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ONE HUNDRED FOURTEENTH CONGRESS
Congress of the United States
House of Representatives
COMMITTEE ON ENERGY AND COMMERCE
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MEMORANDUM

April 11, 2016

To: Subcommittees on Environment & the Economy and on Health Democratic Members and Staff

Fr: Committee on Energy and Commerce Democratic Staff

Re: Hearing on "Flint Water Crisis: Impacts and Lessons Learned"

On **Wednesday, April 13, 2016 at 10:00 a.m. in Room 2123 of the Rayburn House Office Building**, the Subcommittees on Environment and the Economy and on Health will hold a hearing entitled "Flint Water Crisis: Impacts and Lessons Learned", which will cover the environmental and health impacts of the water crisis in Flint, Michigan.

I. BACKGROUND

A. The Safe Drinking Water Act

The Safe Drinking Water Act (SDWA), originally passed in 1974, authorizes the Environmental Protection Agency (EPA) to regulate the nation's public water supply to protect public health against naturally-occurring and man-made contaminants.[1] Implementation of the Safe Drinking Water Act is largely delegated to the states; however, individual states may claim primary enforcement authority, known as primacy, over federal drinking water standards by demonstrating to EPA that state requirements in place are at least as stringent as the federal requirements.[2] Michigan has primacy for drinking water regulation under the Michigan Safe Drinking Water Act.

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[1] U.S. Environmental Protection Agency (EPA), *Understanding the Safe Drinking Water Act* (June 2004) (online at www.epa.gov/sites/production/files/2015-04/documents/epa816f04030.pdf).

[2] Safe Drinking Water Act (SDWA) §1413, 42 U.S.C. 300g-2.

1. Standard Setting for Lead and Other Drinking Water Contaminants

Under SDWA, EPA has adopted national primary drinking water standards for microorganisms, disinfectants, disinfection byproducts, chemical contaminants, and radionuclides.[3] For most contaminants, EPA sets Maximum Contaminant Level Goals (MCLGs) and Maximum Contaminant Levels (MCLs). MCLGs are health protective and include a margin of safety, but they are not enforceable. MCLs, on the other hand, are enforceable standards. MCLs are set based on the best available treatment technology and cost considerations, and, therefore, may differ from MCLGs.[4]

Lead and copper are treated somewhat differently than other contaminants in that they are regulated through a "treatment technique" rather than a numeric MCL.[5] This approach was adopted because lead and copper enter drinking water as contaminants primarily through corrosion of water distribution systems, rather than through source water. [6] Under the Lead and Copper Rule (LCR), water systems are required to monitor water at the customer tap and to take action if 10 percent or more of water samples exceed action levels. For lead, the MCLG is zero, because there is no safe level of lead, and the action level is .015 mg/L or 15 parts per billion (ppb).

When action levels are exceeded, water systems are required to take actions to limit exposure, which may include corrosion controls, public education, source water monitoring and treatment, and removal of lead service lines.[7] Exceedances themselves do not amount to violations of the LCR; a violation occurs when the water system fails to take actions required by the LCR.[8]

EPA is currently considering revisions to the LCR—the first major revisions in 20 years— including revisions to lead sampling protocols, corrosion control treatment, and lead line replacement. This revision process has been ongoing for several years – EPA held a public meeting on potential revisions in November 2010, and another on potential environmental justice concerns related to revisions in March 2011. The agency also consulted the Science Advisory

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[3] U.S. EPA, *Table of Regulated Drinking Water Contaminants* (Feb. 2016) (online at https://www.epa.gov/your-drinking-water/table-regulated-drinking-water-contaminants).

[4] SDWA §1412, 42 U.S.C. 300g-1.

[5] U.S. EPA, *Lead and Copper Rule: Rule Summary* (Mar. 30, 2016) (online at www.epa.gov/dwreginfo/lead-and-copper-rule).

[6] *Id.*

[7] U.S. EPA, *Lead and Copper Rule: Long-Term Revisions* (Nov. 23, 2015) (online at www.epa.gov/dwstandardsregulations/lead-and-copper-rule-long-term-revisions).

[8] U.S. EPA, *Drinking Water* (Nov. 23, 2015) (online at www.epa.gov/dwstandardsregulations/lead-and-copper-rule-long-term-revisions).

