

**BEFORE THE
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

Petition for Emergency Action under the Safe Drinking Water Act, 42 U.S.C. § 300i, to Abate
the Imminent and Substantial Endangerment to Flint, Michigan Residents from Lead
Contamination in Drinking Water

**Submitted on Behalf of Petitioners Coalition for Clean Water, Concerned Pastors for
Social Action, Water You Fighting For, Democracy Defense League Water Task Force,
Flint Water Study Team, Michigan Nurses Association, NAACP – Michigan State
Conference, Michigan Chapter of the National Conference of Black Lawyers, American
Civil Liberties Union of Michigan, and the Natural Resources Defense Council**

October 1, 2015

Notice of Petition

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The residents of Flint, Michigan have been and continue to be exposed to dangerous levels of lead in their drinking water. Monitoring results confirm that, in many instances, these levels are well above the threshold set by the U.S. Environmental Protection Agency (EPA) that triggers mandatory corrective action by public water systems. The City of Flint and the Michigan Department of Environmental Quality (MDEQ) have failed to address this public health crisis, despite their awareness of these monitoring results and data showing increasing blood lead levels in children residing in Flint.

The Coalition for Clean Water, Concerned Pastors for Social Action, Water You Fighting For, Democracy Defense League Water Task Force, Flint Water Study Team, Michigan Nurses Association, NAACP – Michigan State Conference, Michigan Chapter of the National Conference of Black Lawyers, American Civil Liberties Union of Michigan, and Natural Resources Defense Council (collectively, Petitioners) petition EPA to use its emergency powers under the Safe Drinking Water Act (SDWA or the Act), 42 U.S.C. § 300i, to take action to abate the imminent and substantial endangerment to human health caused by lead contamination in Flint’s drinking water. As Petitioners demonstrate below, this contamination meets the SDWA requirements for immediate action by EPA and requires a comprehensive federal response.

I. Background

Water-quality problems have plagued Flint’s water system since at least April 2014, when the City began using the Flint River as its water source after deciding not to continue purchasing water from Lake Huron through the Detroit Water and Sewerage Department, as it had done for nearly fifty years.¹ In the eighteen months since the switch to Flint River water, the City’s drinking water has been at times discolored, foul smelling, and “laden with sediments.”² Residents report that they have experienced hair loss, skin rashes, and vomiting after drinking the water.³ In the summer of 2014, the City was forced to issue several boil-water notices after tap water tested positive for total coliform bacteria, which

¹ See Dominic Adams, *Closing the valve on history: Flint cuts water flow from Detroit after nearly 50 years*, Michigan Live, Apr. 25, 2014, http://www.mlive.com/news/flint/index.ssf/2014/04/closing_the_valve_on_history_f.html (attached as Ex. 1); Letter from Darnell Earley, Emergency Manager, to Sue McCormick, Detroit Water & Sewer Dep’t (Mar. 7, 2014) (explaining that the City “has actively pursued using the Flint River as a temporary water source” instead of accepting Detroit’s offer to “provide[] Flint with the option of continuing to purchase water from DWSD”) (attached as Ex. 2).

² See Curt Guyette, *In Flint, Michigan, Overpriced Water is Causing People’s Skin to Erupt in Rashes and Hair to Fall Out*, The Nation, July 16, 2015, <http://www.thenation.com/article/in-flint-michigan-overpriced-water-is-causing-peoples-skin-to-erupt-and-hair-to-fall-out/> (attached as Ex. 3); Wenonah Hauter, *Flint’s Brown Water Blues*, Huffington Post, July 10, 2015, http://www.huffingtonpost.com/wenonah-hauter/flints-brown-water-blues_b_7765132.html (attached as Ex. 4).

³ Laura Gottesdiener, *Flint, Mich., Residents find state water control hard to swallow*, Al Jazeera America, Apr. 3, 2015, <http://america.aljazeera.com/articles/2015/4/3/flint-residents-find-state-water-control-hard-to-swallow.html> (attached as Ex. 5).

suggested a possible “pathway for pathogens and fecal contamination” to enter the water system.⁴

The City’s subsequent treatment of the water to kill disease-carrying pathogens resulted in elevated levels of total trihalomethanes (TTHM), a byproduct of disinfection.⁵ Drinking water with TTHM levels that exceed the federal limit can cause “liver, kidney, or central nervous system problems and increased risk of cancer.”⁶ In response to the City’s water problems, local hospitals, schools, and museums began using bottled water instead of tap water.⁷ Some grocery stores reduced the price of bottled water and “sponsored community giveaways of bottled water to low income residents.”⁸

Flint River water is also highly corrosive, causing dangerous amounts of lead to leach out of pipes and into the City’s water system.⁹ Recent sampling has shown that lead is present in Flint’s water system at levels well above 15 parts per billion (ppb), the “action level” for lead under the SDWA.¹⁰ These high lead levels put residents at risk of increased lead exposure, which can cause a broad array of serious, irreversible health effects, including cognitive impairment, decreased red blood cell survival, kidney damage, coronary heart disease, and impaired reproductive function.¹¹

⁴ Ron Fonger, *Flint issues boil water advisory for section of the city after positive test result for total coliform bacteria*, Michigan Live, Sept. 5, 2014, http://www.mlive.com/news/flint/index.ssf/2014/09/flint_issues_boil_water_adviso.html (attached as Ex. 6).

