Submitted to the
United States Environmental Protection Agency

Petition for Emergency Action under the Safe Drinking Water Act, 42 U.S.C. § 300i and 42 U.S.C. § 300j-1(b), to Abate the Imminent and Substantial Endangerment to Benton Harbor, Michigan Residents from Lead Contamination in Drinking Water

---

Submitted on Behalf of Petitioners Benton Harbor Community Water Council, Great Lakes Environmental Law Center, NRDC, Flint Rising, People's Water Board Coalition, Michigan Welfare Rights Coalition, Water You Fighting For, Safe Water Engineering, LLC, Highland Park Human Rights Coalition, Michigan Environmental Justice Coalition, Sierra Club Michigan Chapter, Dr. Mona Hanna-Attisha, Clean Water Action, Ecology Center, Freshwater Future, East Michigan Environmental Action Council, Detroit People's Platform, Campaign for Lead Free Water, For Love of Water, Environmental Transformation Movement of Flint

September 9, 2021

Petition Submitted Via Email and Regular Mail

Michael Regan
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Mail Code: 1101A
Washington, DC 20460
VIA EMAIL: Regan.Michael@epa.gov

Cheryl L. Newton
Acting Regional Administrator
U.S. Environmental Protection Agency, Region 5
77 West Jackson Boulevard
Mail Code: R-19J
Chicago, IL 60604
VIA EMAIL: Newton.Cheryl@epa.gov

Radhika Fox
Assistant Administrator for Water
U.S. Environmental Protection Agency
Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Mail Code: 4101M
Washington, DC 20460

VIA EMAIL: Fox.Radhika@epa.gov

Lawrence Starfield
Acting Assistant Administrator for Enforcement and Compliance Monitoring
U.S. Environmental Protection Agency
Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460
VIA EMAIL: starfield.lawrence@epa.gov

Table of Contents

I. Introduction

For at least the past three years, Benton Harbor residents have been subjected to levels of lead contamination from their public water system that presents an imminent and substantial endangerment to their health. Levels of lead contamination have significantly exceeded the lead action level set by the EPA's lead and copper rule continually since at least the fall of 2018. While the lead action level is not a health-based threshold (as discussed in more detail below, there is no safe level of lead in drinking water) both the federal and Michigan lead and copper rule establish detailed, mandatory actions with specified deadlines that both the Benton Harbor and the Michigan Department of Environment, Great Lakes, and Energy (EGLE) must undertake to reduce levels of lead contamination after a lead action level exceedance. Both the City of Benton Harbor and EGLE have failed to undertake these actions in a timely manner as required by both the federal and Michigan lead and copper rules. We request that EPA issue an emergency administrative order under section 1431 of the Safe Drinking Water Act (SDWA), 42 U.S.C. §300i, and provide assistance and grants under SDWA §1442(b), 42 U.S.C. §300j-1(b), irrespective of whether the agency finds that there has been a violation of the Act, since the lead levels continue to present "an imminent and substantial endangerment to the health of persons" and no finding of a violation is required. Residents continue to live with significant and dangerous levels of lead contamination three years after the contamination was first discovered with no immediate solution in sight. Our presumption that the lead contamination problem was discovered three years ago is based upon currently publicly available data, though it is possible that the lead problem predated this time and was discovered earlier.

Benton Harbor can be characterized as an environmental justice community. Approximately 9,700 people live in Benton Harbor. Of those people, 85% are Black and 5% are Hispanic.[1] It is also a low-income community, with approximately 45% of the population having an income below the federal poverty line.[2] Benton Harbor has stated that it has 5,877 total service lines; 51% of its service lines either are known to contain lead, are known to be galvanized lines previously connected to lead, or are of unknown material but likely to contain lead; 47% of the service lines are of unknown material with no information, which should be assumed to contain lead until proven otherwise; and only 2% of the service lines have been confirmed as containing no lead and not being galvanized lines previously connected to lead.[3] As an environmental justice community, Benton Harbor's residents are not only subjected to a disproportionately high level of lead exposure from a variety of sources beyond their drinking water, but also often lack access to high quality health care and are exposed to a wide array of other threats that can exacerbate the negative health effects associated with lead exposure.

---

[1] United States Census Bureau, *QuickFacts: Benton Harbor, Michigan*, https://www.census.gov/quickfacts/fact/table/bentonharborcitymichigan/PST045219 (last visited Aug. 24, 2021).
[2] *Id*.
[3] Michigan Department of Environment, Great Lakes, and Energy, *Michigan Service Line Materials Estimates Preliminary Distribution System Materials Inventories,* last updated Dec. 2020, (attached as Exhibit 1), *available at* https://www.michigan.gov/documents/egle/egle-dwehd-PDSMISummaryData_682673_7.pdf

The shortcomings of the existing federal Lead & Copper Rule (LCR) has also played no small part in perpetuating this lead emergency faced by the people of Benton Harbor. Most notably, the lack of a Maximum Contaminant Level (MCL) for lead in drinking water has served as a significant impediment to adequate enforcement. The Safe Drinking Water Act (SDWA) requires the EPA to set a health-based MCL for each contaminant that it regulates and the MCL should be set as close to the maximum contaminant level goal at which no known adverse health effects will occur.[4] For lead, that level is zero. Under an MCL, when that level is exceeded and a violation occurs, there is immediate and straightforward legal recourse for that violation.

In 1991, when the EPA created the federal LCR it did not create an MCL - claiming that an MCL was not feasible at the time. Instead, it set a treatment technique that EPA has since acknowledged is one of the most complicated drinking water regulations for states and drinking water utilities to implement and enforce.[5] EPA is allowed to set a treatment technique instead of an MCL only when it determines that ascertaining the level of contaminant in drinking water is either technologically or economically infeasible. However, a treatment technique must "prevent known or anticipated adverse effects on the health of persons to the extent feasible."[6] Under the treatment technique for lead, an action level of 15 ppb was set and when sampling exceeds that action level it is supposed to trigger requirements for corrosion control treatment, source water treatment, lead service line replacement, and public education.[7] Yet, as we have seen here in Benton Harbor, and in communities around the county, this treatment technique has failed to meet its preventative health standards and has exposed countless people to lead-contaminated drinking water. And while circumstances have changed since 1991 and an MCL is now feasible, EPA did not consider an MCL in its recently revised federal LCR undermining the likelihood of meaningful action on lead in drinking water in places like Benton Harbor.

The persistently high levels of lead in Benton Harbor's public water system, the City's status as an environmental justice community, the City of Benton Harbor and EGLE's failure to address these issues in a timely manner, and the failure of authorities to adopt any immediate solution to reduce levels of lead contamination in the water system have created an imminent and substantial endangerment to public health that warrants emergency EPA action under the Safe Drinking Water Act, 42 U.S.C. § 300i and 42 U.S.C. § 300j-1(b). A discussed in this petition, while we believe that there have been numerous violations of the state and federal lead and copper rule treatment technique requirements, we again note that EPA can and must take emergency action for Benton Harbor due to the imminent and substantial health threat, irrespective of whether the agency finds that a violation of the lead and copper rule has occurred.

The Benton Harbor Community Water Council, Great Lakes Environmental Law Center, NRDC, Flint Rising, People's Water Board Coalition, Michigan Welfare Rights Coalition, Water You Fighting For, Safe Water Engineering, LLC, Highland Park Human Rights Coalition, Michigan Environmental Justice Coalition, Sierra Club Michigan Chapter, Dr. Mona Hanna-Attisha, Clean Water Action, Ecology Center, Freshwater Future**,** East Michigan Environmental Action Council, Detroit People's Platform, Campaign for Lead Free Water, For Love of Water,

[4] U.S.C § 300g-1(b)(4)(B)
[5] 84 Fed. Reg. 61,684 (Nov. 13, 2019).
[6] U.S.C § 300g-1(b)(7)(A)
[7] 40 CFR § 141.80

Environmental Transformation Movement of Flint (collectively, "Petitioners") urge the EPA to take the actions described in section VI of this petition to abate this present and ongoing public health emergency.

II. Interest of Petitioners

The Petitioners are community groups, nonprofit corporations, and other organizations that believe immediate EPA action is needed in order to provide safe and clean drinking water to all Benton Harbor residents as quickly as possible. Many have regularly engaged with both EGLE and the EPA to advocate for the protection of residents from lead contamination in drinking water. In November 2019, numerous Petitioners sent a letter to EGLE expressing specific concerns about lead contamination in the Benton Harbor water system as well as EGLE's inadequate response.

Among the Petitioners are also local organizations that have long advocated for a more urgent response to the ongoing crisis in Benton Harbor. The Benton Harbor Community Water Council (BHCWC) is a community-based grassroots organization that aims to inform, educate, and empower Benton Harbor residents about land, water, education, and the democratic process. The group was formed in 2018 in response to the City of Benton Harbor's lead in drinking water contamination. In 2019 and 2020, BHCWC volunteers distributed 10,000 cases of water each year along with educational literature to help protect local residents from lead in drinking water. BHCWC has hosted five filter distribution events for the Berrien County Health Department (BCHD), and the group's volunteers have assisted with filter installations for Benton Harbor residents who received filters at these distribution events. Unfortunately, BCHD was unwilling to provide filters to BHCWC so they could visit homes to educate residents about filter use/maintenance and install water filters, but they have continued distributing emergency water to residents while working to fix the lead in drinking water problem.

