



FLINT

# WATER CRISIS

WATER CRISIS

*Report of the Joint Select Committee  
on the Flint Water Emergency*



## **TABLE OF CONTENTS**

Message from the Chairman	3
Summary of Hearings and Reports Received	5
Summary of Reported Findings	6
Timeline of Critical Events	8
An Action Plan to Protect Michigan Residents	12
Proposals and Recommendations	13
Improve Accountability and the Culture in State Government	13
Protect and Promote the Public Health	16
Strengthen Drinking Water Laws and Rules	19
Fortify Our Water Infrastructure & Lead Abatement Efforts	25
Provide Flint with Additional Tools Towards Its Recovery	28
Reform the Emergency Manager Law	30
Conclusion	33

# MESSAGE FROM THE CHAIRMAN

Fellow Legislators:

As Chairman of the Joint Select Committee on the Flint Water Public Health Emergency, I submit this report for your consideration and in fulfillment of the duties imposed on the Committee by Senate Concurrent Resolution 24.

With the submission of this report, I would like to personally convey my gratitude to the many individuals who made this extensive undertaking so valuable. Specifically, I want to extend my heartfelt thanks to the citizens who participated in the committee hearing in Flint. Their perseverance and zeal in the face of adversity served as a lesson to us all, while their testimony gave the Committee direction in which to head with its policy recommendations.

Secondly, I would like to acknowledge the spirit and nature of the Committee. Members from both parties in both chambers put aside their differences and came together for the common cause of protecting Michigan residents. For this, I would like to thank all of the members of the Committee.

It was made clear from the start of this process that the goal of the Committee is to recommend policy improvements to address the Flint water emergency and prevent similar emergencies throughout the state of Michigan. Our primary task was not to find fault or place blame, but rather to identify the means to bring positive change to the people of Michigan and particularly those in Flint.

To that end, the Committee heard from a number of experts, citizens, and government officials involved in many aspects of the Flint crisis. During our six hearings, we took over 18 hours of testimony from over 60 witnesses and reviewed many pages of documents. The quality and quantity of information reviewed provided a robust foundation for the policy recommendations in this report.

It has been my pleasure to serve the citizens of Michigan in this effort. I look forward to your continued support to make the changes necessary to ensure that the people of the Great Lakes State have safe drinking water and a government that works for them.

Respectfully yours,



Senator Jim Stamas  
Chairman, Joint Select Committee on the Flint Water Public Health Emergency



# JOINT SELECT COMMITTEE MEMBERS



**Senator Jim Stamas**  
*Chair*  
*(R) – Midland*



**Senator Joe Hune**  
*(R) – Hamburg*



**Senator Jim Ananich**  
*Minority Vice Chair*  
*(D) – Flint*



**Rep. Ed McBroom**  
*Vice Chair*  
*(R) – Vulcan*



**Rep. Ed Canfield**  
*(R) – Sebawaing*



**Rep. Jeff Irwin**  
*(D) – Ann Arbor*



## SUMMARY OF HEARINGS & REPORTS RECEIVED

The Committee met six times and took over 18 hours of testimony from over 60 witnesses.<sup>1</sup> Committee Rules authorized each member of the Committee to ask an unlimited number of written questions to scheduled witnesses in advance of their public testimony. Copies of all Committee minutes, member questions, and witnesses' answers are available on the Committee's website.<sup>2</sup>

The Committee incorporated into its record over ten hours of Congressional testimony from the U.S. House Committee on Oversight and Government Reform regarding federal administration of the Safe Drinking Water Act in Flint, Michigan on February 3, 2016, March 15, 2016, and March 17, 2016. Congressional hearing transcripts are also available on the Committee's website.

**Tuesday, May 10, 2016; Lansing:** Michigan Infrastructure & Transportation Association, presentation of the April 12, 2016 report entitled "Michigan's Water Infrastructure Investment Needs."<sup>3</sup>

**Monday, April 25, 2016; Lansing:** Keith Creagh, DEQ Director; Nick Lyon, DHHS Director; Chris Kelinskie, Michigan State Police Captain; and Mike Zimmer, Cabinet Director for Governor Snyder.

**Tuesday, April 12, 2016; Lansing:** Ken Sikkema and Chris Kolb, Co-Chairs of the Governor's Flint Water Advisory Task Force, presentation of the March 21, 2016 Task Force Report.<sup>4</sup>

**Tuesday, March 29, 2016; Flint:** LeeAnne Walters, mother and activist; various Flint residents; Dr. Mona Hanna-Attisha, Hurley Medical Center and College of Human Medicine, Michigan State University - Flint; Mark Valacak and Jim Henry, Genessee County Health Department; Dayne Walling, former Flint Mayor; Mike Glasgow, Supr. Flint Water Treatment Plant.

**Tuesday, March 22, 2016; Lansing:** Auditor General Doug Ringler, presentation of the March 2016 Performance Audit (No. 761-0320-15) of the Office of Safe Drinking Water and Municipal Assistance.<sup>5</sup>

**Tuesday, March 15, 2016; Lansing:** Auditor General Doug Ringler, presentation of the March 2016 Performance Audit (No. 761-0320-15) of the Office of Safe Drinking Water and Municipal Assistance.

---

<sup>1</sup> Recordings of the Committee's hearings are available at <https://misenate.viebit.com/#flint%20water>

<sup>2</sup> <http://www.flintwatercommittee.com/>

<sup>3</sup> Report available at [http://www.pscinc.com/LinkClick.aspx?fileticket=x\\_ZkcheIkg%3d&tabid=65](http://www.pscinc.com/LinkClick.aspx?fileticket=x_ZkcheIkg%3d&tabid=65)

<sup>4</sup> Report available at [https://www.michigan.gov/documents/snyder/FWATF\\_FINAL\\_REPORT\\_21March2016\\_517805\\_7.pdf](https://www.michigan.gov/documents/snyder/FWATF_FINAL_REPORT_21March2016_517805_7.pdf)

<sup>5</sup> Report available at [http://www.audgen.michigan.gov/finalpdfs/15\\_16/r761032015.pdf](http://www.audgen.michigan.gov/finalpdfs/15_16/r761032015.pdf)

## SUMMARY OF REPORTED FINDINGS

Before 1967, the City of Flint used the Flint River as its drinking water source. From 1967 through 2014, Flint obtained its water by contracting with the Detroit Water and Sewerage Department (DWSD). During this period, the Flint Water Treatment Plant (WTP) served as an emergency backup to DWSD-supplied water. As such, the Flint WTP was not operated on an ongoing day-to-day basis, but rather four times annually to maintain emergency readiness.

On April 16, 2013, the City of Flint joined the Karegnondi Water Authority (KWA). The KWA was established to develop a water supply pipeline from Lake Huron, but was not projected to be operational until 2016. After being advised of the City of Flint's intent to ultimately use a different water source, DWSD notified Flint that it was terminating Flint's water supply contract, effective April 2014. DWSD and Flint were subsequently unable to agree on alternative water supply terms to cover the period from April 2014 until completion of the pipeline in 2016.

When the DWSD contract ended in April 2014, Flint resorted to use of the Flint River as a water source. This was intended as a temporary move until completion of the KWA pipeline. Water from the Flint River was treated at the Flint WTP on a full-time basis for distribution to residents.

Water treatment is largely governed by a state and federal Safe Drinking Water Act (SDWA). A critical regulation under those laws is the Lead Copper Rule (LCR), which was originally promulgated by the Environmental Protection Agency (EPA). The LCR sets an action level for lead in water at 15 parts per billion (ppb) and requires corrosion control methods that ensure the physical and chemical integrity of water lines. Such treatment was and is utilized by DWSD in the treatment of its water. However, DEQ, which is tasked with interpreting and enforcing the LCR, determined that the Flint WTP did not have to immediately utilize corrosion control treatment upon switching to the Flint River as a water source. Instead, DEQ required the monitoring of lead levels through two 6-month testing periods. Only if lead results from either testing period exceeded 5 ppb would DEQ have required the WTP to use corrosion treatment.

Soon after the Flint WTP began treating and distributing Flint River water, Flint residents began to complain about a multitude of problems. Concerns surrounding the taste, smell, and appearance of the water were widespread. DEQ identified SDWA violations by Flint on several occasions and required corresponding actions to be taken. There were multiple boil water advisories when potentially harmful coliform bacteria were detected in 2014. The WTP attempted to address the bacteria problem through disinfectants, but harmful disinfection byproducts called total trihalomethanes (TTHMs) were soon after detected at unsafe levels.

In late December 2014, the first LCR testing period ended and the lead level results were reported at 6 ppb (i.e., above the 5 ppb threshold initially imposed by DEQ). Instead of requiring corrosion control treatment then, as its own interpretation of the LCR required, DEQ decided to require a second 6-month testing period, which revealed that the lead level had risen to 11 ppb. Meanwhile, test results from some residences, such as LeeAnne Walters', came back at much more alarming levels (>350 ppb).