⁵ Robin Erb, *Who wants to drink Flint’s water?*, Detroit Free Press, Jan. 23, 2015, <http://www.freep.com/story/news/local/michigan/2015/01/22/water-woes-latest-hit-flint/22193291/> (attached as Ex. 7); Mich. Dep’t of Env’tl. Quality, Violation Notice—Maximum Contaminant Level for Total Trihalomethanes (Dec. 16, 2014) (attached as Ex. 8).

⁶ U.S. EPA, Basic Information about Disinfection Byproducts in Drinking Water, <http://water.epa.gov/drink/contaminants/basicinformation/disinfectionbyproducts.cfm> (last updated Dec. 13, 2013) (attached as Ex. 9); see 40 C.F.R. § 141.64(b).

⁷ Order Den. Mot. for Prelim. Inj. 1, *Coalition for Clean Water v. City of Flint*, No. 15-cv-12084 (E.D. Mich. June 23, 2015), ECF No. 6 (attached as Ex. 10).

⁸ *Id.*

⁹ Marc Edwards, *Flint River water 19X more corrosive than Detroit water for Lead Solder; Now What?*, Flint Water Study (Sept. 11, 2015), <http://flintwaterstudy.org/2015/09/test-update-flint-river-water-19x-more-corrosive-than-detroit-water-for-lead-solder-now-what/> (attached as Ex. 11); Marc Edwards, *Flint River water is very corrosive to lead, and causing lead contamination in homes*, Flint Water Study (Sept. 2, 2015), <http://flintwaterstudy.org/2015/09/flint-rivers-water-is-very-corrosive-to-lead-and-causing-lead-contamination-in-homes/> (attached as Ex. 12). The river water is so corrosive that in October 2014, a local GM engine plant decided to switch back to Lake Huron water to avoid damage to equipment at the plant from corrosion. Brianna Owczarzak, *GM says no to Flint water*, WNEM, Oct. 14, 2014, <http://www.wnem.com/story/26785625/gm-says-no-to-flint-water> (attached as Ex. 13).

¹⁰ 40 C.F.R. § 141.80(c)(1).

¹¹ See, e.g., U.S. EPA, Integrated Science Assessment for Lead tbl.ES-1 (June 2013) (attached as Ex. 14) (summarizing health effects of lead exposure); U.S. EPA, Basic

The City of Flint and the Michigan Department of Environmental Quality (MDEQ) have been aware of independent monitoring results showing exceedingly high lead levels in the City's drinking water for months.¹² Despite increasing public concern about the safety of the City's drinking water, neither the City nor MDEQ has taken the actions necessary to meaningfully address the problem. The City has not implemented *any* measures to treat the highly corrosive Flint River water to reduce the amount of lead leaching from service pipes.¹³ And MDEQ refuses to use its enforcement authority under the SDWA or state law to require Flint to employ corrosion control measures or provide alternative safe water supplies.¹⁴

When state and local authorities fail to adequately address a public health crisis, the SDWA empowers EPA to act. Section 1431 of the Act vests EPA with broad emergency authority to address endangerments to public health from contaminated drinking water. The EPA Administrator may use these emergency powers "upon receipt of information that a contaminant which is present in or is likely to enter a public water system . . . may present an imminent and substantial endangerment to the health of persons, and that appropriate State and local authorities have not acted to protect the health of such persons."¹⁵ Once the Administrator receives this information, she may "take such actions as [s]he may deem necessary in order to protect [public] health."¹⁶ These actions "may include (but shall not be limited to) . . . issuing such orders as may be necessary to protect the health of persons who are or may be users of such system (including travelers), including

Information About Lead in Drinking Water, <http://water.epa.gov/drink/contaminants/basicinformation/lead.cfm> (last updated June 26, 2015) (explaining that "[i]nfants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development," and that "[a]dults who drink this water over many years could develop kidney problems or high blood pressure") (attached as Ex. 15); *see also* National Ambient Air Quality Standards for Lead, 80 Fed. Reg. 278, 290 (Jan. 5, 2015).

¹² *See, e.g.*, Email from Jennifer Crooks, U.S. EPA, to Stephen Busch, MDEQ, and Mike Prysby, MDEQ (Feb. 26, 2015) (describing "[b]ig worries" for high lead test results at a Flint resident's home) (attached as Ex. 16).

¹³ The City's plan to implement corrosion control measures within thirty to sixty days is inadequate to address the ongoing endangerment. *See* City of Flint, City of Flint Issues Lead Advisory (Sept. 25, 2015), <https://www.cityofflint.com/2015/09/25/city-of-flint-issues-lead-advisory/> (attached as Ex. 17).

¹⁴ *See* Mich. Comp. Laws Ann. §§ 325.1015(1) ("When considered necessary for protection of the public health, the department shall notify a supplier of water of the need to make changes in operations, to provide treatment, [or] to make structural changes in existing systems . . . as necessary to produce and distribute an adequate quantity of water meeting the state drinking water standards."), (3) ("If a public water supply poses an imminent hazard to the public health, the department may issue an emergency order immediately, . . . requiring such action as the department determines is necessary to protect the public health.").

¹⁵ 42 U.S.C. § 300i(a).

¹⁶ *Id.*

orders requiring the provision of alternative water supplies by persons who caused or contributed to the endangerment.”¹⁷ EPA has, in the past, used its emergency powers to issue orders to provide alternative safe water sources to community members, require public notice of the drinking water hazard, require contributors to the hazard to treat or otherwise mitigate the hazardous conditions, and require additional monitoring and data-collection activities.¹⁸

As Petitioners demonstrate below, the lead contamination in Flint’s drinking water meets the prerequisites that authorize EPA to take emergency action under the SDWA.