III. Background

Since high levels of lead were first discovered in Benton Harbor's drinking water, both Benton Harbor and EGLE have failed to address this public health crisis with the urgency it requires. Further, both have failed to follow key requirements of the federal and Michigan lead and copper rule that were triggered upon the initial exceedance of the lead action level and meant to minimize lead contamination as soon as possible.

A. June - September 2018 Sampling Period: Discovery of Elevated Lead Levels

Lead contamination in the Benton Harbor public water system first came to the fore, as far as we are aware based upon publicly available information, in the summer of 2018. At the time, Benton Harbor only monitored for lead in drinking water every three years. In tap samples collected between June 1, 2018 and September 30, 2018, the 90th percentile was 22 parts per

billion, well above the action level of a 90th percentile of 15 parts per billion.[8] At the time of its lead action level exceedance in 2018, Benton Harbor was not implementing any corrosion control treatment pursuant to the federal or Michigan lead and copper rule. The lead action level exceedance triggered a number of requirements under the federal and Michigan lead and copper rule, including to increase its tap monitoring frequency to two sampling periods per year and to implement the corrosion control treatment steps.[9] Lead service line replacement requirements are also required for systems that exceed the lead action level and have installed corrosion control treatment.[10]

The corrosion control treatment steps describe specific actions that both the Benton Harbor public water system and EGLE were required to undertake by specified deadlines. The clock for the corrosion control treatment steps begins to run at the end of the monitoring period during which a water system exceeds the lead action level. In general, monitoring periods for water systems on semi-annual monitoring schedules end on December 31st.[11] As such, the clock for the corrosion control treatment steps described in both the federal and Michigan lead and copper rules began to run on January 1, 2019, three full months after the end of the sampling period in which both Benton Harbor and EGLE discovered (to the best of our knowledge) that Benton Harbor's public water system had high levels of lead contamination.

B. January - June 2019 Sampling Period: The Initial Response

On January 9, 2019, EGLE staff noted that it had received a call from a local resident stating that she had received a letter from the City of Benton Harbor asserting that the "water is safe to drink after first flush."[12] The resident also recounted a conversation with the Benton Harbor drinking water superintendent, who reportedly advised her that Benton Harbor is delivering "clean water right to the tap and you should have no trouble drinking it."[13]

In the meantime, both EGLE and Benton Harbor quickly decided that the best course of action was to have Benton Harbor begin to implement corrosion control treatment prior to studying or testing it on Benton Harbor infrastructure in hopes that it would work to reduce lead contamination. In January 2019, Benton Harbor submitted a permit application to install a

---

[8] Letter from Jeni Bolt and Brandon Onan, Michigan Department of Environmental Quality, to Darwin Watson, City of Benton Harbor, *Re: Lead and Copper Monitoring - Action Level (AL) Exceedance* (Oct. 22, 2018), (attached as Exhibit 2).

[9] 40 C.F.R. § 141.81(c) (2020) (stating that the "requirement for any small- or medium-size system to implement corrosion control treatment steps in accordance with paragraph (e) of this section (including systems deemed to have optimized corrosion control under paragraph (b)(1) of this section) is triggered whenever any small- or medium-size system exceeds the lead or copper action level."); Mich. Admin. Code R. 325.10604f(2)(c) (language largely mirrors 40 CFR 141.81(c) described above).

[10] 40 C.F.R. §141.84 (2020); Mich. Admin. Code R. 325.10604f(5).

[11] *See* 40 C.F.R. § 141.2 (2020) (defining "tap sampling monitoring period" and noting that in general new tap sampling monitoring periods begin on January 1 except for systems required to conduct semi-annual monitoring).

[12] Email from Ernest Sarkipato to EGLE Staff, *Re: Benton Harbor Follow Up Call* (Jan. 9, 2019), (attached as Exhibit 3) *available at* https://drive.google.com/file/d/1OvRRrLYqesmh7ZDbccOIwtg5oBlkJ542/view?usp=sharing.

[13] *Id*.

polyphosphate blend recommended by Elhorn Engineering Company.[14] Specifically, Benton Harbor proposed to utilize a proprietary polyphosphate blend referred to as Carus 8600, which consisted of 70% orthophosphate and 30% polyphosphate with a target dose of 1.5 mg/L.[15]

At least one EGLE staff expert expressed skepticism that this corrosion control treatment would effectively reduce lead contamination in the Benton Harbor public water system. In an email dated February 21, 2019, Brian Thurston, EGLE's Community Water Supply Section Manager, noted that the "attached permit does not show how the consultant is planning to reach OCCT" and that in his opinion a "higher initial dose of orthophosphate is needed to quickly establish a protective film in the Pb service lines."[16] He also stated he did not support the permit application as submitted.[17] Nonetheless, EGLE approved the permit at the end of February 2019 on the condition that Benton Harbor study the effectiveness of the inhibitor after treatment began.[18] On March 8, 2019, Benton Harbor and EGLE executed an administrative consent order that, among other things, required Benton Harbor to either submit a proposal for optimal corrosion control treatment or a corrosion control study no later than May 1, 2019.[19] Benton Harbor began feeding the polyphosphate blend to the public water system on March 21, 2019.[20]

In April 2019, Benton Harbor, through its consultant Elhorn Engineering, provided EGLE with a corrosion control treatment plan and study proposal apparently intended as a response to the requirements of the administrative consent order.[21] It stated that Elhorn would conduct water quality parameter monitoring and install a minimum of two coupon racks containing mild steel, copper, and lead to test the effectiveness of the Carus 8600 inhibitor.[22] Based on the results of this study, Elhorn was to create a final draft for an EGLE permit application for an optimal corrosion control treatment designation.[23] Similar to the study required as a condition to the March 2019 permit, this corrosion control study proposed by Elhorn Engineering did not meet the requirements of the federal or Michigan lead and copper

---

[14] Permit Application for Water Supply Systems, Received Jan. 24, 2019, (attached as Exhibit 4) available at, https://drive.google.com/file/d/1goQmiYBu3uqIs3wYPLqyfRBBLqn1s6K2/view?usp=sharing; Letter from Mike Enlow, Elhorn Engineering, to Mike O'Malley, Benton Harbor Water Superintendent (Nov. 21, 2018), (attached as Exhibit 5), *available at* https://drive.google.com/file/d/16dw-jN5n6Kg4Hpamcgxj9AQUXpp2yFYV/view?usp=sharing.

[15] Permit Application for Water Supply Systems, Received Jan. 24, 2019, (attached as Exhibit 4) available at, https://drive.google.com/file/d/1goQmiYBu3uqIs3wYPLqyfRBBLqn1s6K2/view?usp=sharing.

[16] Email from Brian Thurston, EGLE Community Water Supply Section Manager, to EGLE Staff (Feb. 21, 2019), (attached as Exhibit 6), *available at* https://drive.google.com/file/d/1TlkEfR1TSBGsebG7W4nucGS0BKYEbc0x/view?usp=sharing.

[17] *Id*.

[18] Email from Brandon Onan, EGLE Corrosion Control Engineer, to Ernest Sarkipato, EGLE, (Feb. 25, 2019), (attached as Exhibit 7), *available at* https://drive.google.com/file/d/1dGEn45Ez_NMHrVW5EfWtSj_8TJIMJn4-/view?usp=sharing.

[19] Administrative Consent Order; City of Benton Harbor; WSSN: 00600 (Mar. 8, 2019), (attached as Exhibit 8), *available at* https://drive.google.com/file/d/1N9WH9Ffx7FtAkinI_qX7ih6A8tEGDjmm/view?usp=sharing.

[20] Email from Mike O'Malley, Benton Harbor Water Superintendent, to EGLE Staff (Mar. 27, 2019), (attached as Exhibit 9), *available at* https://drive.google.com/file/d/1UhLGzBWwZuTEgWlScnJ5nxBPL8yQVRcP/view?usp=sharing.

[21] Elhorn Company, *Corrosion Control Treatment Plan and Study Proposal* (April 23, 2019), (attached as Exhibit 10), *available at* https://drive.google.com/file/d/1T8xPSSgdeJ9yWRC4MBqNNl0WcHbK72IC/view?usp=sharing.

[22] *Id*.

[23] *Id*.

rule in that it only proposed to analyze a single corrosion control treatment—the Carus 8600 blended poly phosphate blend—at a single dose.[24] Nonetheless, EGLE staff deemed that the corrosion control study plan was acceptable.[25]

In summary, immediately following Benton Harbor's lead action level exceedance, EGLE did not formally designate the Carus 8600 blended polyphosphate inhibitor as optimal corrosion control treatment, nor did it require a corrosion control study that was compliant with the federal and Michigan lead and copper rule. It also did not establish water quality parameters. All of these are requirements of the federal and Michigan lead and copper rule. Instead, it approved a permit that allowed Benton Harbor to begin to introduce a polyphosphate blend without prior study and required minimal follow-up analysis to assess the effectiveness of the inhibitor after it was introduced.

