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Committee on Energy and Commerce

Subcommittee on Environment and the Economy and

Subcommittee on Health

Flint Water Crisis: Impacts and Lessons Learned

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Thank you for the opportunity to appear before the House Committee on Energy and Commerce.

I am Keith Creagh, and on January 4, 2016, I was appointed to be the Interim Director of the Michigan Department of Environmental Quality (MDEQ). When I testified before the House Committee on Oversight and Government Reform on February 3, 2016, my testimony described how all levels of government did not work well together to protect the people of Flint, resulting in a water emergency.

Since that time, government at all levels has begun working cooperatively to help the people of Flint. I look forward to discussing with this committee today the progress made to provide resources -- and results -- for the people of Flint, and the lessons learned along the way by MDEQ.

When I became Interim Director, one of my first objectives was to implement changes in the culture of the MDEQ. We refocused our primary mission to protecting the environment and public health. The MDEQ has never strayed from its focus on protecting the environment.

However, in reviewing the water source switch from the Detroit Water and Sewerage Department (DWSD) to the Flint River, Office of Drinking Water and Municipal Assistance took a technical approach to compliance with the federal Lead and Copper Rule (LCR) without

adequately addressing public concerns. **One of the first lessons learned is that infrastructure changes are complex, especially in aging systems, and regulatory agencies need to engage with the experts and the public in a more meaningful way.**

Since January, much of the progress has been a result of the collaboration through the Flint Water Interagency Coordinating Committee (FWICC). The FWICC was established through an Executive Order issued by Governor Snyder and is comprised of city, county, and state officials, private entities, and outside experts such as Dr. Marc Edwards and Dr. Mona Hanna-Attisha. Just last Friday, the FWICC heard presentations on the current status of the Flint water system. Experts have advised that the drinking water system is recovering but unstable, Flint residents can safely drink filtered water and a systematic refreshing/ flushing is needed. The data indicates that the water quality is improving and the protective coating on the pipes is being restored. The announcement was based upon experts reviewing data from multiples sources, including from MDEQ, Environmental Protection Agency (EPA) and Virginia Tech University. This was another important step in addressing the emergency.

The FWICC meets weekly to publicly discuss and share information, coordinate monitoring and sampling and assure alignment of efforts to ensure safe drinking water to the citizens of Flint. The overall objective of the FWICC is to connect all of the resources available to assist the people of Flint and mitigate the impact of lead exposure to the community. Subcommittees are meeting to make recommendations on infrastructure and water quality needs, improvements for the LCR, community outreach, and nutritional and health needs. The information sharing that has occurred as a result of the FWICC has demonstrated the **second lesson - in order to rebuild trust in government, government at all levels needs to collaboratively communicate amongst its partners to assure effective discussions with experts and the citizenry.** The *Safe*

Drinking Water Act Improved Compliance Awareness Act, passed in February by the House, is a good first step.

The MDEQ has established a sentinel water testing program, through which over 600 residences are sampling their water every two weeks. The sampling results will help guide decision makers. The results from the past four rounds of sampling show that over 92% of the households have results at or below 15 parts per billion (ppb) of lead. MDEQ has created a comprehensive outreach protocol for both the sentinel program as well as all residences with high lead or copper results, in which MDEQ sends a team consisting of a MDEQ inspector, Department of Health and Human Services health professional, trained local community member and a local plumber to the home to discuss the results, deliver new filters, and inspect the home's plumbing system to determine the cause of the high results.

Additional tangible and pragmatic results include: the State of Michigan has appropriated over \$68 million to address the water issues in Flint, with another \$165 million pending in the Michigan Legislature for fiscal years 2016 and 2017. The appropriated funds are paying for, among other items, the following activities:

- Water bill relief to Flint residences. \$30 million has been appropriated for the City of Flint to credit residents for water used for drinking, cooking and bathing (65% of the total water bill) from April 2014 through April 2016, to provide relief to the residents of Flint. The money will be returned to residents as a credit from the City on their bills in the near future.
- Reconnection to the Great Lakes Water Authority (formerly DWSD) to supply finished treated drinking water through the end of the year. Since October 2015, the State of

Michigan has spent \$6 million to cover the cost of water supplied by the Great Lakes Water Authority (the entity that was recently formed to provide wholesale water from the City of Detroit's system to non-Detroit communities) through June 2016. Additional funding of \$1.3 million per month is proposed through December 2016.

- Follow up care and rehabilitation services for those exposed to high lead levels. \$18 million has been set aside to provide long-term follow up care to children exposed to high lead levels.

- Water sampling and testing, residential plumbing assessments, reliability study and pilot service line replacement program. \$7 million has been appropriated to evaluate water samples, conduct plumbing assessments and work with an outside engineering firm to produce a reliability study of the Flint water system and remove more than 30 lead service lines as a proof of concept. The reliability study will provide the basis for prioritizing future infrastructure investments for the City.

- Unsafe pipe replacement. The State of Michigan has provided \$2 million to the City of Flint for Mayor Karen Weaver's FAST Start Program to remove lead service lines, with an additional \$25 million in a pending supplemental appropriation.

Moving forward, the MDEQ is committed to supporting the City of Flint's efforts to identify and prioritize replacement of unsafe service lines and other infrastructure to ensure Flint's water system is suitable for drinking and everyday use.

The third lesson from the Flint water emergency is simply replacing the lead pipes alone will not solve the problem. Galvanized steel pipes can absorb lead and impact high lead levels.

Therefore, the identification of the makeup of all service lines is critical to developing a comprehensive strategy for replacement. Additionally, many of the high lead levels in schools and residences come from internal fixtures that either have lead components, lead solder or have lead particles trapped in faucet aerators. A comprehensive lead education campaign must continue past the immediate emergency. And vitally important, a long-term strategy needs to be implemented that upgrades and maintains an appropriately sized water infrastructure.

The fourth lesson is States should treat the federal LCR as the floor, not the ceiling.

Michigan is proposing to establish a comprehensive Michigan LCR to ensure necessary public health protections that exceed the existing federal LCR. When it comes to protecting public health, states cannot wait for EPA's issuance of an updated LCR. States must be willing to go above and beyond what the federal government standards are whenever necessary to ensure public health is protected.

The State of Michigan also is working collaboratively with EPA and outside entities to develop state guidelines for lead service line replacement. These guidelines will prohibit partial line replacement and create a methodology for establishing replacement priority.

We continue to work with the City of Flint regarding its future water needs. We will work closely to ensure that Flint has the technical expertise in place before switching to an alternative water source. In Michigan, as we work to address drinking water and aging infrastructure concerns, the MDEQ will take a collaborative approach among all levels of government, as well as with outside experts and citizens. We hope that the effective implementation of this approach and the lessons learned will prevent the reoccurrence of such emergencies in Michigan and other parts of the country.