II. Interests of Petitioners

Petitioners are community groups and advocacy organizations seeking safe and clean water for all residents in Flint. For instance, the Coalition for Clean Water (Coalition), which includes Concerned Pastors for Social Action, Water You Fighting For, and Democracy Defense League Water Task Force, among other community members, has urged city and state officials for months to address Flint’s water-quality problems. The Coalition filed a lawsuit in June 2015 in the Circuit Court for the County of Genesee seeking declaratory, injunctive, and other relief relating to Flint’s water-quality problems.¹⁹ In August 2015, Food and Water Watch, Water You Fighting For, and the Coalition for Clean Water collected more than 26,000 signatures on a petition to Mayor Dayne Walling asking the City to end its use of the Flint River as a drinking water source.²⁰ Community members have also organized marches²¹ and met with City Council²² to raise concerns about the quality of Flint’s drinking water. These advocacy activities fueled awareness and concern

¹⁷ *Id.*

¹⁸ See H.R. Rep. No. 93-1185, 1974 U.S.C.C.A.N. 6454, 6487 (1974); *In re Yakima Valley Dairies*, Admin. Order on Consent (U.S. EPA Region 10, Mar. 5, 2013), http://www.epa.gov/region10/pdf/sites/yakimagw/consent_order_yakima_valley_dairies_march2013.pdf (attached as Ex. 18).

¹⁹ Compl., *Coalition for Clean Water v. City of Flint*, No. 104900-cz (Mich. Cir. Ct. June 5, 2015) (attached as Ex. 19).

²⁰ Ron Fonger, *Groups collect 26,000 signatures to end use of Flint River for Water*, Michigan Live, Aug. 31, 2015, http://www.mlive.com/news/flint/index.ssf/2015/08/groups_delivering_26000_signat.html#incart_river (attached as Ex. 20); Ron Fonger, *Flint mayor accepts petitions but not call to end use of Flint River*, Michigan Live, Aug. 31, 2015, http://www.mlive.com/news/flint/index.ssf/2015/08/flint_mayor_accepts_petitions.html (attached as Ex. 21).

²¹ William E. Ketchum III, *People take to streets to protest Flint water quality*, Michigan Live, Feb. 14, 2015, http://www.mlive.com/news/flint/index.ssf/2015/02/flint_residents_protest_citys.html (attached as Ex. 22).

²² AP, *Flint city councilman: ‘We got bad water,’* Detroit Free Press, Jan. 14, 2015, <http://www.freep.com/story/news/local/michigan/2015/01/14/flint-water-resident-complaints/21743465/> (attached as Ex. 23).

among residents and some elected officials in Flint,²³ but have not resulted in any comprehensive action by the City or the State.

III. Lead present in and likely to continue to enter Flint’s water system presents an imminent and substantial endangerment to human health

A. Lead is present in and likely to continue to enter Flint’s water system

Flint’s residents face ongoing endangerment from lead in their drinking water. Recent sampling data show that dangerously high levels of lead are present in and will likely continue to enter Flint’s water system.²⁴ In August and September 2015, Dr. Marc Edwards, a water resources engineering professor at Virginia Tech, tested 252 drinking water samples collected from Flint residences. Edwards found that *ten percent* of these samples had lead levels of 25 ppb or more, substantially in excess of the federal action level of 15 ppb.²⁵ Several samples exceeded 100 ppb, and one sample exceeded 1000 ppb.²⁶ Edwards’ sampling data show that lead—a contaminant under the SDWA²⁷—is present in Flint’s water system.

The results of Edwards’ testing are even more concerning because the sampling did not target high-risk residences, as the City is required to do under the Lead and Copper Rule.²⁸ Because lead levels in a water system are not evenly distributed, EPA requires monitoring for lead under the SDWA to target high-risk residences, “to better ensure that high levels of lead are detected and that the system institutes treatment that provides

²³ See Letter from Jim Ananich, Mich. Sen. Minority Leader and Sheldon Neeley, Phil Phelps, Mich. State Representatives, to Dan Wyant, MDEQ (Sept. 10, 2015) (attached as Ex. 24); Letter from U.S. Representative Dan Kildee, U.S. Representative, to Adm’r Gina McCarthy, U.S. EPA, and Director Dan Wyant, MDEQ (Sept. 9, 2015) (attached as Ex. 25).

²⁴ Flint’s water system is a “public water system” for purposes of the SDWA because it provides water for human consumption to more than twenty-five individuals. 42 U.S.C. § 300f(4).

²⁵ *Flint Town Hall Meeting Presentation and Distribution of lead results across Flint by ward and zip codes*, Flint Water Study (Sept. 16, 2015), <http://flintwaterstudy.org/2015/09/distribution-of-lead-results-across-flint-by-ward-and-zip-codes/> (attached as Ex. 26); Siddhartha Roy, *Flint Water Study Updates for the Citizens of Flint* (Sept. 15, 2015) (attached as Ex. 27); Ron Fonger, *Virginia Tech professor says Flint’s tests for lead in water can’t be trusted*, Michigan Live, Sept. 15, 2015, http://www.mlive.com/news/flint/index.ssf/2015/09/virginia_tech_researcher_says.html (attached as Ex. 28).

²⁶ *Lead testing results for water sampled by residents*, Flint Water Study, <http://flintwaterstudy.org/information-for-flint-residents/results-for-citizen-testing-for-lead-300-kits/> (attached as Ex. 29).

²⁷ See 42 U.S.C. § 300f(6).