Despite these efforts, Benton Harbor exceeded the lead action level in the January to June 2019 sampling period. Its 90th percentile for this sampling period was 27 parts per billion with a range of results from 0 to 59 parts per billion.[26]

C. July - December 2019 Sampling Period: High lead levels continue in spite of corrosion control treatment

In November of 2019, the Great Lakes Environmental Law Center sent a letter to EGLE expressing concerns regarding corrosion control in Benton Harbor. The letter raised three specific issues: (1) Elhorn and EGLE did not follow EPA guidance in selecting the Carus 8600 inhibitor as corrosion control; (2) the corrosion control treatment plan and study proposal provided by Elhorn did not comply with the requirements of the federal or Michigan LCR, and; (3) according to EPA guidance, utilizing coupon test racks to determine the efficacy of the Carus 8600 inhibitor would be insufficient for predicting the concentration of lead in drinking water.[27] In its response, EGLE stated that it made the determination to approve the use of the Carus 8600 inhibitor with consultation from Benton Harbor, the Carus Corporation, Elhorn Engineering, and EPA Region 5, and that the initial coupon study results showed the inhibitor was "effectively reducing corrosion rates."[28]

In reality, Benton Harbor's water system not only continued to exceed the lead action level in the July to December 2019 sampling period, but its 90th percentile had increased. Its

---

[24] *Id*.
[25] Email from Ernest Sarkipato, EGLE Surface Water Treatment Specialist to Mike O'Malley, Benton Harbor Drinking Water Superintendent (April 30, 2019), (attached as Exhibit 11), *available at* https://drive.google.com/file/d/1vYM2D1yxx_Zu4fLT7epgM7QTAK161wAT/view?usp=sharing.
[26] Letter from Jeni Bolt and Brandon Onan, Michigan Department of Environment, Great Lakes, and Energy, to Darwin Watson, City of Benton Harbor, Re: Lead and Copper Monitoring – Action Level (AL) Exceedance (July 24, 2019), (attached as Exhibit 12), *available at* https://drive.google.com/file/d/12OMWdIpRHVF68ngBw6ljP25UOTqBPusu/view?usp=sharing.
[27] Letter from Great Lakes Environmental Law Center to Eric Oswald, Drinking Water and Environmental Health Division Director (Nov. 6, 2019), (attached as Exhibit 13), *available at* https://drive.google.com/file/d/1jp4ut6cl3nWEPLguUtHVEK1p4A_sCcuG/view?usp=sharing.
[28] Letter from Eric Oswald to Nick Leonard, 2 (Nov. 26, 2019), (attached as Exhibit 14), *available at* https://drive.google.com/file/d/1uatPdd9bSq-bGQ5dCOyqDLNLtgA9ofC0/view?usp=sharing.

90th percentile for this sampling period was 32 parts per billion, up from 27 parts per billion in the January to June 2019 sampling period.[29] The range of reported samples was from 0 to 72 parts per billion.[30]

D. January - June 2020 Sampling Period: EGLE Requires Another Corrosion Control Study and Treatment Changes

In early February, EGLE staff began to internally circulate a draft letter to be sent to Benton Harbor requiring additional measures to control the ongoing, high levels of lead contamination in the drinking water system. Sent to Benton Harbor on February 13, 2020, it stated that the Carus 8600 inhibitor "is not achieving desired results quickly enough."[31] It required Benton Harbor to change its blended phosphate chemical from the 70/30 ortho/polyphosphate blend it had been using to a product with a minimum of 90% orthophosphate no later than February 28, 2020.[32] It instructed Benton Harbor to increase its treatment rate such that a minimum of 3.0 mg/L orthophosphate residual is maintained throughout the distribution system.[33] Lastly, the letter instructed Benton Harbor to have a third-party consultant submit a corrosion control study proposal in compliance with the lead and copper rule within six months of the treatment change to identify the optimum corrosion control treatment for Benton Harbor.[34]

Initially, while the letter described in the paragraph above was still in draft form, Bob London, an EGLE Surface Water Treatment Specialist, noted that while the letter directed Benton Harbor to conduct a corrosion control study in compliance with the Michigan lead and copper rule, it also steered Benton Harbor towards the use of a phosphate-based inhibitor. Mr. London stated that the lead and copper rule requires a corrosion control study to investigate a number of corrosion control techniques, and that EGLE should not bias the direction of the study and should require full compliance with the lead and copper rule.[35] In response, Brandon Onan, the Lead and Copper Unit Supervisor, stated that he is "not comfortable with entertaining the idea of pH/alkalinity adjustments as an options [sic] for CCT" in light of Benton Harbor's "TMF" issues.[36]

---

[29] Lead and Copper Monitoring – Action Level (AL) Exceedance (Jan. 16, 2020), (attached as Exhibit 15), *available at* https://drive.google.com/file/d/1dWnbv7XQT8uPgDH8VTUcrU9XsLFqgcxi/view?usp=sharing.
[30] *Id*.
[31] Letter from Brandon Onan, EGLE Supervisor of Lead and Copper Unit, to Ellis Mitchell, Benton Harbor City Manager, 1 (Feb. 13, 2020), (attached as Exhibit 16), *available at* https://drive.google.com/file/d/1udLZOI48XpJSnqbxfnJ7e5KVNfzSldQ-/view?usp=sharing.
[32] *Id*. at 1-2.
[33] *Id*. at 1.
[34] *Id*. at 2.
[35] Email from Bob London, EGLE Surface Water Treatment Specialist, to EGLE Staff (Feb. 3, 2020), (attached as Exhibit 17), *available at* https://drive.google.com/file/d/1jtvC5sjx0pclqdJi83JmkW8u7hXKTLaN/view?usp=sharing.
[36] *Id*.

On May 19, 2020, Benton Harbor provided a corrosion control study proposal. The study, which was to be performed by Elhorn Engineering, was to rely on loop tests from materials taken from the Benton Harbor water supply and would cost $1,600.[37]

In an email on April 17, 2020, EGLE staff stated that while Benton Harbor had changed its blended polyphosphate chemical treatment in compliance with the February 13 letter, the distribution residual had not yet reached 3.0 mg/L.[38] Additionally, in a letter dated June 17, 2020, EGLE noted numerous concerns regarding Benton Harbor's corrosion control study it proposed on May 19th.[39]

Benton Harbor again exceeded the lead action level in the January to June 2020 sampling period. Its reported 90th percentile for this sampling period was 23 parts per billion with a reported range of results from 0 to 440 parts per billion.[40]

E. July - December 2020 Sampling Period: Benton Harbor Submits Another Corrosion Control Study Proposal

A document dated July 28, 2020 seemingly provides another corrosion control study proposed by Benton Harbor to EGLE.[41] It states the study will utilize lead and galvanized service line material from Benton Harbor's distribution system as well as new copper in order to replicate lead service line replacement activities, that Benton Harbor staff shall provide daily oversight of the study, that it will be run for a minimum of 12 months, and will study the following products/feed rates:

- SK-7661 Blended 10% polyphosphate/90% orthophosphate at current feed rate (3.0 mg/L)
- SK-7661 Blended 10% polyphosphate/90% orthophosphate at feed rate of 1.0-1.5 ppm PO4
- Carus 8600 Blend 30% polyphosphate/70% orthophosphate at 1.0-1.5 ppm PO4
- Carus 8600 Blend 30% polyphosphate/70% orthophosphate at 2.5-3.0 ppm PO4
- Carus 4105 36% phosphoric acid at 2.5-3.0 ppm PO4[42]

---

[37] Letter from Mike O'Malley, Benton Harbor Drinking Water Superintendent, to EGLE Staff (May 19, 2020), (attached as Exhibit 18), *available at* https://drive.google.com/file/d/1SwC3ihppjjAFqdR7rGMaQdkItNL43Qyj/view?usp=sharing.

[38] Email from Ernie Sarkipato, EGLE Surface Water Treatment Specialist, to Ellis Mitchell, Benton Harbor City Manager (Apr. 17, 2020), (attached as Exhibit 19), available at https://drive.google.com/file/d/1b8nv0A5WczxmFtJf_yZVsn3AzMcguG3S/view?usp=sharing

[39] Letter from Ernie Sarkipato, EGLE Surface Water Treatment Specialist, to Mike O'Malley, Benton Harbor Drinking Water Superintendent (June 17, 2020), (attached as Exhibit 20), *available at* https://drive.google.com/file/d/1WDLP2WUiphDj7HccUn396Ckpg0MUj8UG/view?usp=sharing.

[40] Letter from Jeni Bolt and Brandon Onan, Michigan Department of Environment, Great Lakes, and Energy, to Ellis Mitchell, City of Benton Harbor, Re: Lead and Copper Monitoring – Action Level (AL) Exceedance (July 15, 2020), (attached as Exhibit 21), available at https://drive.google.com/file/d/1YncWJQr0n8griDIztiqIjG6Qp9nGj107/view?usp=sharing.