Board on the effectiveness of lead service line replacements in 2011. EPA also convened a working group of the National Drinking Water Advisory Council on revisions to the Lead and Copper Rule in 2014. [9]

2. Aging Infrastructure and Lead

The nation's water systems serve over 300 million people. According to EPA's most recent needs survey, these systems are facing infrastructure bills of up to $385 billion over the next 20 years as existing infrastructure ages.[10] Lead is present in much of our existing water infrastructure: in service lines, solder, and fixtures. As that infrastructure ages and corrodes, more lead can leach into drinking water.

The Drinking Water State Revolving Fund (SRF) was created by the SDWA Amendments of 1996 in order to finance projects necessary for protecting public health and compliance with drinking water standards.[11] The Drinking Water SRF provides loans and grants to states to use for water infrastructure, source water protection, and management of public water systems. Funds from the SRF are allotted to the states based on a needs survey, with no state receiving less than one percent of the fund.[12] Each state then administers its fund according to an approved intended use plan, providing loans to public water systems at below-market interest rates. The priorities for these funds are addressing the most serious risks to human health, ensuring compliance with SDWA requirements, and assisting systems most in need on a per-household basis. States can also provide additional assistance through the SRF for disadvantaged communities.

The SRF has not been reauthorized since it expired in 2003, despite various attempts to do so.[13]

SDWA also restricts the use of pipes and plumbing fixtures containing lead. Since 1986, SDWA has prohibited the installations and repairs of plumbing that provides water for human

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[9] U.S. EPA, *Lead and Copper Rule: Long-Term Revisions* (Nov. 23, 2015) (online at www.epa.gov/dwstandardsregulations/lead-and-copper-rule-long-term-revisions).

[10] U.S. EPA, *Background on Drinking Water Standards in the Safe Drinking Water Act (SDWA)* (Dec. 2015) (online at www.epa.gov/dwstandardsregulations/background-drinking-water-standards-safe-drinking-water-act-sdwa); U.S. EPA, *Drinking Water Infrastructure Needs Survey and Assessment: Fifth Report to Congress* (Apr. 2013) (online at www.epa.gov/sites/production/files/2015-07/documents/epa816r13006.pdf).

[11] Safe Drinking Water Act Amendments of 1996, Pub. L. No. 104-182 (1996).

[12] SDWA §1452, 42 U.S.C. 300j-12.

[13] H.R. 4653, the Assistance, Quality, and Affordability (AQUA) Act of 2016 was introduced by Rep. Paul D. Tonko on Feb. 29, 2016. Previous versions of this legislation were introduced in the 111th and 113th Congress by Rep. Henry A. Waxman and Rep. Tonko, respectively.

consumption not meeting the statutory definition of "lead free."[14] The 1996 amendments additionally prohibited the introduction into commerce of any pipe or plumbing fitting or fixture that was not "lead free". In 2010, Congress updated the definition of "lead free" under SDWA, dropping it from eight percent to less than one-quarter percent lead.[15] However, these restrictions do not require the replacement of existing pipes and fixtures; they merely ensure that when fixtures are replaced, the replacement parts are "lead free".

B. Health Effects of Lead Exposure

Lead exposure can cause serious damage to the heart, kidneys, reproductive system, and brain.[16] According to the World Health Organization (WHO), at its most severe exposure levels, lead attacks the brain and central nervous system to cause coma, convulsions, and even death.[17] Lead exposure is particularly harmful to the developing brains and nervous systems of young children—even low levels of exposure are associated with irreversible neurologic damage and behavioral disorders.[18] In 2012, the Centers for Disease Control and Prevention (CDC) lowered the "reference level" for lead poisoning from 10 micrograms per deciliter (μg/dL) to 5 μg/dL, in recognition of a growing scientific consensus that no amount of lead in the blood is safe. The CDC recommends follow-up and interventions to reduce lead exposure for children with blood lead levels at 5 μg/dL or more.[19]

The most prominent risk as a result of lead exposure is a decrease in intelligence.[20] Researchers estimate that even a small increase in blood lead level (BLL) in a child from 1 μg/dL to 4 μg/dL is associated with a mean decrease in IQ of 3.7. Accordingly, this leads to worse performance in school testing and reduced probability of graduating from high school.

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[14] SDWA §1417, 42 U.S.C. 300g-6.

[15] P.L. 111-380.

[16] U.S. Centers for Disease Control and Prevention (CDC), *Very High Blood Levels Among Adults—United States, 2002-2011*, Morbidity and Mortality Weekly Report (Nov. 29, 2013).