²⁸ 40 C.F.R. § 141.86(a)(3)-(5); 56 Fed. Reg. 26,460, 26,514 (June 7, 1991) (adopting approach that “require[s] water systems to collect samples from high-risk residences that are most likely to have lead problems”).

uniform and adequate levels of public health protection.”²⁹ Because targeting high-risk residences “means that the detected levels will likely be higher than if sampling were randomly distributed,”³⁰ Edwards’ data showing a 90th percentile lead level of 25 ppb is particularly alarming given that his sampling protocol would be expected to produce *lower* results than the targeted sampling protocol mandated by the Lead and Copper Rule.

The City’s monitoring data confirm that some Flint residents’ water contains lead at concentrations above the federal action level. Several samples collected by the City showed lead levels as high as 397 ppb, 25 times the action level.³¹ Although the City claims that its data show that the 90th percentile lead concentration is lower than the 90th percentile in Edwards’ sampling pool, these differences may be attributable to the sampling methods employed by the City. For instance, the City instructed residents to pre-flush their water for “at least 5 minutes” before collecting the sample.³² Pre-flushing has the effect of reducing the amount of lead in the sample, which is why one of the key steps residents can take to reduce their lead exposure following discovery of a lead problem is to flush their taps prior to consuming tap water.³³ Pre-flushing in sampling results in “significant underestimation of lead levels in drinking water.”³⁴ Pre-flushing is not included in the collection procedures EPA recommends,³⁵ and is contrary to the Lead and Copper Rule’s intent to use worst-case lead and copper sampling data.³⁶ Evidence also shows that in the January to June 2015 monitoring period, the City did not use a pre-developed sampling pool that targeted high-

²⁹ 56 Fed. Reg. at 26,514.

³⁰ *Id.*

³¹ See Email from Jennifer Crooks, U.S. EPA, to Stephen Busch, MDEQ (Mar. 18, 2015) (referring to sample with lead level at 397 ppb) (attached as Ex. 30); Email from Jennifer Crooks, U.S. EPA, to Stephen Busch, MDEQ, et al. (June 4, 2015) (referring to samples showing lead levels 22 ppb and 40 ppb) (attached as Ex. 31); Consumer Notice of Lead & Copper Results in Drinking Water (Feb. 18, 2015) (lead level at 104 ppb) (attached as Ex. 32); see also Mich. Dep’t of Env’tl. Quality, Lead and Copper Report and Consumer Notice of Lead Result Certificate for Community Water Supply (Aug. 20, 2015) (showing six samples with lead levels over the action level (attached as Ex. 33)).

³² Drinking Water Lead & Copper Sampling Instructions, *available at* http://www.michigan.gov/documents/deq/Lead_Copper_Sampling_Instructions_329915_7.pdf (attached as Ex. 34).

³³ Memorandum from Miguel A. Del Toral, Regulations Mgr., Ground Water and Drinking Water Branch, U.S. EPA Region 5, to Thomas Poy, Chief, Ground Water and Drinking Water Branch, U.S. EPA Region 5, re High Levels in Flint, Michigan—Interim Report 2 (June 24, 2015) (attached as Ex. 35).

³⁴ *Id.*

³⁵ U.S. EPA, Lead and Copper Rules Monitoring and Reporting Guidance for Public Water Systems 28 (Mar. 2010) (attached as Ex. 36).

³⁶ See Letter from Cynthia C. Dougherty, U.S. EPA, to Ralph Scott, Alliance for Healthy Homes (Sept. 12, 2008) (“[W]e believe that [pre-flushing] goes against the intent of the monitoring protocol, since it changes the normal water use of the homeowners in the sample.”) (attached as Ex. 37).

risk residences and did not sample sites consistently across monitoring periods.³⁷ This likewise may have caused the City's sampling results to underrepresent the 90th percentile lead level in the water system.³⁸

The lead contamination in Flint's water is likely to continue. As EPA has explained, "[t]he amount of lead in drinking water depends heavily on the corrosivity of the water,"³⁹ and testing has shown that Flint River water is highly corrosive. Moreover, the City has no treatment program in place to control the corrosive effects of the water on the City's thousands of lead service lines.⁴⁰

B. Lead in drinking water presents an imminent and substantial endangerment to Flint residents

The endangerment to Flint residents from lead in drinking water is both "imminent" and "substantial."⁴¹ The endangerment to community members' health is imminent because the threat "is present *now*."⁴² Highly corrosive water in the Flint River has been flowing through lead service lines in Flint's water system for more than a year without any corrosion control treatment, and sampling has already shown the existence of dangerously high levels of lead in residents' tap water.

The seriousness of the potential harms from lead exposure renders the endangerment "substantial" for purposes of the SDWA.⁴³ The poisonous effects of lead on "virtually every system in the body," and particularly on the developing brains of young children, are well documented.⁴⁴ "Even low levels of lead in blood have been shown to affect IQ, ability to pay attention, and academic achievement," effects that are irreversible.⁴⁵

³⁷ See *infra* p. 11 & nn. 70-74; 40 C.F.R. § 141.86(a), (b)(4).

³⁸ See *infra* p. 11-12.

³⁹ 56 Fed. Reg. 26,460, 26,466 (June 7, 1991).

⁴⁰ MDEQ, Frequently Asked Questions: Water Lead Levels in the City of Flint (Sept. 2015), https://www.michigan.gov/documents/deq/deq-spotlight-Flint_water_FAQs_500946_7.pdf (stating that Flint has more than 15,000 lead service lines) (attached as Ex. 38).