[41] *City of Benton Harbor Corrosion Study Plan* (July 28, 2020), (available as Exhibit 22), *available at* https://drive.google.com/file/d/1OW32gEanojNF-1PqS-VLm54UKLCGyryU/view?usp=sharing.

[42] *Id*.

On August 7, 2020, Benton Harbor and EGLE agreed to amend the original administrative consent order. The amended order required Benton Harbor to have a qualified third-party consultant submit a corrosion control optimization study to EGLE by September 30, 2020.[43]

Benton Harbor again exceeded the lead action level in the July to December 2020 sampling period. Its reported 90th percentile for this sampling period was 24 parts per billion with a reported range of results from 0 to 240 parts per billion.[44] In addition, on November 6, 2020 Benton Harbor issued a boil water advisory due to a chemical feed interruption in the treatment process.[45]

F. January - June 2021 Sampling Period: Benton Harbor Releases a Request for Proposals for a Corrosion Control Study that is Fully Compliant with the Lead and Copper Rule

At some point in early 2021, it became apparent that Benton Harbor would be issuing a request for proposals for a corrosion control study to determine the optimal corrosion control treatment for its water system. An email from David Koch of Black and Veatch expressed concerns regarding the request for proposals.[46] Specifically, he noted that the revised federal lead and copper rule would require corrosion control studies for systems with lead service lines to include pipe loop testing with harvested lead service lines, and that such tests would be the best means of addressing Benton Harbor's lead issues.[47] He stated that a study involving pipe loop tests could not be performed on a budget of $50,000, which was the apparent budget for the study provided by the proposal.[48]

On April 19, 2021, Benton Harbor formally issued its request for proposals. The proposal noted that the study is expected to be completed within 18 months of the award and that it must comply with the requirements for corrosion control studies described in Mich. Admin. Code R.

---

[43] State of Michigan Department of Environment, Great Lakes, and Energy, Drinking Water and Environmental Health Division, *First Amended Administrative Consent Order* (Aug. 7, 2020), (attached as Exhibit 23), *available at* https://drive.google.com/file/d/1CdYXFQwXkoYF1FxiW-OfoPPIfDB5omkx/view?usp=sharing.

[44] Letter from Jeni Bolt and Brandon Onan, Michigan Department of Environment, Great Lakes, and Energy, to Ellis Mitchell, City of Benton Harbor, Re: Lead and Copper Monitoring – Action Level (AL) Exceedance (Feb. 4, 2021), (attached as Exhibit 24), *available at* https://drive.google.com/file/d/1yBOFxpWnoIc3vSdsRKor5h009EmyPf-0/view?usp=sharing.

[45] Joel Bissell, *Benton Harbor residents advised to boil water due to possible contamination,* MLive, Nov. 6, 2020, *available at* https://www.mlive.com/news/kalamazoo/2020/11/benton-harbor-residents-advised-to-boil-water-due-to-possible-contamination.html

[46] Email from David Koch, Black & Veatch, to Ernest Sarkipato, EGLE Surface Water Treatment Specialist (Mar. 24, 2021), (attached as Exhibit 25), *available at* https://drive.google.com/file/d/1MtVV4OKc_GXjD1LIfIvmgOMRL2_2mvrP/view?usp=sharing.

[47] *Id*.

[48] *Id*.

325.10604f(3)(c).[49] Benton Harbor received three proposals from Cornwell Engineering, Metro Consulting Associates, and Black & Veatch.[50] A letter dated June 28, 2021 from Abonmarche to the Benton Harbor city manager noted that a team had reviewed the three proposals and made a recommendation to select the proposal from Cornwell Engineering.[51]

Benton Harbor again exceeded the lead action level in the January to June 2021 sampling period. Its reported 90th percentile for this sampling period was 24 parts per billion with a reported range of results from 0 to 889 parts per billion.[52] On May 18, 2021, Benton Harbor issued another boil water advisory due to a chemical feed interruption in the water treatment process.[53]

IV. Lead in the Benton Harbor public water system presents an imminent and substantial endangerment to public health

A. High levels of lead are present and are likely to continue to enter Benton harbor drinking water

Since originally discovered in 2018, Benton Harbor has continuously detected levels of lead in drinking water well above the federal action level of 15 parts per billion in every sampling period.

//

//

//

//

//

[49] City of Benton Harbor Request for Proposal, Benton Harbor Corrosion Optimization Study (April 19, 2021), (attached as Exhibit 26), *available at* https://drive.google.com/file/d/1HU6CtFIY2G-HhjHcYfUdYPmN0Rpc8Pjt/view?usp=sharing.

[50] Email from Jason Marquardt, Abonmarche on behalf of Benton Harbor, to Benton Harbor and EGLE Staff (May 13, 2021), (attached as Exhibit 27), *available at* https://drive.google.com/file/d/18k9mXVDG5AkQ_iRxy94Ba_Xc8HkTxuk3/view?usp=sharing.

[51] Letter from Jason Marquardt, Abonmarche, to Ellis Mitchell, Benton Harbor City Manager (Jun. 28, 2021), (attached as Exhibit 28), *available at* https://drive.google.com/file/d/1CC6_HzaW0quhtROrCmXD_IAeFmovhlq_/view?usp=sharing.

[52] Letter from Jeni Bolt and Brandon Onan, Michigan Department of Environment, Great Lakes, and Energy, to Ellis Mitchell, City of Benton Harbor, Re: Lead and Copper Monitoring – Action Level (AL) Exceedance (Aug. 3, 2021), (attached as Exhibit 29), *available at* https://drive.google.com/file/d/1HZfC-97KsJUQveQl0HZsxs97Ps1I90aH/view?usp=sharing.

[53] Benton-Michiana Spirit News, Attention: Boil Your Water Before Using, May 18, 2021, *available at* https://bentonspiritnews.com/attention-boil-your-water-before-using-p6704-164.htm

Table 1 - Reported Results of Lead Tap Samples in Benton Harbor by Sampling Period			
Sampling Period	**90th Percentile (in parts per billion)**	**Number of Sites Above Action Level**	**Range of Sample Results (in parts per billion)**
6/1/2018 – 9/30/2018	22	8	0 - 60
1/1/2019 - 6/30/2019	27	12	0 - 59
7/1/2019 - 12/31/2019	32	10	0 - 72
1/1/2020 - 6/30/2020	23	9	0 - 440
7/1/2020 - 12/31/2020	24	11	0 - 240
1/1/2021 - 6/30/2021	24	11	0 - 889

Notably, high levels of lead in drinking water have continuously been present in the water system despite Benton Harbor introducing the Carus 8600 polyphosphate inhibitor in March 2019 and then changing its inhibitor and increasing the dosage in February 2020. While Benton Harbor may have selected a contractor to perform a corrosion control study by the date of this Petition, doubts have been expressed about whether or not the $50,000 budget for that study is adequate to confidently determine what the optimal corrosion control treatment for the water system is.[54] Even if the study is able to confidently determine optimal corrosion control treatment, it may take as many as 18 months to complete. Once the study is completed, EGLE will need time to review the study and make a determination regarding its optimal corrosion control treatment designation. Benton Harbor would then be required to install the control treatment within 12 months of EGLE's designation.[55] Assuming the corrosion control study began on August 1, 2021, the corrosion control study may not be completed until the end of January 2023. Subsequently, EGLE will be required to designate optimal corrosion control treatment by July 2023 and Benton Harbor will be required to install the designated treatment no later than July 2024. And of course, lead levels may not be substantially reduced for some time after corrosion control is installed. As such, under the timeline envisioned by EGLE, Benton Harbor residents are likely to live with elevated lead contamination in their tap water for over six years.

[54] Email from David Koch, Black & Veatch, to Ernest Sarkipato, EGLE Surface Water Treatment Specialist (Mar. 24, 2021), (attached as Exhibit 25).
[55] Mich. Admin. Code R, 325.10604f(2)(e)(iv).

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

The endangerment to Benton Harbor residents from lead in drinking water is both "imminent" and "substantial."[56] The endangerment to residents' health is imminent because the threat "is present *now*."[57] Lead service lines are pervasive throughout Benton Harbor. For the past three years, both the City of Benton Harbor and EGLE have been unable to identify an adequate solution to effectively minimize lead contamination in the water system. Instead, as shown in Table 1 above, the 90th percentile of lead tap samples for the most recent sampling period was *higher* than the 90th percentile that first exceeded the action level in 2018. There is also no reasonable assurance that lead levels will decrease anytime in the near future. EGLE has required Benton Harbor to conduct a corrosion control study that is compliant with the lead and copper rule. However, as discussed in more detail in section V, the process for Benton Harbor to complete the study, for EGLE to review the study and designate optimal corrosion control treatment, and for Benton Harbor to install the designated treatment could take up to 36 months per the Michigan lead and copper rule.