The presence of elevated lead levels in the water became clear to many, but federal, state and local officials denied the severity of the problem for months. It was not until two key studies published in September 2015 – one from a Virginia Tech research team and another from the Hurley Medical Center in Flint – that the problem was sufficiently acknowledged and corrective actions were pursued.

## SUMMARY OF REPORTED FINDINGS (CONTINUED)

The change in Flint's water source also coincides with a deadly outbreak of Legionnaire's disease in Genesee County, which killed 12 people and resulted in 91 confirmed cases in 2014 and 2015. In contrast, the County typically reports 6-13 cases annually. As of October 2016, the precise cause and scope of the Legionella outbreak continues to be unclear. A recent Virginia Tech study (*Environ. Sci. Technol. Lett.* 2016, DOI: 10.1021/acs.estlett.6b00192), however, suggests a potential causal link between the switch to the Flint River and the legionellosis outbreak.

Ultimately, corrosive water from the Flint River leached lead from aging pipes into the water supply, causing elevated and dangerous levels of the heavy metal (and possibly causing an outbreak of legionella bacteria). It is estimated that between 6,000 and 12,000 Flint children have been exposed to drinking water with high levels of lead, which may have led to a wide range of serious health problems. Due to the change in water source, the percentage of Flint children with elevated blood-lead levels may have risen from about 2.5% in 2013 to as much as 5% in 2015.

As a result of this public health emergency, multiple lawsuits and government investigations were initiated at the local, state, and federal levels. While the results of some of these inquiries may not be known for some time, those that have been completed contain factual findings, sound conclusions, and useful insight.

In March 2016, the Michigan Auditor General found that DEQ's Office of Drinking Water and Municipal Assistance (ODWMA) failed to sufficiently oversee the State's Community Water Supply Program under the SDWA.

The audit identified a wide range of problems, from flawed interpretations of the LCR to problematic sampling methods. Perhaps most importantly, the audit concluded that DEQ acted improperly in failing to require the WTP to implement corrosion control treatment when switching to the Flint River.

The Flint Water Advisory Task Force (FWATF) concluded in March 2016 that while the Flint crisis represents a failure at all levels of government, "the causes of the crisis lie primarily at the feet of the state by virtue of its agencies' failures and its appointed emergency managers' misjudgments." The report explains that DEQ failed to effectively enforce drinking water regulations and the Department of Health and Human Services (DHHS) failed to promptly and adequately act to protect the public health. Both departments ignored data and risks that contradicted their own narratives. The report also found that the Flint WTP improperly rushed into full-time operation of the WTP without adequate preparation. Moreover, the EPA improperly delayed enforcement of the SDWA and LCR, "thereby prolonging the calamity."

As of October 2016, the Michigan Attorney General has filed criminal charges against nine individuals in relation to the public health emergency in Flint. These individuals include Flint's water quality supervisor and several DEQ and DHHS employees. The Attorney General has also filed suit against an engineering firm and a water company that contracted with the City of Flint. Hundreds of other related cases are currently pending in state and federal courts.

### Governor Rick Snyder:

*"Let me be blunt ... This was a failure of government at all levels. Local, state and federal officials — we all failed the families of Flint."*

Testimony before the U.S. House Oversight and Government Reform Committee in Washington on March 17, 2016.



## KEY RESPONSE EVENTS

**September 2, 2015:** Professor Mark Edwards of Virginia Tech reports that the corrosiveness of the Flint River water is causing lead to leach into residents' water and finds that the water is 19 times more corrosive than Lake Huron water due to added chlorine.

**September 24, 2015:** The Hurley Medical Center and Dr. Mona Hanna-Attisha report a significant increase of children with elevated blood lead levels since the water switch.

**September 25, 2015:** Flint issues health advisories regarding lead in the drinking water.

**October 1, 2015:** Genesee County officials declare a public health emergency and the County Health Department issues a "Do Not Drink" advisory. The City of Flint urges residents to filter their water.

**October 2, 2015:** Governor Snyder announces an action plan to address Flint's water issues, including by providing free water filters and testing for residents.

**October 6, 2015:** DHHS begins providing water filters to Flint residents.

**October 8, 2015:** Governor Snyder announces a plan for Flint to return to water from DWSD.

**October 15, 2015:** The Legislature and Governor approve \$9.35 million for Flint to switch to water provided by DWSD.

**October 16, 2015:** Flint reconnects to water provided by DWSD.

**October 19, 2015:** DEQ Director Dan Wyant acknowledges that DEQ staff made mistakes regarding corrosion control in Flint.

**October 21, 2015:** Governor Snyder creates the FWATF to review local, state, and federal actions relating to the Flint public health emergency.

## KEY RESPONSE EVENTS (CONTINUED)

**October 28, 2015:** DEQ issues a construction permit for additional corrosion control treatment at the Flint WTP. Installation is scheduled to begin on November 9, 2015.

**November 3, 2015:** Karen Weaver is elected as Mayor of Flint.

**November 3, 2015:** The EPA issues a memo to clarify the LCR.

**November 4, 2015:** The EPA issues a final report on lead concerns in Flint.

**November 9, 2015:** DEQ notifies Flint that it has until December 31, 2015 to supply the distribution system inventory that should have been completed before 1992 under the SDWA.

**November 16, 2015:** Howard Croft, Director of the Flint Department of Public Works, resigns.

**December 7, 2015:** The initial recommendations from FWATF urge better coordination in responding to the Flint crisis.

**December 9, 2015:** Flint begins corrosion control treatment.

**December 14, 2015:** Mayor Weaver declares a state of emergency.

**December 23, 2015:** The Auditor General finds that “corrosion control should have been maintained” upon the water switch to the Flint River.

**December 29, 2015:** In a letter to Governor Snyder, the FWATF states that the DEQ has “primary responsibility” for the Flint water issues. Director Dan Wyant and Spokesperson Brad Wurfel resign. Governor Snyder apologizes for the crisis.

**January 4, 2016:** Genesee County Board of Commissioners declares an emergency in Flint.

**January 5, 2016:** Governor Snyder declares a state of emergency in Genesee County.

**January 12, 2016:** The National Guard is deployed by Governor Snyder to help in Flint.

**January 13, 2016:** Governor Snyder publicly announces the Legionnaires’ disease spike in Genesee County (87 cases; 9 deaths from June 2014 to November 2015)

**January 14, 2016:** Governor Snyder asks President Obama to declare a federal emergency.

**January 16, 2016:** President Obama declares a federal emergency in Flint, which allows for the provision of federal equipment, resources, and funding to those affected.

**January 19, 2016:** Governor Snyder’s 2016 State of the State focuses on solutions for Flint.

**January 20, 2016:** Governor Snyder starts releasing documents related to the Flint crisis.

**January 21, 2016:** Susan Hedman, Administrator of EPA Region 5, resigns.

**January 21, 2016:** The EPA issues an emergency order on Flint and Michigan’s “inadequate [response] to protect public health.”

## KEY RESPONSE EVENTS (CONTINUED)

**January 22, 2016:** Two DEQ employees are suspended pending an investigation.

**January 28, 2016:** The Legislature and Governor appropriate \$28 million for services in Flint.

**February 4, 2016:** The Legislature extends the Flint public health emergency to April 14, 2016.

**February 5, 2016:** Liane Shekter Smith, the former chief of the ODWMA, is dismissed.

**February 12, 2016:** The State launches a website to host documents released on Flint water.

**February 23, 2016:** Select Committee on the Flint Water Public Health Emergency is created.

**February 23, 2016:** The Legislature and Governor appropriate \$30 million to credit up to 65% of each Flint resident's water bill during the emergency.

**March 17, 2016:** Governor Snyder and others testify before a U.S. House oversight committee.

**March 21, 2016:** Governor Snyder releases a comprehensive 75-point recovery plan for Flint.

**March 23, 2016:** The FWATF issues its final report, which describes failings at all levels of government, particularly DEQ, and proposes changes in practice and in law.

**March 29, 2016:** The Legislature's Joint Select Committee holds a public meeting in Flint.

**April 14, 2016:** The Legislature extends the Flint public health emergency to August 14, 2016.

**April 20, 2016:** Attorney General Schuette announces felony and misdemeanor charges against one Flint WTP employee and two DEQ officials over the water issues in Flint.

**May 4, 2015:** President Obama declares in Flint that "Filtered water is safe" but more work is needed. The Legislature, through each chamber's appropriations committee, transfers \$4.4 million to the DHHS for a Medicaid expansion in Flint.