⁴¹ *Id.* § 300i.

⁴² *Meghrig v. KFC Western, Inc.*, 516 U.S. 479, 486 (1996) (interpreting substantial-and-imminent-endangerment provision in RCRA).

⁴³ *E.g., Me. People's Alliance v. Mallinckrodt, Inc.*, 471 F.3d 277, 288 (1st Cir. 2006).

⁴⁴ Centers for Disease Control and Prevention, Preventing Lead Poisoning in Your Children: Chapter 2 (Oct. 1991), <http://www.cdc.gov/nceh/lead/publications/books/plpyc/chapter2.htm> (attached as Ex. 39); see also 80 Fed. Reg. 278, 290 (Jan. 5, 2015) ("Lead has been demonstrated to exert a broad array of deleterious effects on multiple organ systems."); 56 Fed. Reg. 26,460, 26,467-68 (June 7, 1991).

⁴⁵ Centers for Disease Control and Prevention, *What Do Parents Need to Know to Protect Their Children?* (last updated June 19, 2014), http://www.cdc.gov/nceh/lead/ACCLPP/blood_lead_levels.htm (attached as Ex. 40).

The scientific community has not identified *any* threshold of lead in blood below which there are no adverse health impacts.⁴⁶

Increased lead exposure from drinking water is dangerous because “drinking water can make up 20 percent or more of a person’s total exposure to lead.”⁴⁷ For infants whose diet consists of baby formula made with drinking water, lead in drinking water can make up between forty and sixty percent of total lead exposure.⁴⁸ Lead levels in drinking water above the federal action level have been associated with an increase in the rate of individuals with elevated blood lead levels.⁴⁹ Exposure to lead-contaminated drinking water has also been associated with fetal death and reduced birth rates.⁵⁰ As EPA has recognized, “[i]nfants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development.”⁵¹ In short, there is no safe level of lead in drinking water.⁵²

⁴⁶ Centers for Disease Control and Prevention, National Biomonitoring Program, Factsheet: Lead (last updated Jul. 12, 2013), http://www.cdc.gov/biomonitoring/Lead_Fact_Sheet.html (“No safe blood lead level has been identified.”) (attached as Ex. 41).

⁴⁷ U.S. EPA, Lead and Copper Rule: A Quick Reference Guide for Schools and Child Care Facilities that are Regulated Under the Safe Drinking Water Act (Oct. 2005), http://www.epa.gov/safewater/schools/pdfs/lead/qrg_lcr_schools.pdf (attached as Ex. 42).

⁴⁸ Lead in Drinking Water, Wisc. Dep’t of Nat. Res. 2008), <http://dnr.wi.gov/topic/drinkingwater/documents/forms/lead.pdf> (attached as Ex. 43). Several cases have also been reported in which infant formula constituted from lead-contaminated tap water was determined to be the sole cause of childhood lead poisoning. *See, e.g.,* Michael Shannon & John W. Graef, *Lead Intoxication: From Lead-contaminated Water Used to Reconstitute Infant Formula*, 28 *Clinical Pediatrics* (8) 380, 381 (1989) (attached as Ex. 44).

⁴⁹ Ronnie Levin, et al., *Lead Exposures in U.S. Children, 2008: Implications for Prevention*, 116 *Environ. Health Perspect.* (1) 1285-93 (2008), available at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2569084/> (attached as Ex. 45); CDC, *Blood Lead Levels in Residents of Homes with Elevated Lead in Tap Water—District of Columbia, 2004*, 53 *MMWR Weekly* (No. 12) 268-70 (Apr. 2, 2004), available at <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5312a6.htm> (attached as Ex. 46).

⁵⁰ Marc Edwards, *Fetal Death and Reduced Birth Rates Associated with Exposure to Lead-Contaminated Drinking Water*, 48 *Envtl. Sci. & Tech.* 739-40 (2013), available at <http://pubs.acs.org/doi/pdf/10.1021/es4034952> (attached as Ex. 47).

⁵¹ U.S. EPA, Basic Information about Lead in Drinking Water, *supra* note 11.

⁵² *See* Email from Jennifer Crooks, U.S. EPA, to Mike Prysby, MDEQ (Feb. 26, 2015) (“[T]here are no safe levels of lead in drinking water.”) (attached as Ex. 48); City of Flint Issues Lead Advisory, *supra* note 13 (recognizing that “no level of lead is considered safe”). Because no safe level of lead in blood has been identified, EPA promulgated a Maximum Contaminant Level Goal for lead in drinking water of *zero*, reflecting EPA’s determination that a threshold of zero lead in drinking water is the level at which “no known or anticipated adverse effects” on human health will occur, allowing for a margin of safety. *See* 40 C.F.R. §§ 141.2, 141.51(b).