The situation in Benton Harbor is at least as extreme, and could be more extreme, than the case of Clarksburg, West Virginia, where EPA recently issued an Emergency Administrative Order on July 14, 2021 under section 1431 of the Safe Drinking Water Act. In the Clarksburg case, EPA noted water sampling at about 3 sites showed very high lead levels and a lack of data on how widespread lead service lines are in the community. The Agency appropriately found that "[t]aken together, the known presence of lead in samples and in the lead service lines and the unknown extent of lead service lines within the system that could be impacting other residences presents an imminent and substantial endangerment to the health of all consumers of water provided by the System."[58] Benton Harbor is the only water system in Michigan to have 6 consecutive lead action level exceedances according to data beginning in 2011. There are at least 61 samples to date which are well in excess of the EPA lead action level, including some over 100 ppb, and there are hundreds of known or suspected lead service lines. We note that Clarksburg has a 92 percent white population,[59] while Benton Harbor has a population of about 90 percent people of color.[60]

The seriousness of the potential harms from lead exposure renders the endangerment "substantial" for purposes of the Safe Drinking Water Act, 42 U.S.C. § 300i and 42 U.S.C. § 300j-1(b). The serious effects of lead exposure have been well documented.[61] Effects of lead exposure are particularly serious for children. As noted by the Centers for Disease Control and

---

[56] 42 U.S.C. § 300i; 42 U.S.C. § 300j-1(b).
[57] *Meghrig v. KFC Western, Inc.*, 516 U.S. 479, 486 (1996) (interpreting substantial-and-imminent-endangerment provision in RCRA).
[58] EPA Region III, Emergency Administrative Order. In the Matter of Clarksburg Water Board, Respondent. Docket No. CWA-03-2021-0110DS, July 14, 2021, paragraph 31 (attached as Exhibit 47).
[59] U.S. Census Bureau, "Quick Facts: Clarksburg, WV,"
https://www.census.gov/quickfacts/clarksburgcitywestvirginia
[60] U.S. Census Bureau, "Quick Facts: Benton Harbor, MI."
https://www.census.gov/quickfacts/fact/table/bentonharborcitymichigan/PST045219
[61] 80 Fed. Reg. 278, 290 (Jan. 5, 2015) ("Lead has been demonstrated to exert a broad array of deleterious effects on multiple organ systems.").

Prevention, "[e]ven low levels of lead in blood have been shown to affect IQ, ability to pay attention, and academic achievement" in a manner that is irreversible.[62] The scientific community has not identified *any* threshold of lead in blood below which there are no adverse health effects.[63]

Indeed, EPA itself recently noted when issuing its Emergency Administrative Order under SDWA section 1431 in Clarksburg, West Virginia that excessive lead in drinking water poses an imminent and substantial endangerment. The agency pointed out,

> EPA has established a Maximum Contaminant Level Goal (MCLG) of zero for lead because: (1) there is no clear threshold for some noncarcinogenic lead health effects; and (2) a substantial portion of the sensitive population already exceeds acceptable blood lead levels. (56 Fed. Reg. 26467).
>
> Health effects associated with exposure to inorganic lead and compounds include, but are not limited to: neurotoxicity, developmental delays, hypertension, impaired hearing acuity, impaired hemoglobin synthesis, and male reproductive impairment. Importantly, many of lead's health effects may occur without overt signs of toxicity. Lead has particularly significant effects in children, well before the usual term of chronic exposure can take place. (https://iris.epa.gov/static/pdfs/0277_summary.pdf -- IRIS Chemical Assessment Summary for Lead).[64]

Increased lead exposure from drinking water is a "substantial" endangerment because drinking water can make up 20 percent or more of a person's total exposure to lead.[65] For infants whose diet consists of baby formula made with tap water, lead in drinking water can make up 40 to 60 percent of total lead exposure.[66] In drinking water systems where lead levels exceed the lead action level, such as Benton Harbor, researchers have identified a correlating increase in the rate of individuals with elevated blood lead levels.[67] However, consuming water with lead contamination at levels below the federal lead action level may still cause adverse health effects. This is particularly true for children. The EPA has concluded that even low levels of lead in the blood of children can result in behavior and learning problems, lower IQ and hyperactivity, slowed growth, hearing problems, and anemia.[68]

There are a number of reasons to be concerned about the health impacts associated with the long-term and continuing exposure of Benton Harbor residents to high levels of lead in

---

[62] Centers for Disease Control and Prevention, *Blood Lead Levels in Children*, https://www.cdc.gov/nceh/lead/prevention/blood-lead-levels.htm (last viewed April 5, 2021) (attached as Exhibit 30).
[63] *Id*.
[64] EPA Clarksburg AO, *supra* note 54, paragraphs 21-22 (paragraph numbers omitted).
[65] U.S. EPA, Basic Information about Lead in Drinking Water, https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water (last viewed Aug. 24, 2021) (attached as Exhibit 31).
[66] *Id*.
[67] Ronnie Levin, et al., *Lead Exposures in U.S. Children, 2008: Implications for Prevention,* 116(10) Environ. Health Perspect. 1285 (2008), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2569084/ (attached as Exhibit 32).
[68] U.S. EPA, *Basic Information about Lead in Drinking Water*, https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water (last visited Aug. 24, 2021) (attached as Exhibit 31).

drinking water. As noted in Table 1, Benton Harbor's water system significantly exceeded the lead action level in each of the previous six sampling periods dating back to the summer of 2018. Further, the maximum levels of lead detected through tap monitoring have been disturbingly high. In the most recent sampling period, one tap sample found lead at a concentration of 889 parts per billion, nearly 60 times the federal action level. The available documents indicate that lead contamination in Benton Harbor's drinking water is a persistent, widespread, and severe public health crisis that rises to the level of "substantial" endangerment.

While the presence of the high levels of lead found in the Benton Harbor water system since the summer of 2018 would amount to a "substantial" endangerment in any community, Benton Harbor's status as an environmental justice community is a compounding factor that increases the severity of this present public health crisis. This is particularly true for children. One study has noted that "[c]hildhood lead exposure is a reflection of community predictors, such as poverty rates and age of housing."[69]

Regarding poverty rates, it has been found that children from low-income families are at greater risk of the negative health effects associated with lead exposure, such as lower cognitive test scores, smaller cortical volumes, and smaller cortical surface areas, when compared to children from high-income families.[70] Benton Harbor's poverty rate is 45%, making a substantial portion of its population particularly vulnerable to the negative health effects associated with lead exposure. Regarding age of housing, lead paint was not banned in the United States until 1978. People living in housing built before this date are at increased risk of lead exposure from deteriorating lead paint. Of the 4,143 occupied housing units in Benton Harbor, approximately 71% were constructed in 1979 or earlier.[71] Housing built before 1960 has "five to eight times the prevalence of hazards compared with units built between 1960 and 1978."[72]Approximately 50% of Benton Harbor's housing was constructed in 1959 or earlier.[73] Housing and income are interconnected factors regarding the prevalence of lead-based paint hazards. Low-income households are generally subjected to higher rates of lead-based paint hazards compared to middle and upper income households.[74] Rental units also have a higher prevalence of lead-based paint hazards compared to owner-occupied units; 64% of Benton Harbor's housing units are renter-occupied.[75]

---

[69] Andrew Marshall, et al., *Association of lead-exposure risk and family income with childhood brain outcomes*, 26 Nature Medicine 91 (Jan. 2020) (attached as Exhibit 33).
[70] *Id*.
[71] United States Census Bureau, *Year Structure Built, Table B25034, Benton Harbor, Michigan, American Community Survey 5-Year Estimates 2015-2019* (attached as Exhibit 34).
[72] David E. Jacobs, et al., *The Prevalence of Lead-Based Paint Hazards in U.S. Housing*, 110 (10) Environmental Health Perspectives A599, A601-A602 (Oct. 2002), (attached as Exhibit 35), *available at* https://ehp.niehs.nih.gov/doi/pdf/10.1289/ehp.021100599.
[73] United States Census Bureau, *Year Structure Built, Table B25034, Benton Harbor, Michigan* (attached as Exhibit 34).
[74] David E. Jacobs, et al., *The Prevalence of Lead-Based Paint Hazards in U.S. Housing*, 110 (10) Environmental Health Perspectives A599, A601-A602 (Oct. 2002), (attached as Exhibit 35), *available at* https://ehp.niehs.nih.gov/doi/pdf/10.1289/ehp.021100599.
[75] United States Census Bureau, *Selected Housing Characteristics, Table DP04, Benton Harbor, Michigan, American Community Survey 5-Year Estimates 2015-2019,* (attached as Exhibit 36); David E. Jacobs, et al., *The Prevalence of Lead-Based Paint Hazards in U.S. Housing*, 110 (10) Environmental Health Perspectives A599, A602 (Oct. 2002), (attached as Exhibit 35), *available at* https://ehp.niehs.nih.gov/doi/pdf/10.1289/ehp.021100599.