[17] World Health Organization (WHO), *Lead Poisoning and Health* (online at www.who.int/mediacentre/factsheets/fs379/en/).

[18] U.S. CDC, *Educational Interventions for Children Affected by Lead* (Apr. 2015) (online at www.cdc.gov/nceh/lead/publications/Educational_Interventions_Children_Affected_by_Lead.pdf).

[19] U.S. CDC, *Fact Sheet: Blood Lead Levels in Children* (online at www.cdc.gov/nceh/lead/acclpp/lead_levels_in_children_fact_sheet.pdf).

[20] Norm Healey et al., *Toxicological review and recommended toxicological reference values for lead exposure in Canada*, Health Canada (Mar. 2010) (online at www.paho.org/hq/index.php?option=com_docman&task=doc_download&gid=21069&Itemid=270&lang=en).

In addition to intellectual impairment, lead exposure is also associated with behavioral disturbances. Specifically, lead exposure has been linked to higher risk of developing attention-deficit/hyperactivity disorder (ADHD).[21] Behavioral disorders and other changes associated with lead exposure have been shown to have real-world consequences for those who are exposed. Children as young as fourth grade are at twice the risk of school suspension for behavioral issues if exposed to lead.[22] Even more concerning, evidence shows that these behavioral disturbances persist throughout the lifespan, with research demonstrating a link between pediatric lead exposure and future risk of violent crime.[23]

The costs of childhood lead poisoning are significant. It is estimated that in 2008, lead exposure cost the United States approximately $51 billion.[24] These costs include both direct medical costs, as well as lost economic productivity due to the cognitive impairment resulting from lead toxicity.

The gravity of the situation in Flint, Michigan has brought to light equally troubling circumstances across the United States. Congress banned lead water pipes 30 years ago, but between 3.3 and 10 million older pipes remain in use throughout the country.[25] In the last 15 years, a number of cities – including Washington, D.C.; Durham and Greenville, North Carolina; Columbia, South Carolina; and Jackson, Mississippi – have reported unsafe levels of lead in their drinking water.[26] In addition to lead in the water supply, some four million children in the United States live in homes that have lead-based paint that can result in lead poisoning. Low-income and minority children are disproportionately affected by these conditions.[27]

C. Medical Recommendations for Lead Exposure

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[21] Joel T. Nigg et al., *Confirmation and extension of association of blood lead with attention-deficit/hyperactivity disorder (ADHD) and ADHD symptom domains at population-typical exposure levels,* Journal of Child Psychology and Psychiatry and Allied Disciplines (Jan. 2010).

[22] Michael S. Amato, et al., *Early lead exposure (<3 years old) prospectively predicts fourth grade school suspension in Milwaukee, Wisconsin (USA),* Environmental Research (Oct. 2013).

[23] Howard W. Mielke et al., *The urban rise and fall of air lead (Pb) and the latent surge and retreat of societal violence,* Environment International (Aug. 2012).

[24] Leonardo Trasande et al., *Reducing the staggering costs of environmental disease in children, estimated at $76.6 billion in 2008,* Health Affairs (2011).

[25] *Unsafe Lead levels in Tap Water Not Limited to Flint*, New York Times (Feb. 8, 2016) (online at www.nytimes.com/2016/02/09/us/regulatory-gaps-leave-unsafe-lead-levels-in-water-nationwide.html?_r=0).

[26] *Id.*

[27] U.S. CDC, *Fiscal Year 2016 Justification of Estimates for Appropriation Committees* (online at www.cdc.gov/budget/documents/fy2016/fy-2016-cdc-congressional-justification.pdf).

According to the CDC, the most important step to address lead poisoning is to prevent exposure in the first place.[28] In the vast majority of cases, once the child is exposed, parents should change the child's environment, remove the source of exposure, and closely monitor blood lead levels. Chelation medications that remove lead from the blood are only recommended in rare cases, where a child has a test result of greater than 45 μg/dL. Some experts also recommend interventions to increase a child's chances for overall health and intellectual wellbeing, such as early literacy programs, access to school health services, diet and nutritional support, and other wraparound services.[29]