**May 12, 2016:** The State announces that it will pay for Flint's May water flushing initiative.

**May 20, 2016:** Governor Snyder creates a new Child Lead Poisoning Prevention Board.

**June 15, 2016:** The House Fiscal Agency reports that the Legislature passed multiple supplemental appropriations for Flint totaling \$190.9 million gross in FY 15-16 and also included \$41.3 million gross for one-time appropriations within the enrolled budget for FY 16-17.

**June 22, 2016:** Attorney General Schuette files a civil suit for damages against several companies, including a water company and engineering firm, in connection with the Flint crisis.

**July 29, 2016:** Attorney General Schuette announces criminal charges against six additional current or former DHHS and DEQ employees.

**August 1, 2016:** The Auditor General releases a performance audit on Flint Emergency Expenditures concluding that the expenditures of state agencies have been appropriate.

## KEY RESPONSE EVENTS (CONTINUED)

**August 12, 2016:** Governor Snyder reports that 53% of his 75-point Flint action plan has been completed with continued progress on the remaining intermediate and long-term goals.

**August 14, 2016:** Federal and state emergency declarations end, and the State announces that it will continue to maintain the relief efforts and costs.

**August 30, 2016:** DEQ announces that 146 of the latest 162 water samples are below the Lead Action Level, demonstrating significant improvement despite a typical uptick in lead in summer.

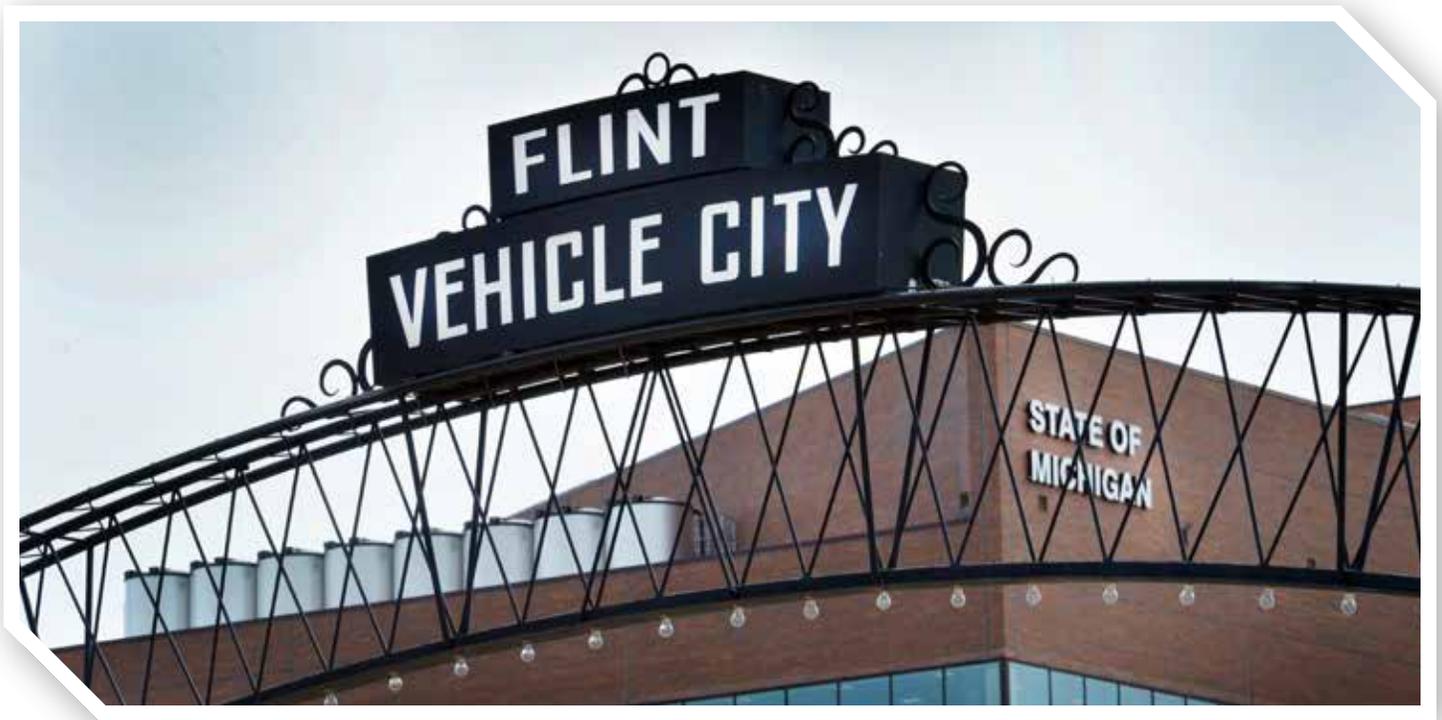
**September 14, 2016:** A former DHHS epidemiologist is convicted of willful neglect of duty.

**September 15, 2016:** The U.S. Senate passes a water resources bill that includes Flint funding.

**September 22, 2016:** Governor Snyder creates the Public Health Advisory Commission and elevates the Chief Medical Executive to a cabinet-level position.



*Auditor General Doug Ringler testifies before the Joint Committee on March 15, 2016 and presents the March 2016 Performance Audit (No. 761-0320-15) of the DEQ's Office of Safe Drinking Water and Municipal Assistance.*



## **AN ACTION PLAN TO PROTECT MICHIGAN RESIDENTS**

The Flint water crisis spurred nationwide inquiries and calls for positive change. Unlike environmental crises that result from a natural disaster, what happened in Flint in 2014–2015 is the result of human errors and poor decisions made over the course of months by officials and employees at the local, state, and federal levels. This series of bad decisions compounded a growing problem that ultimately proved disastrous.

The Joint Select Committee has been charged with examining the various reports outlining the causes and responses to this public health emergency. Additionally, the Committee has been directed to report a summary of that information and recommendations for reform to the Legislature. The purpose of the recommendations is to address the Flint water crisis and prevent similar emergencies in other Michigan communities.

The following pages provide 36 legislative proposals that would bring positive change to Michigan by instituting proper health and safety measures, as well as improving government oversight and accountability. Given the importance of the task at hand, these proposals were primarily guided by concerns for the public welfare, rather than cost and feasibility.

Several of the proposals, including the creation of a state employee ombudsman and a comprehensive rewrite of the Lead Copper Rule, will likely require extensive further deliberation. At least 14 of the proposals, however, can be enacted in the short term and are marked with an asterisk accordingly [Proposals I-3; II-1; II-7; III-4; III-7; III-8; III-10; V-2; V-3; V-5; VI-2; VI-3; VI-4; and VI-5].

# PROPOSALS AND RECOMMENDATIONS

## I. Improve Accountability and the Culture in State Government

*Proposal I-1: The Legislature should consider establishing a State Employee Ombudsman within the Legislature to incentivize the reporting of governmental misconduct and strengthen the Legislature's oversight role over the Executive branch.*

The crisis in Flint demonstrates that public employees are often in the best position to identify and report wrongdoing that could lead to disastrous consequences. For example, one ODWMA employee wrote in a March 2013 email to other DEQ officials that the switch to the Flint River could lead to multiple problems, including increased microbial risks and disinfectant byproducts. Unfortunately, those warnings were ignored. If state employees had a safe alternative outlet to report those risks, then the crisis could have been mitigated.

To protect the public from such misconduct and to ensure proper oversight of the Executive branch, the Legislature should supplement current whistleblower protections by creating a new Ombudsman for state employees, which would allow for confidential reporting of the following types of misconduct to the Ombudsman or legislators:

- Violations or suspected violations of law;
- Departmental conduct or decision-making that will, or is substantially likely to, endanger public health or safety; and
- Gross mismanagement or waste of public funds.

Complainants would be protected against any form of retaliation for their complaints. The Ombudsman would be authorized to investigate reports and claims of retaliation, issue findings, and recommend changes or corrective actions. The primary advantage of locating the Ombudsman within the Legislature rather than the Executive is to ensure that office's independence and avoid the conflicts of interest inherent in self-policing.

Nebraska has similarly enacted a State Government Effectiveness Act, which has proven successful. In assessing the effectiveness of that Act, Nebraska's Ombudsman reported that it "has worked in the sense of providing justice to those state employees who have been whistleblowers" and "as a deterrent in many cases where employers might have been tempted to retaliate against an employee." Michigan should follow suit in order to protect the interests of its residents and hold their government accountable.

*Proposal I-2: The Legislature should consider modifications to the State's Civil Service.*

The Flint Water Crisis shed light on problems inherent with managing a large bureaucracy. Accountability, empowering employees to protect the public, and the ability of the Executive to reward and discipline employees are all issues that deserve their own attention.

State civil service rules serve important purposes, but the current system unnecessarily restricts the ability to discipline employees who egregiously fail to perform their duties. For example, there was clear evidence by September 2015 that the head of the Office of Drinking Water and Municipal Assistance had engaged in misconduct by failing to properly oversee the switch to the Flint River. Instead of being disciplined, she was given a performance bonus that month. Once the crisis became a prominent news story in October, she was simply reassigned to other duties and was not suspended until January 2016. She continued to receive a salary

## PROPOSALS AND RECOMMENDATIONS (CONTINUED)

from taxpayers until February 2016, when she was finally dismissed after a civil service investigation. If proper reforms to the civil service were in place, DEQ could have suspended her without pay or dismissed her months before, to the benefit of taxpayers.