Benton Harbor's water quality and public health concerns are not limited to lead in paint and water. In July 2021, Benton Harbor initiated an elevated water storage tank rehabilitation project that included sandblasting the tank surface, with encapsulation to prevent particulate matter release in the community. The need for tank rehabilitation and replacement was identified in a 2008 inspection, and the rehabilitation was not initiated until 13 years later. The inspection report is clear about the need to replace the tank. Not only is Benton Harbor sinking its very limited funding into an outdated tank that is likely contributing to ongoing poor water quality in the community, these funds are no longer available for the tank replacement that was already needed years ago. Although EGLE states that any lead paint on the tank surface was remediated in the 1990s and that current air quality monitoring indicates no concerns of lead release from the sandblasting work, no data have been provided to substantiate these statements.

Additionally, Benton Harbor's public water system has experienced a high amount of turnover among key management personnel. Four different individuals have served as the Operator-In-Charge during the past year. The Operator-In-Charge as of June only holds the F-1 certification, and does not hold the necessary certification to operate Benton Harbor's distribution system. The lack of expertise, training, mentorship, and longevity means that Benton Harbor must overcome even greater barriers than most water utilities as it works to address the lead emergency and provide for basic operations and water quality maintenance.

In summary, Benton Harbor community members are not only living with high levels of lead in their drinking water. They have also very likely experienced high levels of lead exposure from lead paint in older, primarily renter-occupied housing units, and lead from the water tower project. The persistent discovery of high levels of lead in their drinking water adds another layer of lead exposure. Further, Benton Harbor's low-income residents, which make up 45% of the population, may be uniquely vulnerable to the negative health effects associated with lead exposure.

Benton Harbor is not just a low-income community. It is a majority Black city, with 90% of its residents being people of color. The story of Benton Harbor's Black population is a familiar one throughout the Midwest. In the 1960's, as Benton Harbor's Black population rapidly grew, its White population declined just as rapidly. In that decade, Benton Harbor's White population decreased from 14,290 in 1960 to 6,707 in 1970, a more than 50 percent decrease; during the same time, Benton Harbor's Black population increased from 4,846 to 9,774.[76]

Black residents coming to Benton Harbor faced discrimination in multiple facets of life. In housing, the Benton Harbor Housing Commission segregated public housing by operating one housing project for Black residents and another for White residents. It also refused admission to Black veterans to its veterans housing project solely on the basis of race.[77] Racial segregation in schools was also very prevalent throughout Benton Harbor and the surrounding region. In 1952,

[76] Tiffany Anne Loftus Butzbaugh, *A Socio-Historical Analysis of the Benton Harbor, Michigan Desegregation Case between 1967 and 1981*, 60 (Aug 2003), (attached as Exhibit 37), *available at* https://scholarworks.wmich.edu/cgi/viewcontent.cgi?article=2215&context=dissertations

[77] *Berry v. School Dist.,* 442 F. Supp. 1280, fn. 32 (1977) (attached as Exhibit 38).

65 Black students were refused entry to two primarily White public schools.[78] In 1960, a 200 unit low-rent housing project in the Bard School District was approved despite the fact that the Bard School was already significantly overcrowded.[79]

In response to pervasive discrimination in public schools, in 1967 a group of Black Benton Harbor children brought a class action lawsuit against the Benton Harbor Area School District alleging that there right to equal protection under the 14th Amendment of the United States Constitution had been violated by a series of decisions by the school district meant to segregate students based on their race. The court found that the school district was guilty of intentionally acting to segregate public schools on the basis of race through a number of actions. The District assigned Black teachers to identifiably Black schools and allowed White teachers to freely transfer out of such schools. As a result, Black students were taught by a higher percentage of teachers without degrees or without prior teaching experience. Teachers in Black schools were also paid "significantly lower" salaries than teachers in White schools.[80] Black schools also suffered from overcrowding, severe physical dilapidation, and a complete lack of library facilities.[81]

Based on these actions, a federal court stated that it was "left with the firm impression that there was pervasive and purposeful segregation" in the Benton Harbor Area School District and its predecessors.[82] As such, the court found the Benton Harbor Area School District guilty of "acts of de jure segregation" concluding that there were actions by the school district that "cannot be explained except by ascribing to them a deliberate, conscious intent on the part of the Board to segregate public school pupils on the basis of race."[83] The court also concluded that this discrimination "set the stage for the exodus of White families from the district to the extent that the district is nearly 75 percent Black at this time."[84] In the end, the court concurred with the education director of the Southern Christian Leadership Conference in that the racial discrimination and segregation in Benton Harbor's schools was "only paralleled by some school disctricts...in...Southern communities, which are looked upon as being depressing for black children."

Benton Harbor did not become a majority Black city by happenstance. It is a product of longstanding, pervasive, and intentional racial discrimination and segregation meant to restrict where Black residents could live and go to school. This racial discrimination has had numerous cascading effects, both for Benton Harbor as a community and for its residents. Through government action, Benton Harbor's Black residents were forced into segregated, dilapidated housing and into overcrowded schools. The history of segregation in the Benton Harbor region persists to this day. The Niles-Benton Harbor metro area has been ranked as the fifth most

[78] *Id*. at 1298.
[79] *Id*.
[80] *Id*. at 1302.
[81] *Id*. at 1300-1307.
[82] *Id*. at 1299.
[83] *Id*. at 1335.
[84] *Id*.

segregated metro area in the country.[85] The region continues to have one of most segregated public school systems in the country.[86] It has one of the worst disparities regarding high school attainment, with an attainment rate of 92.1% for majority-White neighborhoods and only 72.4% for majority-Black neighborhoods.

Now, the history of racial discrimination and segregation in the Benton Harbor metro-area is manifesting itself with its majority Black population being subjected to high levels of lead in drinking water for a prolonged period of time. At least partially due to historical race-based discrimination and segregation, Black and Hispanic neighborhoods such as those in Benton Harbor and throughout the United States have exhibited "extraordinarily high rates of lead toxicity compared to White neighborhoods."[87] Such lead toxicity is "a source of ecological inequity by race and a pathway through which racial inequity literally gets into the body."[88]

Benton Harbor's status as an environmental justice community is not simply a fact to be noted. It means its residents, many of whom are people of color and lower income, are uniquely at risk of being exposed to high levels of lead in their neighborhoods as well as uniquely vulnerable to the serious health consequences of lead exposure. The elevated levels of lead exposure and health vulnerabilities for people of color are not accidental. Instead, they are present byproducts of intentional racial discrimination and segregation that persist to this day. Given the high levels of lead that continue to exist in Benton Harbor's drinking water and Benton Harbor's status as an environmental justice community, the Petitioners believe there is more than ample evidence for the EPA to conclude that the lead present in the City's drinking water presents an imminent and substantial endangerment to the health of its residents. The predominantly Black Benton Harbor residents deserve at least as much EPA protection from this lead threat in their tap water as do the predominantly white residents of Clarksburg, West Virginia.

V. EGLE and Benton Harbor's actions to address the high lead levels in drinking water have been grossly inadequate and have been in violation of the federal and Michigan lead and copper rule

Federal emergency action is necessary to protect Benton Harbor residents from imminent and substantial endangerment because neither the City nor EGLE have adequately addressed the danger to residents from lead in their drinking water. What actions the City and EGLE have taken to date have been ineffective. Further, both Benton Harbor and EGLE have failed to comply with requirements of both the federal and state lead and copper rule, including the

---

[85] Evan Comen, *Detroit, Chicago, Memphis: The 25 most segregated cities in America*, USA Today (July 20, 2019), (attached as Exhibit 39), *available at* https://www.usatoday.com/story/money/2019/07/20/detroit-chicago-memphis-most-segregated-cities-america-housing-policy/39703787/

[86] *Id*.

[87] Robert J. Sampson and Alix S. Winter, *The Racial Ecology of Lead Poisoning: Toxic Inequality in Chicago Neighborhoods, 1995-2013*, Du Bois Review: Social Science Research on Race, 19 (Winter 2016), (attached as Appendix 40), *available at* https://scholar.harvard.edu/files/alixwinter/files/sampson_winter_2016.pdf.

[88] *Id*.

requirement to implement the corrosion control treatment steps, the lead service line replacement requirement, and the tap monitoring requirement.

A. Corrosion Control Treatment Steps

As a medium-sized water system with no corrosion control prior to its first lead action level exceedance, Benton Harbor's lead action level exceedance triggered the corrosion control treatment steps described in Michigan's lead and copper rule, Mich. Admin. Code, R 325.10604f(2)(e). The corrosion control treatment steps establish actions that both Benton Harbor and EGLE must take, as well as specific deadlines to ensure lead contamination in the drinking water system is reduced in a timely fashion. Notably, Michigan amended its lead and copper rule, including the corrosion control treatment step provisions, to require water systems to implement the steps on a faster timeline than required by the federal lead and copper rule. Table 2 describes the corrosion control steps as well as the deadlines for each step, as provided in both the federal and Michigan lead and copper rule.