D. Childhood Lead Poisoning Prevention Program

The CDC's Childhood Lead Poisoning Prevention Program currently provides funding to 29 states, the District of Columbia, and five cities for lead poisoning prevention and surveillance activities.[30] The program is designed to assist public health authorities in building surveillance capacity to identify high risk areas and implement appropriate, population-based interventions wherever needs are identified.[31]

The program has experienced decreased funding in recent years, from a level of nearly $30 million in FY2011 down to $15 million in FY2015.[32]

E. Medicaid and CHIP Lead Screening and Prevention Services

The Medicaid and Children's Health Insurance Program (CHIP) combined cover more than one in every three children in the United States.[33] All children enrolled in Medicaid are entitled to the comprehensive set of health care services known as Early, Periodic Screening, Diagnosis and Treatment (EPSDT). CHIP also ensures a comprehensive set of benefits for children, but states have flexibility to design the benefit package.

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[28] CDC, *Blood lead levels in children* (online at www.cdc.gov/nceh/lead/acclpp/lead_levels_in_children_fact_sheet.pdf).

[29] Bridget M. Kuehn, *Pediatrician sees long road ahead for Flint after lead poisoning crisis,* Journal of the American Medical Association (Mar. 8, 2016).

[30] CDC, *PPHF 2014: Lead Poisoning Prevention-Childhood Lead Poisoning Prevention—Financed Solely By 2015 Prevention and Public Health Funds* (online at www.cdc.gov/nceh/lead/funding.htm).

[31] *Id.*

[32] Email from Congressional Research Service to Energy and Commerce Democratic Committee Staff (Feb. 3, 2016).

[33] Kaiser Family Foundation, *The Impact of the Children's Health Insurance Program (CHIP): What Does the Research Tell Us?* (July 17, 2014) (online at kff.org/medicaid/issue-brief/the-impact-of-the-childrens-health-insurance-program-chip-what-does-the-research-tell-us/).

A majority of states have elected to provide Medicaid to children with family incomes above the minimum of 100 percent of the federal poverty level (FPL), and all states have expanded coverage to children with higher incomes through the Children's Health Insurance Program (CHIP). In general, children in families with incomes up to $44,700/year (for a family of four in 2011) are likely to be eligible for Medicaid or CHIP coverage. In many states, families with higher incomes can still qualify for coverage for their children, with some states covering children up to 400 percent of the FPL.[34]

1. EPSDT Services Available to Eligible Children and Adolescents

The EPSDT benefit provides comprehensive and preventive health care services for children under age 21 who are enrolled in Medicaid. EPSDT is key to ensuring that children and adolescents receive appropriate preventive, dental, mental health, and developmental and specialty services. States are universally required to provide comprehensive screening, vision, dental, hearing and diagnostic tests for children, and to furnish all Medicaid coverable, appropriate and medically necessary services needed to correct and ameliorate health conditions, based on certain federal guidelines.[35]

Lead screening is included in the EPSDT benefit. The CDC encourages targeted screening in states that have sufficient data to demonstrate that universal screening is not the most effective method of identifying exposure to lead. On March 30, 2012, the Medicaid program revised its policy with respect to screening Medicaid eligible children for lead poisoning to align better with the recommendations of the CDC. Prior to the change, state Medicaid programs required universal lead screening for children ages one and two, as part of the EPSDT benefit. The changed policy in Medicaid now allows states to opt out of universal screening and move towards a more targeted approach through a waiver. So far, only Arizona has received a waiver to opt-out of universal screening.

II. THE FLINT WATER CRISIS

A. Overview

In April 2014, the City of Flint changed its water supplier from the City of Detroit's Water and Sewerage Department (DWSD) to the Flint River, as a temporary, cost-saving measure until Flint built a Karegnondi Water Authority (KWA) pipeline to Lake Huron.[36] Shortly thereafter, residents began to complain of the water's smell, taste, and appearance.

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[34] U.S. Centers for Medicare and Medicaid Services (CMS), *Medicaid: By Population: Children* (online at www.medicaid.gov/medicaid-chip-program-information/by-population/children/children.html).

[35] More information regarding the EPSDT benefit in Medicaid and state-designed CHIP benefit packages can be found at www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Benefits/Early-and-Periodic-Screening-Diagnostic-and-Treatment.html.

[36] "*I don't even let my dogs drink this water"*, Associated Press (Mar. 4, 2015) (online at www.cbsnews.com/news/flint-michigan-break-away-detroit-water-riles-residents/).