In order to increase accountability, reforms to the state's civil service should be pursued but balanced against the need to preserve due process rights and minimize political influences on the employment process. Reforms to the state Civil Service system would likely require a constitutional amendment accompanied by statutory revisions. Legislation has been introduced in the House in the form of House Joint Resolution MM and House Bill 5677. The Legislature should give consideration to these and other proposals that seek to reform the current bureaucracy.

**Proposal I-3\*:** *The Legislature should enact an enhanced criminal penalty for misconduct by public officials if the offense results in bodily injury to members of the public.*

MCL 750.505 provides that any person who commits a common law crime is guilty of a felony punishable by up to five years imprisonment and/or up to a \$10,000 fine. One common law crime covered by the statute is misconduct in office, which is the basis for several of the criminal charges brought by the Attorney General against state officials in relation to the Flint crisis.

Unfortunately, the statute's one-size-fits-all penalty does not properly account for the most egregious type of misconduct that results in bodily injury to members of the public. Flint children have been exposed to lead due in part to the misconduct of state and local officials. That type of misconduct, particularly by management-level officials as opposed to employees, ought to lead to a greater punishment than, for example, an official playing golf while he or she should be in the office working.

The Legislature should amend MCL 750.505 accordingly by adding a new enhanced criminal penalty with a maximum of 10 years imprisonment and/or up to a \$25,000 fine if a public official commits a common law crime that causes bodily injury to another person. This will help deter the egregious type of misconduct that harmed Flint residents, while also ensuring that such conduct is proportionately punished.

**Proposal I-4:** *The Legislature should consider creating a Commission of Environmental Quality as the new head of the DEQ.*

The Michigan Department of Environmental Quality is tasked with managing the State's air, land, and water resources to support a sustainable environment, healthy communities, and a vibrant economy. A Director appointed by the Governor heads the DEQ, and all deputy directors for the Department's various programs and divisions answer to the Director.

The Flint crisis has demonstrated that this structure likely facilitated and exacerbated communication and accountability problems within DEQ. For example, the Flint Water Advisory Task Force found that the Department "dismissed expressed concerns of Flint residents, elected officials, and external subject matter

## PROPOSALS AND RECOMMENDATIONS (CONTINUED)

experts (as well as EPA).” It recommended implementation of a “proactive, comprehensive cultural change program within MDEQ” to “refocus the department on its primary mission to protect human health and the environment.” To that end, the Legislature should consider an improved management structure that allows for greater accountability and provides the public with the means to evade the complex bureaucracy of the Department.

A specific solution is to create a Commission of Environmental Quality to manage and oversee the Department. Similar commissions have been successfully used for years in other states like Texas and Oregon. The new Commission would consist of seven members appointed by the Governor from each of the following areas of expertise: business and manufacturing; public utilities; waste management; local government; conservation or environmental protection; public health; and agriculture. The Commission’s duties would include:

- Appointing the Director of the Department;
- Establishing general principles and policies to guide the Director;
- Consulting with the Director on matters relating to the Department;
- Providing a forum for public review of administrative rules, permits, orders, proposals, and other departmental actions;
- Recommending that the Governor declare an emergency or disaster when appropriate;
- Conducting inquiries, studies, and investigations, as well as holding hearings and receiving complaints from the public;
- Developing annual recommendations regarding administrative rulemaking; and
- Reviewing actions by the Department to ensure they are based on sound science with due concern for economic impact, as well as risk and benefit to the public and the natural resources of the State.



*Nick Lyon, DHHS Director (on the left) and Keith Creagh, DEQ Director (on the right) testify in front of the Joint Committee April 25, 2016.*

# PROPOSALS AND RECOMMENDATIONS (CONTINUED)

## II. Protect and Promote the Public Health

**Proposal II-1\*:** *The Legislature should enact a statute re-establishing the Childhood Lead Poisoning Prevention and Control Commission.*

The Michigan Childhood Lead Poisoning Prevention and Control Commission was created by PA 431 of 2004 to:

- Maximize the effectiveness of Michigan’s public health infrastructure;
- Mobilize and enable the private sector infrastructure; and
- Integrate the capacity and effects of public and private sector strategies to prevent and control childhood lead poisoning through public awareness, testing and treatment of lead poisoned children, and prevention and remediation of lead hazards.

The Commission provided an annual report and recommendations to the Governor, the Department of Health and Human Services, the Department of Environmental Quality and the Legislature, as well as a long-term strategy to eliminate lead poisoning in Michigan. The Commission was allowed to sunset, however, in 2010. Although Governor Snyder recently re-created it through Executive Order, the Legislature should codify that action and permanently re-establish the Commission so that it outlasts the current administration. The Legislature should consider using SB 1139 (Ananich) and SB 1140 (Ananich) for this purpose.

**Proposal II-2:** *The Legislature should consider creating a public health emergency alert system to notify residents of significant public health hazards as they arise, similar to the Amber Alert system.*

In the midst of the water crisis, there were reports that some Flint residents did not know the water was dangerous to drink even after such was declared publicly. To prevent that from occurring in the future, the Legislature should work with DHHS, local health departments, and medical professionals to develop a secure alert system with the capability to provide key notifications about public health threats to health professionals, response partners, and affected residents.

Legislation to alert residents of a public safety threat was recently enacted and the Legislature could use a similar model to provide for public health alerts. The Michigan Health Alert Network (MIHAN) could also provide a starting point for corrective action. MIHAN is a secure web-based notification system created by the State of Michigan to alert key personnel of conditions that could adversely impact the health and safety of Michigan’s citizens. MIHAN provides situational awareness about important health-related information. The system could be updated to allow for more coordination and information sharing between a larger group of state departments, local entities, and professionals. It could also be updated so that certain emergency warnings can be sent to interested or affected parties through widely accessible mediums, such as email or text.

**Proposal II-3:** *The Legislature should consider requiring state and local health departments to promptly share medical and epidemiological information regarding a condition of public health with interested experts and medical professionals.*

Both the DHHS and Genesee County Health Department failed to respond timely to requests for information from a licensed professional investigating the possible connection between blood-lead levels in Flint’s children and the 2014 switch to the Flint River. The Flint Water Advisory Task Force found that the Department’s

## PROPOSALS AND RECOMMENDATIONS (CONTINUED)

reluctance to share data obtained under the Childhood Lead Poisoning Prevention Program with experts like Dr. Mona Hanna-Attisha and Professor Marc Edwards prolonged the Flint water crisis. The Committee agrees with this troubling conclusion and urges the Legislature to consider instituting a requirement that state health data be shared with interested experts upon request. This requirement can either be codified into the Public Health Code or the Legislature can direct DHHS to amend its existing rule on the investigation of diseases and the exchange of information (R 325.174). The solution should also include strong penalties for non-compliance to deter the type of misconduct that Dr. Hanna-Attisha and Professor Edwards encountered.

**Proposal II-4:** *The Legislature should consider modernizing and updating the Public Health Code to better reflect emerging public health concerns.*

Michigan's Public Health Code, which provides the basic framework for healthcare in the State and covers a range of issues from professional licensing to medical records and immunization requirements, was written in 1978. Many practitioners have noted that the industry has changed dramatically since that time and the Code is now out-of-date, internally inconsistent, and subject to misinterpretation. Governor Snyder called for a review of the Code in his 2011 health and wellness message and the Legislature should revive that effort. The Flint water crisis demonstrated, for example, that the Code did not adequately delineate to DHHS and local officials their authority and responsibilities in response to cases involving lead exposure and Legionellosis. Those inadequacies should be addressed now to prevent similar problems from occurring in the future.

**Proposal II-5:** *The Legislature should consider instituting more robust blood-level screening policies for children in schools.*

A recent Reuters investigation found that millions of children nationwide are falling through the cracks of early childhood lead testing requirements. The Flint Water Advisory Task Force report similarly found that “[t]oo few children in Michigan are screened for lead through routine blood tests as recommended for children ages 1 and 2.” While Medicaid rules provide for developmental screening in a child’s first few years, such provisions have been under-utilized and Michigan notably does not require universal testing for lead exposure in children. This is critical because although many of the effects of lead poisoning are irreversible, early discovery can allow for early intervention and treatment.

Whether it be a targeted program based on risk and potential exposure or a universal one, the need for improvement from the status quo is clear and the Legislature should consider instituting a more robust blood-level screening policy for school-age children.