Petitioners have reason to be concerned about the health impacts of increased exposure to lead in drinking water. A recent study conducted by researchers at Flint's Hurley Medical Center found that the rate of Flint children with elevated blood lead levels is rising. An analysis of 1746 Flint children under five years old showed that the proportion of children with elevated blood lead levels has *doubled* in the time since the City changed its drinking water source.⁵³ The study found that the rate of elevated blood lead levels in children under fifteen months is 2.5 times greater after the switch to Flint River water than the rate before the switch.⁵⁴ The study found no corresponding statistically significant increase in the rate of elevated blood lead levels of children living in Genesee County outside of Flint.⁵⁵ Data released by the State confirm that the percentage of Flint children under sixteen with elevated blood levels has risen (from 2.37% to 3.21%) since the switch to Flint River water.⁵⁶

This increased rate of children with elevated blood lead levels is even more alarming because the Flint community may be more at risk for elevated blood lead levels and lead poisoning than communities elsewhere in the country. Michigan ranks fifth worst in the country for harmful exposures to lead.⁵⁷ Low income is a risk factor for lead poisoning, and the proportion of families living below the poverty level in Flint is more than three times the national proportion (35.5% in Flint vs. 11.3% nationally in 2013 estimates).⁵⁸ Living in housing built before 1978 (when the federal ban on high-lead paint went into effect) is also a risk factor, because dust from lead paint continues to be a major source of lead exposure in children.⁵⁹ Nearly 90% of housing in Flint was built before

⁵³ Pediatric Lead Exposure in Flint, MI: Concerns from the Medical Community (PowerPoint Presentation), *available at* <http://flintwaterstudy.org/2015/09/pediatric-lead-exposure-presentation-from-hurley-medical-center-doctors-concerning-flint-mi/> (attached as Ex. 49).

⁵⁴ *Id.*

⁵⁵ *Id.*

⁵⁶ Kristi Tanner & Nancy Kaffer, *State data confirms higher blood-lead levels in Flint kids*, Detroit Free Press, Sept. 29, 2015, <http://www.freep.com/story/opinion/columnists/nancy-kaffer/2015/09/26/state-data-flint-lead/72820798/> (attached as Ex. 50).

⁵⁷ Centers for Disease Control and Prevention, *Public Health in Action: Lead Poisoning Prevention in Michigan* (last updated Feb. 4, 2013), http://www.cdc.gov/nceh/information/healthy_homes_lead.htm (attached as Ex. 51).

⁵⁸ 2009-2013 American Community Survey 5-year Estimates, 2013, *available at* <http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml> (enter "Flint, MI" in the box under "Community Facts," click on "Income" on left-side bar, then click "Selected Economic Characteristics" under "2013 American Community Survey") (table attached as Ex. 52 compares data from Flint, MI to Michigan and the United States).

⁵⁹ *See, e.g.,* Am. Cancer Soc'y, *Lead, Lead in the Environment*, <http://www.cancer.org/cancer/cancercauses/othercarcinogens/athome/lead> (last updated May 27, 2014) (characterizing lead paint as a "major" source of exposure) (attached as Ex. 53).

1978.⁶⁰ These factors show that the risks to Flint residents from lead exposure may be particularly acute.

The monitoring data showing high lead levels in Flint drinking water, combined with the well-known serious adverse health impacts of lead exposure, demonstrate “a substantial likelihood that contaminants capable of causing adverse health effects will be ingested by consumers if preventive action is not taken.”⁶¹ These circumstances constitute an imminent and substantial endangerment warranting emergency federal action.⁶²

IV. Neither the City nor MDEQ has acted to protect Flint residents from continuing health risks of exposure to high lead levels in drinking water

Federal emergency action is necessary because neither the City nor MDEQ has adequately addressed the danger to Flint residents from lead in their drinking water. To date, the local and state response to lead concerns has been, at best, nominal and ineffective.⁶³

The state-appointed emergency manager and MDEQ allowed the City to begin using the Flint River as its water source without adequately ensuring that the system would continue to “operate and maintain optimal corrosion control treatment,” as required by the SDWA.⁶⁴ The Lead and Copper Rule requires states to “review and approve the addition of a new source or long-term change in water treatment before it is implemented by the water system.”⁶⁵ But as of March 28, 2014, three weeks before the City planned to start using Flint River water, the City had not even submitted an application to the State for approval to make the change.⁶⁶ A month later, MDEQ had approved the change without requiring the City to implement corrosion control measures, as required by the Lead and

⁶⁰ 2012 Annual Data Report on Blood Lead Levels of Children in Michigan 26 (Apr. 2013), https://www.michigan.gov/documents/mdch/2012AnnualDataReportOnBloodLeadLevels_419508_7.pdf (attached as Ex. 54); see CPSC, *CPSC Announces Final Ban on Lead-Containing Paint* (Sept. 2, 1977), <http://www.cpsc.gov/en/Recalls/1977/CPSC-Announces-Final-Ban-On-Lead-Containing-Paint/> (attached as Ex. 55); Maj. Thomas F. Zimmerman, *The Regulation of Lead-Based Paint in Air Force Housing*, 44 Air Force L. Rev. 169, 175 (1998).

⁶¹ H.R. Rep. No. 93-1185, 1974 U.S.C.A.A.N. 6454, 6488 (July 10, Aug. 15, 1974) (defining when an endangerment may be considered substantial).

⁶² See *Trinity Am. Corp. v. U.S. E.P.A.*, 150 F.3d 389, 399 (4th Cir. 1998) (imminent and substantial endangerment found when “dangerous levels of [a] contaminant[] exist in [the] water supply,” and that the contaminant “pose[s] a great risk to human health”).

⁶³ See *id.* at 397 (explaining that “minor” and “ineffective” action by state and local authorities does not “strip EPA of its statutory emergency powers”).

⁶⁴ 40 C.F.R. § 141.81(b).

⁶⁵ 40 C.F.R. § 141.81(b)(3)(iii).

⁶⁶ Dominic Adams, *State says Flint hasn’t applied for permit to use river as drinking water source*, Michigan Live, Mar. 28, 2014, http://www.mlive.com/news/flint/index.ssf/2014/03/state_says_flint_hasnt_applied_1.html (attached as Ex. 56).