Additionally, many residents raised health concerns, including the development of rashes and other health problems. The higher corrosivity of the new source water and the high levels of chlorine added to disinfect the water led to removal of the pipe's protective passivation layer and eventual leaching of lead from the service lines.[37] However, state officials reported that water testing in Flint was compliant with the federal water safety regulations and was not a source of concern. Later, it was shown that Flint, which was then under the control of a state-appointed emergency manager, failed to implement a corrosion control program when switching to the Flint River as a cost-saving measure.

Documents also show that the Michigan Department of Environmental Quality (MDEQ) advised residents to "pre-flush" their water before taking water samples, thereby avoiding testing water that had been sitting in the pipe and would have had higher concentrations of lead.[38] This practice led to artificially low lead testing results. Independent researchers would later find elevated lead levels in the water by using the "first draw" method, which avoids the "pre-flush."[39]

In the fall of 2014, the city issued a boil-water advisory after detecting coliform bacteria, including E. coli, in the tap water.[40] During that same timeframe, a General Motors plant stopped using Flint water due to claims that the water was corroding car parts.[41]

In July 2015, the Michigan Department of Health and Human Services (MDHHS) undertook an assessment to determine if children in Flint were showing elevated blood lead levels by examining data from May 2011 to April 2015. The internal report found that lead poisoning rates "were higher than usual for children under age 16 living in the City of Flint during the months of July, August and September, 2014."[42] The report noted that "even compared to the previous three years, the proportion of first-time EBLL (elevated blood-lead

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[37] *How Lead Ended Up in Flint's Tap Water,* C & E News (Feb. 11, 2016) (online at cen.acs.org/articles/94/i7/Lead-Ended-Flints-Tap-Water.html).

[38] *Documents show Flint filed false reports and testing for lead in water*, Michigan Live (Nov. 12, 2015) (online at www.mlive.com/news/flint/index.ssf/2015/11/documents_show_city_filed_fals.html).

[39] *Lead testing results for water sampled by residents*, Flint Water Study (online at flintwaterstudy.org/information-for-flint-residents/results-for-citizen-testing-for-lead-300-kits/).

[40] For more information about coliform bacteria and its regulation under the Safe Drinking Water Act, see www.epa.gov/dwreginfo/revised-total-coliform-rule-and-total-coliform-rule.

[41] *General Motors Shutting off Flint River Water at Engine Plant over Corrosion Worries*, Michigan Live (Oct. 13, 2014) (online at www.mlive.com/news/flint/index.ssf/2014/10/general_motors_wont_use_flint.html).

[42] *Michigan Ignored 'Conclusive Evidence' Of Flint Lead Poisoning, Researcher Says*, Huffington Post (Dec. 21, 2015) (online at www.huffingtonpost.com/entry/flint-michigan-water-lead_us_56784055e4b0b958f657595c).

levels) is highest during summer 2014."[43] In order to conduct this assessment, MDHSS used data provided through the Childhood Lead Poisoning Prevention Program.[44] It is unclear whether any actions were taken to address the growing crisis at that point.

In August 2015, a team of researchers from Virginia Tech began independent testing of household water supplies in Flint.[45] The initial tests found that over 50 percent of samples had water supplies contaminated with lead. To date, researchers have examined nearly 300 homes in Flint and have found the 90th percentile of tap water samples to be 25 ppb, nearly double the action level. Several samples exceeded 100 ppb.[46]

Additionally, in September 2015, Dr. Mona Hanna-Attisha, a pediatrician at Michigan State University, contacted the MDHSS to report her findings that children's blood lead levels in Flint more than doubled in the year after the water supply switch.[47] Initially, state officials suggested that Dr. Hanna-Attisha's data didn't match their own. An email from a MDHHS spokeswoman to other state officials noted that the state had looked at "five comprehensive years (of data) and saw no increase outside the normal seasonal increases."[48]

State epidemiologists then reviewed Dr. Hanna-Attisha's data and reached the same conclusions as she did: the switch to Flint River water was causing elevated BLLs in Flint's

[43] *State's top doctor admits 'missed opportunity' for earlier Flint response*, Detroit Free Press (Jan. 23, 2016) (online at www.freep.com/story/news/local/michigan/flint-water-crisis/2016/01/23/health-department-flint-water-lead/79174598/).