## PROPOSALS AND RECOMMENDATIONS (CONTINUED)

**Proposal II-6\*:** *The Legislature should direct DHHS to work with local health departments and professionals to assess the viability of using children's baby teeth to establish a more accurate measurement of lead in blood levels than is currently available with blood-lead testing.*

The Committee heard testimony from Dr. Mona Hanna-Attisha indicating that blood-lead tests can reveal recent exposure to lead (up to 20-30 days) but have limited utility when it comes to shedding light on past exposure. To understand the effects of lead exposure and properly formulate a plan for corrective action, a more complete picture is needed than what blood-lead tests can reveal, particularly with children in Flint.

Because lead is absorbed by bone, one way to better assess exposure is through bone biopsies. However, they are costly, invasive, and painful. A better alternative to obtain exposure data could be to test teeth. As baby teeth fall out, for example, parents could have them tested. Various medical professionals have proposed using this method, and the Legislature should consider directing DHHS to craft and implement such a program, at least for Flint. Collected data could be used, in part, to inform a lead exposure registry if one is created (see Proposal V-4 below).



*Dr. Mona Hanna-Attisha, of Flint's Hurley Medical Center testifies before the Joint Committee on March 29, 2016 and described her efforts in charting the blood lead levels of Flint children.*

# PROPOSALS AND RECOMMENDATIONS (CONTINUED)

## III. Strengthen Drinking Water Laws and Rules

**Proposal III-1:** *The Legislature should consider moving the entity responsible for enforcing the Safe Drinking Water Act – the Office of Drinking Water & Municipal Assistance – from the Department of Environmental Quality back to the Department of Health and Human Services.*

The Flint Water Advisory Task Force found that the ODWMA suffers from cultural shortcomings that prevent it from adequately serving and protecting the health of Michigan residents. It concluded that DEQ failed to work in tandem with DHHS to investigate the possibility that the Flint water system contributed to an unusually high number of legionellosis cases. If the ODWMA had been under the Department that is primarily focused on public health – DHHS – the potential for such failings could have been minimized or eliminated.

This is not a novel concept. The ODWMA was previously in the Department of Community Health before it was moved to its present day position within DEQ. Moving the ODWMA back to DHHS not only ensures that public health is a primary concern in the regulation of water supplies, but also bridges the communication and enforcement gaps between the two departments that were highlighted during the Flint water crisis.

**Proposal III-2:** *The Legislature should ensure adequate funding levels to sufficiently cover DEQ's monitoring costs, as recommended by the Auditor General.*

In its 2016 performance audit of the ODWMA, the Auditor General found that annual fees alone do not sufficiently cover DEQ's cost of monitoring water supplies. Amending MCL 325.1011a-b to allow for the recovery of an adequate fee levels to sufficiently cover DEQ's costs and allow for proper staffing and enforcement.

**Proposal III-3:** *The Legislature should consider heightening competency and experience requirements for water treatment operators.*

The Flint Water Advisory Task Force found, and the Committee record confirms, that Flint Public Works personnel were ill prepared to assume responsibility for the full-time operation of the Flint Water Treatment Plant and distribution system. They utilized inadequate treatment technologies and failed to comply with unambiguous requirements in the Lead Copper Rule. For example, personnel did not identify residences with lead service lines or secure an adequate number of tap water samples from high-risk homes. Such human errors, along with the resulting harms, could have been avoided and the Legislature should address this shortcoming of current law.

To this end, MCL 325.1005, which provides rulemaking authority to DEQ regarding certification of water treatment plant operators, could be amended to require the Department to promulgate new rules with heightened certification requirements. In doing so, however, the Department should balance the need for more qualified operators against considerations of supply and availability. This may require a multi-tier approach to training and certification standards, which can be based on the size of each particular system and the potential risk for harm.

# PROPOSALS AND RECOMMENDATIONS (CONTINUED)

**Proposal III-4\*:** *The Legislature should strengthen enforcement mechanisms to ensure compliance with the Act by establishing a new tiered system of penalties and fines, and requiring customer notification of Act violations.*

Currently, under MCL 325.1021, a person who violates the Safe Drinking Water Act or rules promulgated under the Act is guilty of a misdemeanor crime, punishable by up to one-year imprisonment and/or up to a \$5,000/day fine. This one-size fits all approach to regulatory enforcement should be better tailored to deterring and punishing conduct that carries the greatest potential for harm, such as that involved in the Flint water crisis.

For example, Mike Prysby, District Supervisor with the ODWMA, currently faces two criminal charges for treatment and monitoring violations under the Act. While the conduct underlying both charges is problematic, evidence suggests that Mr. Prysby's failure to require corrosion control treatment in particular may have caused actual physical harm to Flint residents. Yet current law treats that harmful conduct the same as his technical failure to abide by sampling protocols. It is counterintuitive and poor policy for the former to be penalized the same as the latter.

To achieve better proportionality in punishment and stronger deterrence, a new tiered system of penalties and fines should be adopted as follows:

- First offense → current penalty (1 year misdemeanor and/or up to a \$5,000 per day fine)
- Repeat offense → 2 year felony and/or up to a \$7,500 per day fine
- Offenses that cause any person physical injury that requires medical attention or care → 5 year felony and/or up to a \$10,000 per day fine.

Other parts of the Act should also be revised as follows:

- MCL 325.1022 should be amended to increase the daily penalty for a violation of the Act that the AG brings an action for injunctive relief over from \$5,000 to \$7,500.
- MCL 325.1007 should be amended to double the maximum fines for all water suppliers who incorrectly or fail to submit water samples as required by the Act or fail to meet state drinking water standards.
- To increase transparency and accountability, a new section should be created that requires customers of a water supply to be notified of any violations by their supplier in each billing statement for the period in which the violations occur.

**Proposal III-5:** *The Legislature should consider creating a statewide Advisory Commission on Drinking Water Quality made up of industry experts, citizens, health professionals, and local officials.*

The Flint water crisis has clearly demonstrated the need for better coordination and involvement from all those involved in the treatment and distribution of our drinking water, as well as the need for more citizen involvement in drinking water policies. At the federal level, there is a National Drinking Water Advisory Council that supports the Environmental Protection Agency in performing its duties relating to drinking water. It is made up of 15 members ranging from industry and health experts to members of the public. Michigan could benefit from creating a similar entity to fix the structural and operational deficiencies in the delivery of safe drinking water statewide. To that end, Senate Bill 829 (Ananich) should be reviewed as an option.

# PROPOSALS AND RECOMMENDATIONS (CONTINUED)

A new Advisory Commission on Drinking Water Quality should be created and vested with the following duties:

- Solicit and hear **citizen complaints** on water safety and quality, including the hosting of a website to receive and maintain public comments on drinking water quality and the Commission's activities;
- Monitor and recommend **best practices** for ODWMA and local water systems to optimize the protection, quality, and safety of drinking water;
- Develop an **annual interactive training program** for state and local staff on lead in water, health effects of lead, and the Lead Copper Rule;
- Draft a **model educational campaign** for local water systems to educate the public on the danger of drinking water contaminants like lead and copper. The model campaign shall include specific information on the potential adverse health effects and sources of lead contamination in infants, children, and fetuses, the cost and availability of replacement fixtures, and medical assistance information. It should be regularly updated and the Commission should work with the Department of Civil Rights to ensure that the educational materials are available in various languages in order to serve all Michigan residents;
- Provide advice and counsel to the Governor, Legislature, and impacted state and local agencies on the implementation of the Act and areas for improvement through **biennial reports**;
- Help **oversee the indexing and cataloging of all water infrastructures** throughout the State, including the receipt of system-wide reports (see Proposal IV-1 below);
- Continually assess water testing, monitoring, treatment, and control protocols, practices, and scientific developments in the field;
- **Advise ODWMA** as it promulgates rules under the Act, including those revisions required by the legislative reforms contained in this report; and
- **Audit municipalities' water infrastructure** and promote the digitization of records, including a statewide database that allows for the electronic submission of results to ODWMA.

*Proposal III-6: The Legislature should consider strengthening Michigan's Lead and Copper Rule to make it more protective than its federal counterpart and a model for other states to follow.*

One of the primary causes of the Flint water crisis was a poorly written, interpreted, and applied Lead Copper Rule. This rule, which was promulgated by the federal government and adopted in Michigan, is simply insufficient to protect Michiganders. To address this deficiency, the Legislature should require the ODWMA to promulgate within one year a revised LCR that not only clarifies all of the ambiguities that led to the Flint crisis, but also exceeds the federal requirements in key respects.

The revised rule should, at a minimum:

- Establish by January 1, 2020 a bifurcated lead action level (LAL) with two alternative standards that trigger the same regulatory requirements in order to provide more protection than the federal LAL.
  - o Standard 1: The lead concentration exceeds 10 ppb in more than 10% of taps sampled (down from 15 ppb currently). The Legislature should consider the approach of SB 1118 (Ananich) and establish future LALs according to then reasonably available scientific and economic data.