Copper Rule.⁶⁷ When EPA inquired about what the City was doing to control corrosion, MDEQ falsely stated that the City was already operating an “Optimized Corrosion Control Program.”⁶⁸ The opposite was true: as the State later admitted, the City had not implemented any corrosion control treatment measures (and still has not done so).⁶⁹

Further, evidence indicates that the City and MDEQ are either unwilling or unable to conduct tap water monitoring for lead in compliance with federal regulations. As discussed above, statements by a Flint Utilities Administrator suggest that the City did not identify a sampling pool prior to conducting monitoring, as federal law expressly requires. Instead, the Department of Public Works “just thr[ew] out bottles everywhere just to collect as many [samples] as we c[ould].”⁷⁰ The City even asked its own employees and their “family/friends who live in the city” to participate in the sampling group.⁷¹

The City also may not have complied with requirements for targeting high-risk homes, including the requirement that 50% of sampled sites contain lead pipes or copper pipes with lead solder.⁷² The City’s Utilities Administrator conceded that the City was “not really” able to determine that every residence sampled had lead pipes, even though this was what the City affirmatively reported to MDEQ in a monitoring compliance report.⁷³ Further, the City’s monitoring compliance report shows that the City did not meet the deadline to submit its monitoring results and did not comply with the requirement to sample the same sites across monitoring periods.⁷⁴ During the January to June 2015 monitoring period, the City initially sought to obtain 100 samples.⁷⁵ *After* the City failed to collect that number, MDEQ decided that only sixty samples were required.⁷⁶

⁶⁷ See 40 C.F.R. § 141.81(a)-(b).

⁶⁸ See Email from Stephen Busch, MDEQ, to Jennifer Crooks and Miguel Del Toral, U.S. EPA (Feb. 27, 2015) (“The City of Flint . . . [h]as an Optimized Corrosion Control Program[.]”) (attached as Ex. 57).

⁶⁹ Email from Pat Cook, MDEQ, to Miguel Del Toral, U.S. EPA (Apr. 24, 2015) (“Flint is not currently practicing corrosion control treatment at the [Water Treatment Plant].”) (attached as Ex. 58).

⁷⁰ See 40 C.F.R. § 141.86(a)(1); *Thirst for Truth: Who’s to Blame for Flint Water Crisis?* (ACLU of Michigan, Jul. 28, 2015), available at <https://www.youtube.com/watch?t=9&v=LT09irD2f0Y> (statement of Michael Glasgow, Utilities Administrator).

⁷¹ Email from Michael Glasgow (June 1, 2015) (attached as Ex. 59).

⁷² 40 C.F.R. § 141.86(a)(8).

⁷³ *Thirst for Truth*, supra note 70 (statement of Michael Glasgow, Utilities Administrator, at 5:30-5:45).

⁷⁴ City of Flint Water Plant, Lead and Copper Report and Consumer Notice of Lead Result Certificate for Community Water Supply (Jul. 28, 2015) (checking “no” box in response to question asking whether City used the same sampling sites as the previous monitoring period) (attached as Ex. 60); see 40 C.F.R. §§ 141.86(b)(4); 141.90(a)(1).

⁷⁵ See Email from Adam Rosenthal, MDEQ, to Michael Glasgow, Brent Wright, City of Flint (June 25, 2015) (attached as Ex. 61).

⁷⁶ *Compare id.* (“We hope you have 61 more lead/copper samples collected and sent to the lab by 6/30/15, and that they will be below the AL for lead. As of now with 39 results,

Compliance with the SDWA's monitoring requirements is critical to accurately assessing the levels of lead in Flint's water, and to ensuring implementation of the drinking water standards set forth in the Lead and Copper Rule. Although the serious apparent flaws in the City's testing procedures call into question whether the City is complying with the SDWA, both the City and MDEQ continue to maintain that Flint's water "is meeting state and federal drinking water standards."⁷⁷

Neither the City nor MDEQ has taken measures to broadly provide an alternative, free source of safe drinking water to residents. Instead, state and local authorities have dismissed citizen concerns about lead in drinking water as "near-hysteri[cal]" and "irresponsible."⁷⁸ City officials have encouraged residents to install in-home water filters, flush their taps before using the water, and send their children to school with bottled water, all at the residents' own expense, which is alarming given that there are roughly 14,000 households in Flint with children under 18, and nearly three-quarters of the children in those households receive Supplemental Security Income (SSI), cash public assistance income, or Food Stamp/SNAP benefits.⁷⁹ These remedies are inadequate: filters are expensive, may clog quickly, are of varying effectiveness at removing lead, and require

Flint's 90th percentile is over the AL for lead."), *with* City of Flint, Lead and Copper Report and Consumer Notice of Lead Result Certificate for Community Water Supply, *supra* note 31, at 1 ("Revised report after conference call with DEQ staff . . . [D]ue to population the number of samples required was reduced to 60.").

⁷⁷ Letter from MDEQ to MI State Senators 2 (Sept. 17, 2015) (attached as Ex. 62); City of Flint, *City of Flint Issues Lead Advisory*, *supra* note 13 ("[T]he City is in full compliance with the Federal Safe Drinking Water Act.").