[44] Michigan Department of Health and Human Services, *Elevated Blood Lead Levels Among Children <16 Years of Age: City of Flint, May 2011-April 2015* (July 27, 2015). This report was produced in response to FOIA request #2015-557 by Dr. Marc Edwards, Virginia Tech.

[45] *Analysis of water samples from 48 Flint homes to date for lead are worrisome*, Flint Water Study (Aug. 27, 2015) (online at flintwaterstudy.org/2015/08/analysis-of-water-samples-from-48-flint-homes-to-date-for-lead-are-worrisome/).

[46] *Lead testing results for water sampled by residents*, Flint Water Study (online at flintwaterstudy.org/information-for-flint-residents/results-for-citizen-testing-for-lead-300-kits/). The EPA's designated action level is based on the 90th percentile of tap water samples and is set at 15 ppb. Environmental Protection Agency, *Lead and Copper Rule: A Quick Reference Guide,* (June 2008) (online at nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=60001N8P.txt).

[47] Mona Hanna-Attisha, *Elevated blood lead levels in children associated with the Flint drinking water crisis: a spatial analysis of risk and public health response,* American Journal of Public Health (Feb. 2016).

[48] *Id.*

children.[49] On October 16, 2015, Michigan officials announced plans to switch Flint's water system back to its original Detroit water source.[50]

In December 2015, Flint implemented corrosion control measures to reduce leaching of lead from the pipes. Additionally, the state distributed water filters and bottled water, and provided access to additional water testing sampling.

Between June 2014 and November 2015, Flint also experienced an outbreak of Legionnaire's disease. In that timeframe, 88 cases were reported in Genesee County, where Flint is located.[51] There are typically only six to 13 cases annually in Genesee County.[52] Legionnaire's disease typically causes pneumonia, gastrointestinal symptoms, and occasionally neurologic issues such as headache or confusion. The bacteria that cause the disease are spread in water systems such as hot tubs, cooling towers, or plumbing systems.[53] CDC is unable to make a definitive statement regarding the relationship between the Flint water switch and the Legionnaire's disease outbreak. The agency can currently only "point to certain associations, but not cause."[54]

As noted previously, many Flint residents began noticing new rashes and hair loss after the water switch.[55] The cause of these occurrences is less clear and a link to the water supply has not been established. In response to this issue, the MDHSS requested an Assessment of Chemical Exposure (ACE) from the U.S. Department of Health and Human Services (HHS).[56] This study began at the end of February and is ongoing.

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[49] *Who Poisoned Flint, Michigan?*, Rolling Stone (Jan. 22, 2016) (online at www.rollingstone.com/politics/news/who-poisoned-flint-michigan-20160122).

[50] *Flint reconnects to Detroit water, may take 3 weeks to clear all pipes*, MLive (Oct. 16, 2015) (online at www.mlive.com/news/flint/index.ssf/2015/10/flint_reconnecting_to_detroit.html).

[51] Michigan Department of Health and Human Services, *Legionellosis Outbreak-Genesee County* (Mar. 17, 2016) (online at www.michigan.gov/documents/mdhhs/5-15_to_10-15_Legionellosis_Full_Analysis_UPDATE_517319_7.pdf).

[52] Nelson, R, *Crisis in Flint: lead and Legionnaires' disease*, Lancet Infectious Disease (Mar. 2016).

[53] U.S. CDC, *Legionella* (*Legionnaire's Disease and Pontiac Fever)* (Jan. 15, 2016) (online at www.cdc.gov/legionella/index.html).

[54] Roxanne Nelson, *Crisis in Flint: lead and Legionnaires' disease*, Lancet Infectious Disease (Mar. 2016).

[55] *'It's all just poison now': Flint reels as families struggle through water crisis*, The Guardian (Jan. 24, 2016) (online at www.theguardian.com/us-news/2016/jan/24/flint-michigan-water-crisis-lead-poisoning-families-children).

[56] State of Michigan, *Michigan calls in federal ACE team to study rashes* (Feb. 22, 2016) (online at www.michigan.gov/flintwater/0,6092,7-345-75251_75303-377567--,00.html).

B. Governmental Response

1. State of Michigan

In March 2016, Michigan Governor Rick Snyder released his plan for addressing the Flint water crisis.[57] The plan included four prongs – health and human services, water supply and infrastructure, education, and jobs and economic development – with short, medium, and long-term goals in each area.[58] The plan recommended spending $232 million in state resources to continue support for Flint.