## PROPOSALS AND RECOMMENDATIONS (CONTINUED)

- o Standard 2: Tap samples demonstrate a dangerous upward trend in lead concentration, even if the LAL threshold would not otherwise be met.
  - For example, the new standard could be set to trigger if there is a 50% annual increase in samples with lead levels at 5 ppb or above. Such an early warning could have been helpful in Flint, where test samples with lead levels of 5 ppb or higher rose from 17% in 2014 to 41% in 2015.
- Require water suppliers to promptly contact both state and local health departments for follow up and monitoring, particularly for priority locations such as schools, hospitals, and childcare centers, if the LAL is exceeded.
- Establish a new Household-specific Action Level (HAL) of between 7-15 ppb that, if exceeded, would require a water system to promptly notify the resident, ODWMA, and state and local health departments. The HAL should also trigger access to blood lead testing for the home's residents.
  - o While the FWICC Policy Subcommittee recommended a HAL of 40 ppb, that level is far too high. Any resident whose home returns samples above the federal action level must be adequately informed, and the Legislature should employ a stricter standard than FWICC recommended.
- Enhance notification requirements by shortening the time frame in which a water supplier must notify users of different types of lead-related violations. To this end, the Legislature should consider:
  - o HB 5120 (H-3) (Neeley), which shortens the notification time for Tier II violations of the Act from a 30 days to a two business days maximum; and
  - o Reducing the time frame for community wide notices, which are required when the LAL is exceeded, from 60 days to 20 business days.
- Require a comprehensive lead and copper analysis report at least one year prior to any change in water source, except for emergency situations with ODWMA approval. Reports must be posted on the ODWMA's website, as well as that of the supplier. To this end, the Legislature should consider working off of SB 726 (Jones), which requires source water testing before a supplier can switch water sources.
- Enhance corrosion control protocols by requiring:
  - o That all corrosion treatment and planning be performed under the guidance of a licensed engineer and under state supervision;
  - o A supplier to complete and make publicly available an evaluation report six months prior to any adjustment in corrosion treatment, unless such is in response to elevated lead levels or in an emergency situation with ODWMA approval; and
  - o A rebuttable presumption in favor of the use of corrosion control treatment when a supplier switches to a new water source if treatment was used with the previous source.
- Improve sampling protocols by:
  - o Requiring water suppliers to distribute sampling protocols that are approved by ODWMA (and, if created, the Advisory Commission; see Proposal III-5 above) to residents who choose to collect their own samples;
  - o Requiring ODWMA to quickly order and oversee re-sampling if it determines that sample site information was inaccurate or that sample results did not meet the appropriate site selection criteria or sampling protocols;

## PROPOSALS AND RECOMMENDATIONS (CONTINUED)

- o Prohibiting a sample from being discarded without advanced notification and explanation to the property owner/resident;
- o Requiring supplemental testing of certain facilities that hold children or fragile adults, including schools, day care centers, nursing homes, hospitals, and adult foster care and health facilities. The following bills have been introduced to that end and could be used as the basis for reform:
  - HB 5285 (Zemke) (water testing at public schools);
  - HB 5440 (Kosowski) (water testing at nonpublic schools);
  - HB 5553 (Kosowski) (water testing at colleges and universities);
  - HB 5554 (Kosowski) (water testing at hospitals);
  - HB 5461 (Neeley) (water testing at childcare centers); and
  - SB 724 (Jones) (water testing at schools).
- o Retaining current sample size requirements for large water systems, but repeal the exception that allows for reductions in sample size;
- o Requiring that sampling occur in summer months unless an alternative schedule is approved by ODWMA based on knowledge that quality problems are worse in other periods for that specific water system; and
- o Requiring two draws for samples and prohibiting pre-flushing or aerator cleaning within a defined period prior to sampling. The Legislature should consider working off of HB 5094 (Neeley) to achieve this goal.

Testing drinking water in Michigan's public schools recently began on an interim basis. A long term solution as provided by SB 724 (Jones) or HB 5285 (Zemke) is needed to extend the testing beyond 2017. Beginning October 17, 2016, the MDEQ in cooperation with the Department of Education began reimbursing public schools and registered nonpublic schools up to \$950 per school building for drinking water testing, fixture replacements, plumbing assessments, or filter purchases for expense incurred between July 1, 2016, and September 30, 2017.

**Proposal III-7\*:** *The Legislature should institute billing practices that are fairer to water customers and require water suppliers to identify the source and destination of all water fees and assessments in a customer's bill.*

Two hallmarks of fair billing are complete information and clear communication. Fees and assessments should be unambiguous and easily understood by customers. The Legislature should consider codifying these requirements and forcing providers to identify the source and destination of all fees and assessments in a customer's bill. For example, bills should provide clear and unambiguous differentiation between operational fees and infrastructure investment funds. This level of information will lead to better-informed residents with more confidence in the systems that serve them. Moreover, the Legislature should consider measures to ensure that water suppliers engage in fair and honest billing practices. HB 5110 (Garrett) and HB 5178 (Canfield) have been introduced to that end and should be considered.

# PROPOSALS AND RECOMMENDATIONS (CONTINUED)

**Proposal III-8\*:** *The Legislature should force water suppliers to be more transparent about their ratemaking, billing, and shut off practices by requiring an annual report to DHHS.*

The public has a right to know about the ratemaking, billing, and shut off practices of its water suppliers. HB 5093 (Plawecki) has been introduced to achieve such transparency and should be considered. The bill requires water suppliers to file annually with DHHS and post on their website a report that contains all of the following information:

- A list of the categories of rate payers and users of the provider, including commercial, residential, nonprofit, and exempt users;
- The rates charged for water, sewerage, and storm water service by that provider, broken down by categories of rate payer;
- The average monthly bill for customers that have 2, 4, and 6 individuals in that household;
- The process by which those water and sewerage service rates were determined;
- The total number of shutoffs of water and sewerage service that occurred that year;
- The provider's policies and procedures regarding shutoffs of water and sewerage service; and
- Any assistance programs the provider has available for low-income customers.

**Proposal III-9:** *The Legislature should explore programs to assist low income residents in paying their water bills that are similar to the "Help Others" program in other states.*

With poverty levels around 40% and drinking water rates among the highest in the nation, the City of Flint provides many poignant examples of citizens who could benefit from assistance in paying their water bills. The Legislature should, at a minimum, consider private programs to provide relief to low-income customers, which could be fashioned after existing programs in other jurisdictions.

To illustrate, the New Jersey American Water has been assisting low-income customers who qualify through its H2O Help to Others Program for nearly a decade. Under this type of program, water utility customers who want to help others in need can do so by contributing a donation as part of their monthly water bill payment. Donations can be made as a one-time gift or monthly donation of \$1, \$3, or \$5. In North Carolina, customers can make monthly contributions through rounding up their bill to the next highest dollar. The federal government has recently begun exploring the concept of a program to assist low income customers that would be modelled after the federal Low Income Home Energy Assistance Program. The Legislature should monitor those efforts and explore their possible adaption at a state level in Michigan. Michigan residents could greatly benefit from a program similar to those found in New Jersey and North Carolina, especially if such is combined with more state funding (perhaps in the form of matching customer donations).

**Proposal III-10\*:** *The Legislature should require the use of water filters on faucets in state regulated facilities used by vulnerable populations.*

The Legislature appropriated funds this year to pay for the replacement of plumbing fixtures in both adult foster care and child care facilities, schools, hospices, nursing homes, hospitals, and surgical centers in Flint. These state regulated facilities provide drinking water to vulnerable populations that need protection the most. The Legislature should now take the next step in that effort by requiring filters to be installed on each drinking water faucet in these facilities. Filters should have to meet NSF Standard 53, which is the nationally recognized standard for drinking water filtration.

# PROPOSALS AND RECOMMENDATIONS (CONTINUED)

## IV. Fortify Our Water Infrastructure & Lead Abatement Efforts

*Proposal IV-1: The Legislature should consider requiring each community water supplier to complete, within five years, an inventory and index of all water system components.*

A national survey of lead service line occurrence published in the American Water Works Association Journal in April 2016 estimated that there are 460,000 lead service lines in Michigan. Unfortunately, that is just a guess, as many cities in Michigan (including Flint) have failed to properly inventory their water distribution systems. While some localities have electronic databases of their water infrastructure, others are still relying on paper records and some have no information about lead service lines at all. This is unacceptable.

For example, this year the University of Michigan in Flint estimated that there are at least 4,000 lead lines in Flint and over 11,000 residential properties with unknown service line connections. Many of the records it looked at were on 3-by-5 index cards or old maps. EPA officials have found that some lead service lines do not exist despite records to the contrary.