Table 2 - Corrosion Control Treatment Steps

Michigan LCR		**Federal LCR (2020)**	
Step 1 - Supply shall recommend optimal corrosion control treatment Deadline - Within 6 months of end of monitoring period with LALE (6/30/19)		Step 1 - Supply shall recommend optimal corrosion control treatment Deadline - Within 6 months of end of monitoring period with LALE (6/30/19)	
Step 2a. EGLE may require system to perform corrosion control study Deadline: Within 12 months of end of monitoring period with LALE (1/1/20)	Step 2b. EGLE may designate optimal corrosion control treatment Deadline: Within 12 months of end of monitoring period with LALE exceedance (1/1/20)	Step 2a. EGLE may require system to perform corrosion control study Deadline: Within 12 months of end of monitoring period with LALE (1/1/20)	Step 2b. EGLE may designate optimal corrosion control treatment Deadline: Within 18 months of end of monitoring period with LALE exceedance (6/30/20)
Step 3 - If required, water system must perform corrosion control study	Skip to Step 5	Step 3 - If required, water system must perform corrosion control study	Skip to Step 5

Deadline: Within 12 months Step 2a (1/1/21)		Deadline: Within 18 months Step 2a (6/30/21)	
Step 4 - EGLE shall designate optimal corrosion control treatment Deadline: Within 6 months of completion of study (6/30/21)		Step 4 - EGLE shall designate optimal corrosion control treatment Deadline: Within 6 months of completion of study (1/1/22)	
Step 5a - Supply shall install corrosion control treatment Deadline: Within 12 months after designation in step 4 (1/1/22)	Step 5b - Supply shall install corrosion control treatment Deadline: Within 12 months of designation in Step 2b (1/1/21)	Step 5a - Supply shall install corrosion control treatment Deadline: Within 24 months after designation in step 4 (1/1/24)	Step 5b - Supply shall install corrosion control treatment Deadline: Within 24 months of designation in Step 2b (6/30/22)
Step 6a - Supply shall complete follow up sampling Within 24 months after designation in Step 4 (1/1/23)	Step 6b - Supply shall complete follow up sampling Deadline: Within 24 months after designation in Step 2b (1/1/22)	Step 6a - Supply shall complete follow up sampling Within 36 months after designation in Step 4 (1/1/27)	Step 6b - Supply shall complete follow up sampling Deadline: Within 36 months after designation in Step 2b (6/30/25)
Step 7a - EGLE shall designate WQP for system Deadline: Within 6 months of completion of follow up sampling in 6a (6/30/23)	Step 7b - EGLE shall designate WQP for system Deadline: Within 6 months of completion of follow up sampling in 6b (6/30/22)	Step 7a - EGLE shall designate WQP for system Deadline: Within 6 months of completion of follow up sampling in 6a (6/30/27)	Step 7b - EGLE shall designate WQP for system Deadline: Within 6 months of completion of follow up sampling in 6b (1/1/26)

EGLE has not implemented the corrosion control steps in compliance with the deadlines required by Michigan's lead and copper rule and has made several decisions that go against EPA guidance.

EGLE impermissibly delayed requiring Benton Harbor to conduct a fully compliant corrosion control study. Michigan's corrosion control treatment steps gave EGLE two options: either require Benton Harbor to perform a corrosion control study or designate optimal corrosion control treatment for the water system.[89] The EPA has provided guidance to assist states in determining whether a corrosion control study is warranted or not. That guidance recommends that a state agency require all systems with lead service lines to conduct a corrosion control study.[90] If a corrosion control study is required, it must comply with the requirements described in Mich. Admin. Code R, 325.10604f(3)(c).[91]

In regards to Benton Harbor, EGLE neither designated optimal corrosion control treatment nor did it require a fully compliant corrosion control study. While EGLE did approve Benton Harbor to implement corrosion control treatment in February 2019, and later ordered Benton Harbor to change its corrosion control treatment in February 2020, there is no indication that these treatments were formally designated as the "optimal corrosion control treatment." Further, neither treatment was studied by EGLE or Benton Harbor before being introduced to the water system. This is in direct contravention with EPA guidance, which states that blended phosphates, such as that used in Benton Harbor's water system, "should be used with caution."[92] This is because the "lead corrosion scale may not be as robust as the scale created by orthophosphate and, thus, may be more susceptible to physical disturbances and low water use conditions."[93] As such, the EPA recommends a demonstration study, additional monitoring, or both for systems that recommend blended phosphates to control lead release.[94] These concerns were expressly raised by the Great Lakes Environmental Law Center in a November 2019 letter sent to EGLE.[95] In response, EGLE stated that monitoring data showed the blended phosphate was working to reduce lead contamination. In fact, the July to December 2019 sampling period had the highest 90th percentile for lead samples for any of Benton Harbor's sampling periods.

EGLE also did not require Benton Harbor to conduct a fully compliant corrosion control study until February 2020. In its February 13, 2020 letter, EGLE noted that Benton Harbor was required to have a third-party consultant submit a corrosion control study proposal in compliance with the LCR within 6 months of its change in treatment. However, Benton Harbor's submission of a corrosion control study has been delayed numerous times. A request for proposals for the study was not issued until April 2021 with the winning bid to be selected in the summer of 2021.

There are two concerning issues regarding Benton Harbor's corrosion control study. First, concerns have been raised about the scope of the corrosion control study. As noted by one

---

[89] Mich. Admin. Code R, 325.10604f(2)(e)(ii).
[90] U.S. EPA, Optimal Corrosion Control Treatment Evaluation Technical Recommendations for Primacy Agencies and Public Water Systems, 53 (March 2016), (attached as Exhibit 41), *available at* https://www.epa.gov/sites/default/files/2019-07/documents/occtmarch2016updated.pdf.
[91] Mich. Admin. Code R. 325.10604f(3)(b).
[92] U.S. EPA, Optimal Corrosion Control Treatment Evaluation Technical Recommendations for Primacy Agencies and Public Water Systems, 4 (March 2016), (attached as Exhibit 41), *available at* https://www.epa.gov/sites/default/files/2019-07/documents/occtmarch2016updated.pdf
[93] *Id*. at 48.
[94] *Id*. at 49.
[95] Letter from Great Lakes Environmental Law Center to Eric Oswald, Drinking Water and Environmental Health Division Director (Nov. 6, 2019), (attached as Exhibit 13), *available at* https://drive.google.com/file/d/1jp4ut6cl3nWEPLguUtHVEK1p4A_sCcuG/view?usp=sharing.

of the bidders, the $50,000 budget is not enough to perform an adequate study.[96] Second, EGLE impermissibly delayed requiring a fully compliant corrosion control study in violation of the Michigan and federal lead and copper rule. The corrosion control treatment steps each have specific deadlines associated with them to ensure that timely action is being taken to lower lead contamination in drinking water. Michigan's lead and copper rule, promulgated after the Flint water crisis, established shorter deadlines than those found in the federal lead and copper rule. Under the Michigan rule, Benton Harbor was to complete a fully compliant corrosion control study no later than January 1, 2021; under the federal rule, no later than June 30, 2021.[97] Instead, Benton Harbor is *just beginning* to conduct a corrosion control study that may not be in full compliance with the lead and copper rule in August 2021.[98] By the terms of the request for proposals, the study may take 18 months to complete.[99] EGLE will then have to review the results of the study and designate optimal corrosion control treatment.[100] Benton Harbor then would have 12 months to install the optimal corrosion control treatment.[101] Assuming there are no other delays, it is reasonable to expect Benton Harbor's high levels of lead contamination to continue for at least the next *36 months.*

EPA guidance recommends that water systems with lead service lines be required to complete a corrosion control study that is fully compliant with the lead and copper rule. Rather than do this, EGLE authorized Benton Harbor to introduce an untested blended polyphosphate inhibitor, which EPA guidance also cautions against. EGLE never designated optimal corrosion control treatment and only required a corrosion control study compliant with the Michigan lead and copper rule nearly three years after high levels of lead contamination were discovered. Per the plain language of Michigan's lead and copper rule and EPA guidance, EGLE should have quickly required Benton Harbor to conduct a fully compliant corrosion control study, and Benton Harbor should have completed that study by the beginning of 2021. Instead, Benton Harbor is just beginning its study, and its residents are enduring their fourth year of documented high lead contamination in their drinking water with no end in sight.

B. Lead Service Line Replacement Requirement

In addition, there are concerns that Benton Harbor has not complied with the requirement to annually replace 7 percent of its lead service lines. According to both the federal and

---

[96] *Supra,* note 46, Email from David Koch, Black & Veatch, to Ernest Sarkipato, EGLE Surface Water Treatment Specialist (Mar. 24, 2021), (attached as Exhibit 25).
[97] *Supra,* Table 2.
[98] In its February 13, 2020 letter to Ellis Mitchell, EGLE did require Benton Harbor to conduct a corrosion control study that is fully compliant with the Michigan lead and copper rule. *See,* Letter from Brandon Onan, EGLE Supervisor of Lead and Copper Unit, to Ellis Mitchell, Benton Harbor City Manager, 1 (Feb. 13, 2020) (attached as Exhibit 16). However, to date the Petitioners have not received a copy of the corrosion control study proposal that was selected by the City of Benton Harbor pursuant to its Request for Proposals issued April 19, 2021 and therefore we cannot assess whether or not any corrosion control study proposal that may have been selected complies with the federal and Michigan lead and copper rule.
[99] City of Benton Harbor Request for Proposal, Benton Harbor Corrosion Optimization Study (April 19, 2021) (attached as Exhibit 26).
[100] Mich. Admin. Code R, 325.10604f(2)(e)(iii).
[101]Mich. Admin. Code R, 325.10604f(2)(e)(iv).