To date, the Governor has signed legislation to provide $28 million for the initial response, and the state legislature has committed approximately $67 million to addressing the issue.

Flint continues to work on the KWA pipeline to Lake Huron, which is projected to be completed in June or July of 2016.[59] The Flint Safe Drinking Water Task Force has been convened to provide technical assistance during the transition to the new drinking water source. The task force includes scientists and technical experts, as well as the Mayor of Flint and representatives from EPA and MDEQ.[60] To date, the task force has provided recommendations on lead service line replacement and testing for lead.

2. Federal Response

In January 2016, President Obama declared a State of Emergency in Michigan and allowed the Federal Emergency Management Agency (FEMA) to coordinate disaster relief efforts.[61] This initial response provided up to $5 million in water, water filters, test kits, and other additional items for a period of 90 days. Governor Snyder's original request for an

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[57] Office of Governor Rick Snyder, *Gov. Rick Snyder: State's action plans designed to ensure Flint's recovery and strong future* (Mar. 21, 2016) (online at www.michigan.gov/snyder/0,4668,7-277--379415--,00.html).

[58] *Id.*

[59] *Massive KWA Pipeline Project Moves Ahead during Flint Water Crisis*, Michigan Live (Mar. 31, 2016) (online at www.mlive.com/news/flint/index.ssf/2016/03/massive_kwa_pipeline_project_m.html).

[60] U.S. EPA, *Flint Safe Drinking Water Task Force* (Mar. 22, 2016) (online at www.epa.gov/flint/flint-safe-drinking-water-task-force).

[61] White House Office of the Press Secretary, *President Obama signs Michigan emergency declaration* (Jan. 16, 2016) (online at www.whitehouse.gov/the-press-office/2016/01/16/president-obama-signs-michigan-emergency-declaration).

additional $96 million in federal FEMA funding was not approved as this type of assistance is available only to mitigate natural disasters.[62]

In addition to the initial emergency declaration, HHS has begun coordinating a multi-agency response to the Flint crisis, bringing together HHS, EPA, FEMA, the Department of Housing and Urban Development, the Department of Education, the Department of Agriculture, and the Small Business Administration.[63] The multi-agency response is being led by Dr. Nicole Lurie, the Assistant Secretary of Preparedness and Response at HHS.

In March 2016, HHS approved Michigan's 1115 waiver request to expand Medicaid coverage to children up to age 21 and pregnant women served by the Flint water system from April 2014 up to a date specified by the Governor, and who have incomes up to 400 percent of the FPL.[64] This expanded coverage waiver means that these children and pregnant women will be eligible for all of the Michigan Medicaid program's applicable benefits, exempt from cost-sharing or premiums. Under the coverage waiver, comprehensive health and developmental services, including BLL monitoring and behavioral health care, will be provided. In addition, all such persons will have access to Targeted Case Management services, a hallmark of the Medicaid program, which, in this instance, will include assistance in gaining access to needed medical, social, educational, and other services. It is important to note that under the screening benefit for Medicaid children, the Medicaid program will also cover evaluation of potential sources of lead exposure in the home (when asked for/allowed by the family); however, such services do not include broader-scale lead abatement. Nonetheless, federal officials have indicated that they will work with Michigan, if requested, on alternative funding mechanisms to support such services.

In February, the House passed H.R. 4470, the Safe Drinking Water Act Improved Compliance Awareness Act, to provide greater transparency and increase education and outreach efforts to communities about their drinking water systems. The legislation, sponsored by Rep. Dan Kildee (D-MI), addresses a concern raised during the Flint water crisis about the significant delay in informing city residents about the dangerous levels of lead in their water.

III. WITNESSES

Panel One

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[62] *FEMA denies Snyder appeal for more aid,* The Detroit News (Mar. 16, 2016) (online at www.detroitnews.com/story/news/michigan/flint-water-crisis/2016/03/16/fema-denies-snyder-appeal-flint-aid/81858426/).

[63] U.S. Department of Health and Human Services, *Federal Support for state and local response operations* (Mar. 18, 2016) (online at www.phe.gov/emergency/events/Flint/Pages/USGresponse-18Mar16.aspx).

[64] U.S. Department of Health and Human Services, *HHS approves major Medicaid expansion for Flint* (Mar. 3, 2016) (online at www.hhs.gov/about/news/2016/03/02/hhs-approves-major-medicaid-expansion-flint.html).

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