Figuring out which homes have lead lines, particularly in Flint, is a critical part of moving forward and ensuring that a similar crisis does not happen elsewhere in Michigan. The Legislature should therefore require that each community water system inventory the age, history, and length of each component in its distribution system (e.g., service lines). It should be required that each system submit their inventory to the ODWMA and, if created, the Advisory Commission (see Proposal III-5 above), and post the same on the supplier's website.

*Proposal IV-2: The Legislature should consider modernizing the protocol for Lead Service Line (LSL) replacement to help transition away from lead lines in all communities.*

When water systems fail to properly limit corrosion through treatment and the lead action level is exceeded, the Safe Water Drinking Act requires the system to replace lead service lines. More specifically, the system must replace the portions of the lines owned by the system and offer to replace each customer's portion at the customer's cost. A partial lead service line replacement is when the system replaces its portion of the line but a customer decides not to replace theirs.

While doing something may seem better than doing nothing, studies have shown that not to be the case with lead service line replacements. To the contrary, it has been shown that a partial line replacement actually results in immediate increases in lead levels, sometimes by as much as double. Professor Marc Edwards has accordingly recommended to "allow only full replacements or, if partial replacements cannot be avoided, require use of plastic pipes instead of copper."

Eliminating partial LSL replacements is only one part of the solution, however. The Committee record demonstrates that a more comprehensive plan is needed to prevent a crisis like Flint's from ever occurring again. To address these scenarios, the Legislature should amend current law to:

- Require every public water system to adopt a full LSL replacement program within 10 years;
- Prohibit partial LSL replacements during LCR remediation, unless the ODWMA finds good cause to grant a variance. If a variance is granted to allow a partial LSL replacement, then the use of copper pipes must be prohibited;

## PROPOSALS AND RECOMMENDATIONS (CONTINUED)

- Require prioritized LSL replacement based on estimated length and age of service line, history of high lead water and high lead blood results, vulnerable populations, and location of other distribution system improvements, such as water main replacements;
- Require secondary notification to neighborhood homeowners during the replacement process to warn of physical disruption dangers; and
- Require permitting authorities under the Construction Code to notify the ODWMA and the local water system when a permit is issued for replacement of a home service line.

**Proposal IV-3:** *The Legislature should ensure that homeowners and renters are better informed about their exposure to lead service lines.*

To better protect homeowners and renters by empowering them with the information necessary to make decisions about LSL replacement, the Legislature should consider requiring LSL disclosure statements in all home sale and rental contracts.

The Legislature should also consider HB 5459 (Phelps), which requires water systems to provide annual notice to customers whose residences are known to be serviced by a LSL. The notice should contain information regarding the health effects of lead and advice on the household use of water, including any flushing instructions that may reduce the threat posed by the presence of lead or copper in the water.

**Proposal IV-4:** *The Legislature should consider expanding financing opportunities to facilitate the replacement of lead service lines and other lead remediation efforts.*

Another solution to the problem of lead service lines has been introduced in the form of HB 5860 by Representative Holly Hughes. This bill would allow the Drinking Water Revolving Fund that is administered by DEQ to issue low-interest loans to local units of government for the purpose of replacing service lines made of materials like lead that pose a health risk. Currently, such projects are not eligible for low-interest financing under the Fund, which was designed to assist water suppliers in satisfying the requirements of the Safe Drinking Water Act. Expanding eligibility to facilitate the replacement of lead service lines would bring Michigan one significant step closer to ensuring that all drinking water is lead-free.

A related solution worth considering is the creation of a new Lead Free Trust Fund for the specific purpose of financing various lead abatement and remediation projects statewide. The Fund could supplement the existing Drinking Water Revolving Fund and should be designed to aid localities that employ best management practices, such as adoption of a long-term asset management plan and full-cost pricing. One potential revenue source that could be utilized for the Trust Fund is the Health Endowment Fund (see Proposal V-5 below). The Fund could be overseen by a multi-member Board appointed by the Governor that recommends appropriations to the Legislature, similar to the Natural Resources Trust Fund Board.

Lastly, the Legislature should consider acting on HB 5423 (Price), which allows localities to adopt LSL replacement financing programs. These programs would provide localities with the flexibility to contract with property owners to finance the replacement of their lead service lines. A participating locality would pay the upfront costs of the project and customers would repay via an added charge to their utility bill.

## PROPOSALS AND RECOMMENDATIONS (CONTINUED)

HB 5425 (Kosowski), SB 731 (Ananich), and SB 871 (Ananich) are additional bills that have been introduced on this topic that should be reviewed and their content considered for further discussion.

*Proposal IV-5: The Legislature should consider establishing an Underground Asset Management Council patterned after the Transportation Asset Management Council.*

Testimony before the Committee described the need for a statewide asset management council for Michigan's underground infrastructure that is modeled after the Michigan Transportation Asset Management Council formed in the late 1990s. That Council is now viewed as one of the best monitoring systems for roads and bridges in the nation. By creating of a new Underground Asset Management Council to develop and advance a best practice approach for water infrastructure systems, the Legislature can take another step towards making sure what happened in Flint does not happen anywhere else.



*LeeAnne Walters, the Flint mother of four who brought public attention to the Flint Water Emergency, describes her family's experiences to Joint Committee members during the March 29<sup>th</sup> hearing at UM-Flint's North Bank Center.*

# PROPOSALS AND RECOMMENDATIONS (CONTINUED)

## V. Provide Flint with Additional Tools Towards Its Recovery

*Proposal V-1: The Legislature should consider legislation that would help spur economic development in Flint.*

This past summer the Michigan Economic Development Corporation approved a \$5,700,000 performance loan to C3 Venture, an automotive supplier, for relocating manufacturing operations from China to Flint. The investment is projected to rehabilitate a vacant property and create 380 jobs for Flint residents. More strategic partnerships with the private sector like this could significantly help spur economic development in Flint.

There have also been reports about a potential public-private partnership to help Flint area roadway improvement projects for Bishop Airport, the I-69 and I-75 interchange, and the old Buick City property. Because transportation investments often drive economic development, legislative changes to facilitate these types of partnerships should be pursued. Other bills that the Legislature should consider may include SBs 1061-65, which create a new transformational brownfield planning program that would aid large-scale development projects in troubled areas like in Flint. While such tax and development programs have not been favored in Michigan in recent years, the crisis in Flint presents an exceptional circumstance that may warrant an atypical solution.

*Proposal V-2\*: The Legislature should allow Flint to utilize a recovery authority to manage its response to the water crisis.*

Senator Ananich has introduced SB 979 to allow Flint to form a municipal recovery and development authority that would last no more than 15 years. The authority would be able to provide funding to Flint to promote and assist in its recovery and economic development. It would also permit the authority, with voter approval, to levy a tax of up to 0.5 mill on taxable property in the locality and allow it to borrow money and issue revenue bonds. An 11-member board of directors would govern the authority.

The Legislature ought to give serious consideration to SB 979 to allow an authority to administer the response to the water crisis (e.g., removing lead service lines) while the city government returns its focus to providing regular services. This would ensure that residents continue to receive the services they rely on from the city, while also ensuring that effective responses to the water crisis continue at the local level.

*Proposal V-3\*: The Legislature should make Flint eligible to become a promise zone, similar to the Kalamazoo Promise, to promote postsecondary education for Flint students.*

A public-private partnership helped fund tuition for all Kalamazoo high school graduates seeking a postsecondary education under a program known as the Kalamazoo Promise. The Legislature should consider facilitating a similar partnership in Flint. To this end, the Legislature should consider SB 999 (Ananich), which makes Flint eligible to become a promise zone where postsecondary education students could be promised financial assistance towards their tuition. This will encourage Flint residents to attend college while helping them deal with the high costs of education.

## PROPOSALS AND RECOMMENDATIONS (CONTINUED)

**Proposal V-4:** *The Legislature should consider establishing and maintaining a Flint Toxic Exposure Registry that includes all children and adults residing in Flint from April 2014 to present.*

The purpose of the registry would be to track, assess, and evaluate the adverse health effects of the water crisis on the exposed population, particularly the relationship between lead exposure and chronic health effects. The primary goal should be to facilitate epidemiology research by establishing multiple databases that contain demographic, environmental, and health information on Flint's exposed population. Because knowledge is a prerequisite to action, the research and findings from the registry should be disseminated to individuals, public health professionals, healthcare providers, and policy makers.

The Pediatric Public Health Initiative (PPHI) at Michigan State University-Hurley Children's Hospital (<http://humanmedicine.msu.edu/pphi/>) is currently at work to improve outcomes for the children of Flint who have been affected by exposure to increased lead levels as a result of the public health crisis. The initiative brings together a team of experts in pediatrics, child development, psychology, epidemiology, nutrition, toxicology, geography, education, and community and workforce development to build a model pediatric public health program. A registry could serve to further this effort and the State should explore opportunities to work with PPHI as they assess, track and work to mitigate the impact of the Flint Water Crisis on the young residents of Flint.