⁷⁸ *Did this Michigan Town Poison its Children?*, U.S. News & World Report, Sept. 24, 2015, <http://www.usnews.com/news/articles/2015/09/25/flint-michigan-children-show-high-levels-of-lead-in-blood> (attached as Ex. 63); Ron Fonger, *Feds sending in experts to help Flint keep lead out of water*, Michigan Live, Sept. 10, 2015, http://www.mlive.com/news/flint/index.ssf/2015/09/university_researchers_dont_dr.html (attached as Ex. 64). The City's statement that it will "work with [MDEQ] on implementing water optimization measures to reduce the corrosive effects of water on older pipes" by 2016 is a hollow promise given the present and continuing exposure to lead and lead's irreversible effects on human health. Ron Fonger, *Flint will have lead-reduction plan for water system by 2016, officials say*, Michigan Live, Sept. 3, 2015, <http://www.mlive.com/news/flint/index.ssf/2015/09/mayor.html> (attached as Ex. 65).

⁷⁹ City of Flint, *City of Flint Issues Lead Advisory*, *supra* note 13; Amanda Emery, *Flint public school students told to bring own water to school*, Michigan Live, Sept. 25, 2015, http://www.mlive.com/news/flint/index.ssf/2015/09/flint_community_schools_asks_s.html (attached as Ex. 66); *see* factfinder.census.gov (2010 data) (enter "Flint, MI" in box under "Community Facts," then click "General Population and Housing Characteristics" under "2010 Census") (attached as Ex. 67); 2009-2013 American Community Survey 5-Year Estimates, Children's Characteristics (2013 estimate), factfinder.census.gov (enter "Flint, MI" in box under "Community Facts," then click "Poverty" on left-side bar, then click "Children Characteristics") (attached as Ex. 68).

ongoing maintenance. Pre-flushing is also imperfect, does not always eliminate lead, and may be prohibitively expensive for many families given Flint's high water rates.⁸⁰

The City's and State's apparent lapses in regulatory compliance, and their failure to take responsibility for responding to the City's lead problems, demand federal intervention.

V. EPA should act immediately to adequately address the public health emergency created by lead in Flint drinking water

Petitioners urge EPA to take all actions necessary to abate the endangerment presented by lead in Flint's drinking water, and to inform Flint residents about the potential hazards of drinking the City's tap water. At minimum, Petitioners request that EPA:

- Immediately order the City and MDEQ to reconnect Flint's water system with water from the Detroit Water and Sewerage Department. EPA should work with the City of Flint, MDEQ, and the Detroit Water and Sewerage Department to facilitate this renewed connection as soon as possible.
- Immediately provide Flint residents with an alternative, free source of safe drinking water that meets EPA standards. This may include providing customers with free bottled water or providing (and routinely maintaining) free in-home and replacement filters that are certified to remove lead by NSF International.⁸¹
- Immediately order the City to advise all Flint water customers to avoid consuming unfiltered water from the City's water system. The notice should warn customers not to use unfiltered Flint water to make baby formula or for children. The notice should inform customers that if they have no alternative water source, they should flush Flint water for *a minimum* of five minutes before

⁸⁰ Dominic Adams, *Flint monthly water and sewer bills highest in Genesee County by \$35*, Michigan Live, June 1, 2014, http://www.mlive.com/news/flint/index.ssf/2014/06/post_386.html (citing Flint bills at \$140/month) (attached as Ex. 69). A state-court judge recently ruled that the Emergency Manager's decision to significantly raise water rates was unlawful. Ron Fonger, *Judge orders Flint to cut water rates 30% in sweeping injunction*, Michigan Live, Aug. 7, 2015, http://www.mlive.com/news/flint/index.ssf/2015/08/flint_ordered_to_cut_water_rat.html (attached as Ex. 70).

⁸¹ See U.S. EPA, Planning for an Emergency Drinking Water Supply (June 2011) (provision of bottled water is a "common federal response" in emergencies) (attached as Ex. 71); *cf.* 40 C.F.R. § 141.101 (allowing public water systems to use bottled water on a temporary basis "to avoid unreasonable risk to health"); U.S. EPA, Memorandum re: Update on Providing Alternative Water Supply as Part of Superfund Response Actions (Sept. 24, 2010), <http://www.epa.gov/superfund/health/conmedia/gwdocs/pdfs/610732.pdf> (allowing delivery of bottled water on a temporary basis in certain circumstances in CERCLA removal or remediation actions) (attached as Ex. 72).

use. EPA should prohibit the City from charging water customers for this flushing time.

- Use its authority under 40 C.F.R. §§ 142.19 and 141.82(i) to review MDEQ's determinations concerning corrosion control requirements for the Flint water system, and issue a federal order establishing the optimal corrosion control treatment requirements for the Flint water system and requiring Flint to immediately comply with these requirements.
- Order the City to conduct continued monitoring for lead and copper in six-month periods in accordance with the procedures set forth in 40 C.F.R. § 141.86. EPA should directly oversee the City's monitoring by ordering the City to submit a Quality Assurance Project Plan (QAPP) to ensure that all information, sample collection, analytical data and resulting decisions are technically sound, scientifically valid, and properly administered. EPA must approve the City's QAPP before the City conducts any additional monitoring. EPA should prohibit the City from conducting reduced monitoring under 40 C.F.R. § 141.86(d)(4) for at least five years.
- Order the City to comply with the public education and supplemental monitoring requirements in 40 C.F.R. § 141.85, including but not limited to immediately notifying consumers of the results of tests completed at their homes or places of business, and providing the public education, monitoring, and notification established in those rules.
- Order any other additional relief that EPA determines is "necessary to protect the health" of Flint residents from lead contamination in drinking water.

VI. Conclusion

For the foregoing reasons, Petitioners respectfully request that EPA take the actions necessary to abate the imminent and substantial endangerment to Flint residents' health from lead contamination in their drinking water.

Dated: October 1, 2015

Respectfully Submitted,

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