**Proposal V-5\*:** *The Legislature should expressly allow the Health Endowment Fund to be used to provide health-related services relief in Flint.*

PA 4 of 2013 requires Blue Cross Blue Shield of Michigan to contribute up to \$1.56 billion over 18 years to a newly created Health Endowment Fund. The Fund's purpose is to support efforts to improve the quality of health care while reducing costs, as well as to fund health and wellness programs for minor children and seniors throughout the state.

In light of the public health emergency in Flint, the Legislature should amend the Fund's enabling statute to expressly provide that such could be used to specifically address the situation in Flint. Moreover, Flint-aimed funding should be made a priority under the statute. The Fund has already provided more than \$500,000 for Flint-related services, but more is undoubtedly needed. To this end, a starting point for change could be SB 986 (Kowall), which expressly allows the Fund to be used for public health emergencies like in Flint.



# PROPOSALS AND RECOMMENDATIONS (CONTINUED)

## VI. Reform the Emergency Manager Law

*Proposal VI-1: The Legislature should consider replacing the single-person emergency management structure with a three-person Financial Management Team comprised of a Financial Expert, a Local Government Operations Expert, and a Local Ombudsman.*

Proponents of PA 436 of 2012 posit that emergency management is a critical tool that is needed to address instances where local resources are egregiously mismanaged. Because local governments are ultimately creatures of the State, it is the State's responsibility to ensure that its political subdivisions operate effectively and efficiently.

Opponents of the law, in contrast, argue that the decision to enter emergency management under the Local Financial Stability and Choice Act vests almost complete power over a local government in a single, unelected individual who does not adequately take citizen concerns into account. Critics use the example of Flint to demonstrate that emergency managers often focus too heavily on the financial implications of decisions rather than on public health or community desires.

While it is incontrovertible that strong mechanisms to put failing localities back on course are necessary, no matter how inconvenient or unpopular they might be, it stands to reason that the public health and residents' grievances must play into management decisions. Consequently, the Legislature should consider alternatives to the emergency manager option that allow for more community input and better-motivated decision-making. The most appropriate solution may be to replace the emergency manager with a three-person panel that embodies the right balance between operational experience and fiscal know-how on one-hand, and accessibility and accountability to the citizenry on the other. This Financial Management Team would consist of a financial expert, a local government operations expert, and an ombudsman to local officials and residents. Trifurcating management authority in this way allows individual biases to be countered by other qualified opinions and knowledge, which provides better outcomes for the local government and its residents.

*Proposal VI-2\*: The Legislature should prohibit an emergency manager (or the equivalent) from changing a public drinking water source without the approval of experts and a majority of the electors of the locality.*

The decision to switch Flint's water source to the Flint River was made while emergency manager Ed Kurtz was overseeing the city's government. Given the complexity and implications of a decision to switch a city's water source, the emergency manager should not have the sole authority to make such a significant decision. While one solution is to require prior approval by state health and environmental departments, as well as more expert oversight, the most appropriate solution is to empower local residents to make the final decision.

Section 12(4) of PA 436 already requires approval by a majority of the electors of a city or village before an emergency manager can sell or transfer a public utility furnishing light, heat, or power. The Legislature should add a similar provision for decisions to move to a different water source that requires approval of a majority of local voters. The provision should also require the emergency manager (or the Financial Management Team, if adopted; see Proposal VI-1 above) to consult with state and local health departments, as well as the ODWMA, before proposing a switch to voters. This provides assurance that public health considerations are adequately taken into account, while also providing residents the means to self-determination with respect to their drinking water supply.

## PROPOSALS AND RECOMMENDATIONS (CONTINUED)

**Proposal VI-3\*:** *The Legislature should make emergency managers liable for certain harms they cause and require them to post a bond for the faithful performance of their duties, which shall be forfeited in cases of gross negligence or willful and wanton misconduct.*

Emergency managers are generally immune from civil liability under current law. Additionally, any costs from lawsuits against the manager are typically charged to the local government they are managing or may even be borne by the State. While there are arguments to make in favor of the status quo, few would disagree with a move towards more accountability.

To address this issue, Representative Lucido has introduced HBs 5209-10. These bills remove civil immunity for emergency managers so that they can be held responsible for harmful misconduct. The bills require an emergency manager to post a \$5 million bond that acts as an insurance policy when a decision of the emergency manager leads to financial damage or liability for the locality. The bond would only be forfeited in the case of gross negligence, or willful and wanton misconduct. Other related bills addressing the emergency manager liability issue include SB 1059 (Ananich) which eliminates governmental immunity for emergency managers and SB 1057 which not only provides emergency managers would not be protected by governmental immunity but also provides the State, rather than the local government, would pay for ensuing litigation costs.

This legislation provides a great starting point for reform that deserves careful consideration by the Legislature. In evaluating the bills, the Legislature should consider both the benefits of a policy that holds an emergency manager financially accountable and any unintended consequences such could have on a manager's ability to effectively carry out his or her duties.

**Proposal VI-4\*:** *The Legislature should require emergency managers to utilize a website for soliciting and maintaining public comments on issues the manager may address.*

Citizens have a right to petition their government for redress of grievances and this right must be preserved even when the government is under emergency management. Unfortunately, PA 436 leaves little to no formal opportunity for the public to comment directly to the emergency manager, particularly before he or she makes key policy decisions. While an elected city council and mayor remain in place during emergency management to act as a conduit of public opinion, the ultimate decision making authority generally lies with the emergency manager. If the elected officials do not have a good relationship with the manager, the voice of the public may never reach the person who is actually making the decisions that affect them.

The Committee record reflects that this lack of communication with residents was a problem during the Flint crisis. It was an unacceptable situation and the Legislature should take action to prevent it from ever happening again. More specifically, the Legislature should consider amending PA 436 to require emergency managers (or their equivalent) to host a publicly accessible website for the specific purpose of soliciting, maintaining, and responding to public comments on key policy decisions that the manager intends to make. Regulatory agencies, such as the Michigan Department of Education, have used such websites to inform their decision-making with much success. The Legislature should require use of the same in the emergency management context to ensure that democracy is preserved, even in a financial emergency.

## PROPOSALS AND RECOMMENDATIONS (CONTINUED)

*Proposal VI-5\*: The Legislature should expressly prohibit cost from being the primary factor in any decision made by an emergency manager that would directly affect public health and safety.*

The predecessor to today's emergency manager law focused narrowly on a local government's financial problems. Under PA 436, however, an emergency manager has far greater authority and is essentially the sole decision-maker regarding a local government's operation. He or she can make broad changes to contracts and operating procedures, as well as to utilities and infrastructure, as the Flint crisis forcefully demonstrates.

To be clear, fiscal implications must be a key consideration in decisions made by a city under emergency management. Mismanagement of financial resources is, after all, the problem that PA 436 seeks to address. But while this principle is easy to apply to city contracts, for example, a more diverse perspective is needed when deciding issues that directly and materially affect public health and safety, such as whether to switch to a different drinking water source. The Legislature should thus consider prohibiting an emergency manager (or the equivalent) from looking at cost as the primary factor in a decision that evidence shows will directly and materially affect public health and safety. This would serve as a statutory reminder that an effective government means more than just the financial bottom line.



## CONCLUSION

The Flint water crisis resoundingly underscored the threat of harmful contaminants in drinking water. Municipal water systems are not infallible. Regulatory standards have proven to be flawed, as has the judgment of those charged with enforcing them. Federal, state, and local workers failed to look past technicalities in order to protect and maintain the public health in Flint. In sum, government has failed the people of Flint and, by extension, all Michiganders.

The Legislature has called for solutions and a path forward. Members of the Joint Select Committee on the Flint Water Public Health Emergency brought different backgrounds, experiences, and expertise together to satisfy the duties imposed by Senate Concurrent Resolution 24. That diversity of perspective is reflected in this report. Though not all members agree with each of the aforementioned proposals, all do agree that Michigan residents deserve legislative solutions to address Flint's public health emergency and ensure that such a crisis never happens again.



Of course, some proposals, such as making the Lead Copper Rule more protective than its federal counterpart, will require further development and extensive public vetting. Other recommendations, however, are ready for immediate action in the coming months. This Committee urges the Legislature to act accordingly on its guidance as soon as possible.

Ultimately, the path forward will not be convenient, nor will it be without contention, but it will be illuminated. Members of this Committee will work tirelessly with our fellow members of the Legislature to that end. It is my sincere hope and belief that we can not only provide meaningful and lasting relief to Flint residents, but also position the State as a national leader for safe drinking water.

Respectfully Submitted,

A handwritten signature in blue ink that reads "Jim Stamas". The signature is fluid and cursive, with a long horizontal stroke at the end.

Senator Jim Stamas, Committee Chairman



# FLINT WATER CRISIS

---

WATER CRISIS