Michigan lead and copper rule, a water system that has installed corrosion control and exceeds the lead action level must annually replace 7 percent of its lead service lines.[102] Benton Harbor installed corrosion control in March 2019 and then exceeded the lead action level during the sampling period concluding at the end of June 2019. Therefore, beginning on July 1, 2019, Benton Harbor was required to annually replace 7 percent of its lead service lines. For the purposes of this requirement, a lead service line is considered not only any lead service line, but also any galvanized service line previously connected to lead.[103] In its preliminary distribution system materials inventory, Benton Harbor has stated that its water system includes 3,011 service lines that are either known lead service lines, known galvanized lines previously connected to lead, or service lines of unknown material that likely contain lead.[104] To date, Benton Harbor has only replaced 186 service lines since its first lead action level exceedance.[105] Benton Harbor should be replacing 210 service lines *per year* in accordance with the federal and Michigan lead and copper rule meaning at least 420 lead service lines should have been replaced by July 1, 2021.

C. Tap Monitoring Requirement

In conducting tap sampling in the January - June 2021 monitoring period, Benton Harbor took actions that lowered the 90th percentile of lead samples collected during the sampling period. In general, EGLE has required Benton Harbor to collect tap samples from 60 sites per each sampling period since it first exceeded the lead action level. Benton Harbor finished collecting samples at 64 sites by May 18, 2021, meeting its regulatory required number of samples. The 90th percentile of data collected at the first 64 sample sites was 33 ppb. Samples were collected at an additional 14 sites after that date. When all 78 samples are used for the compliance calculation, the 90th percentile of sample results was 24 ppb. We have substantial questions about whether Benton Harbor's sampling, and the dilution of the initial compliance samples with these additional samples, comply with state and federal lead and copper rule monitoring requirements.

VI. EPA should take immediate action to address the public health emergency created by high lead levels in the Benton Harbor public water system.

On July 19, 2021 the Benton Harbor Community Water Council (BHCWC) reached out to the EPA Region 5 Acting Regional Administrator and other EPA staff seeking their help in solving Benton Harbor's immediate water infrastructure concerns and ongoing lead in drinking water emergency.[106] The Acting Regional Administrator and other Region 5 and EGLE staff met virtually with BHCWC and other petitioners on August 4, 2021 to hear the concerns about

[102] 40 C.F.R. 141.84(b) (2020).
[103] Mich. Admin. Code R. 325.10604f
[104] Michigan Department of Environment, Great Lakes, and Energy, *Michigan Service Line Materials Estimates Preliminary Distribution System Materials Inventories,* last updated Dec. 2020, (attached as Exhibit 1), *available at* https://www.michigan.gov/documents/egle/egle-dwehd-PDSMISummaryData_682673_7.pdf
[105] Email from Francie Kline, EGLE DWEHD FOIA Liaison, to Nicholas Leonard (Aug. 25, 2021), (attached as Exhibit 42).
[106] Letter from Benton Harbor Community Water Council to Eric Oswald, EGLE (Jul. 19, 2021), (attached as Exhibit 48).

EGLE's oversight of infrastructure programs and their response to the lead in drinking water emergency. On August 3, 2021, EGLE issued the City of Benton Harbor a notice that its water system had exceeded the lead action level for a sixth consecutive monitoring period with a 90th percentile value of 24 ppb.[107]

Despite the news about the sixth consecutive lead action level exceedance, neither EGLE staff nor Region 5 staff informed the August 4, 2021 meeting participants of this information. Further, Benton Harbor petitioners have been unable to determine how this notification was disseminated to residents and, more importantly, why there hasn't been an escalating emergency response from the city, the state, and EPA after more than three years of high lead levels found in the city's compliance sampling in a city where most residences are believed to have lead service lines. Instead, as lead levels have persisted in Benton Harbor, the urgency of the governments' response has decreased.

On August 9, 2021 BHCWC sent a follow-up letter to Region 5 reiterating the specific actions necessary to protect Benton Harbor residents that were discussed with the agency during the August 4 meeting.[108]

On August 30, nearly a month after the residents' meeting with EPA and EGLE and after two urgent follow-up emails from BHCWC, EPA responded to BHCWC's plea for emergency action. Shockingly, Region 5's response endorsed the State of Michigan's grossly inadequate response to this environmental justice community's ongoing exposure to high levels of lead in its drinking water. Instead of waging a public health campaign they waged a public relations campaign.[109]

Among other concerns with Region 5's response to BHCWC's letter was this statement:

> *Berrien County Health Department (BCHD), with funding from the Michigan Department of Health and Human Services, is leading the effort to distribute water filters in Benton Harbor. Based upon a conversation with Mr. Jeffrey Sims of BCHD, a sufficient supply of water filters and replacement cartridges are available at no cost to all residents of Benton Harbor. BCHD provides several options for obtaining water filters and replacement cartridges as explained on BCHD's website, as well as distribution and outreach at the weekly Farmers Market in downtown Benton Harbor (Wednesdays mid-June to mid-September, 10 am to 3 pm). Mr. Sims also noted appreciation for your previous assistance with lead in drinking water outreach, and an openness to future partnerships. EPA encourages the Benton Harbor Community Water Council and other organizations to contact BCHS on a partnership to facilitate water filter distribution to Benton Harbor residents. EPA remains committed to protecting public health and*

[107] Letter from Jeni Bolt and Brandon Onan, Michigan Department of Environment, Great Lakes, and Energy, to Ellis Mitchell, City of Benton Harbor, Re: Lead and Copper Monitoring – Action Level (AL) Exceedance (Aug. 3, 2021), (attached as Exhibit 29), *available at* https://drive.google.com/file/d/1HZfC-97KsJUQveQl0HZsxs97Ps1I90aH/view?usp=sharing.

[108] Letter from Benton Harbor Community Water Council to Cheryl Newton, U.S. EPA Region 5 Acting Regional Administrator (Aug. 9, 2021), (attached as Exhibit 49).

[109] Letter from Alan Walts, U.S. EPA, Region 5, Director of Tribal and Multi-media Programs Office, to Reverend Edward Pinkney, President, Benton Harbor Community Water Council (Aug. 30, 2021), (attached as Exhibit 50).

assuring compliance with the SDWA. We will continue to monitor this situation and stay in communication with our state partners at EGLE, and encourage as a next step for you to reach out to BCHD to explore ways to encourage and promote the existing programs for filter distribution in your community.

Highlighted below are some of the problems with Region 5's relying upon BCHD to characterize the filter program:

1) Benton Harbor residents are not fully aware of the community's drinking water emergency because there has not been a proactive and comprehensive effort to inform residents of the high levels of lead in their water. News coverage of the seriousness of this problem has appeared behind a paywall in the Detroit News.[110]
2) Volunteers with BHCWC have gone door-to-door to inform residents of the emergency, which has helped spread the word about the drinking water emergency. However, given the ongoing lead exposure, this effort warrants official mobilization to help residents protect themselves from the high levels of lead in their drinking water.
3) If there has been a sufficient supply of water filters at the BCHD, the agency should have been willing to share unlimited filters and replacement cartridges with BHCWC, which has been and is willing to go door-to-door to distribute cartridges and educate residents about how to install and maintain the filters. Instead, BHCWC has never received filters for distribution to residents.
4) According to the U.S Census Bureau, only 58% of Benton Harbor residents had access to broadband internet between 2015 and 2019.[111]
5) For the 58% of residents with internet access, they must have the specific link included in Region 5's response letter to learn how to obtain access to a filter.
6) If the 58% of residents with internet access do not have the link, they must know there is a lead in drinking water emergency and know to visit the BCHD website. Once they find the site, they must review the selections then navigate to the Lead & Drinking Water link and click on City of Benton Harbor.
7) If residents know there is a lead in drinking water emergency and have internet access, they might learn where filters are available. If they have transportation, they could go pick up a filter or replacement cartridge. If they do not have transportation and know when to replace their cartridge, they can request one be mailed to them.
8) There is no filter installation or maintenance training. Residents are told to read the instructions included with the filter.
9) Neither the lead in drinking water emergency notification system nor the filter program takes into consideration language or literacy needs.

[110] Leonard A. Fleming, *Sixth lead alert raises urgency in Benton Harbor; Residents up pressure on officials to replace pipes* (Aug. 24, 2021), attached as Exhibit 43; Leonard A. Fleming, *Benton Harbor endures 3 years of high lead in water; With levels above those of Flint crisis, residents fear facing 'next epidemic',* The Detroit News (Mar. 26, 2021), attached as Exhibit 44.
[111] U.S. Census Bureau, QuickFacts: Benton Harbor city, Michigan (2015-2019), (attached as Exhibit 45).

10) It is not clear that Benton Harbor, EGLE, or MDHHS has evaluated the filters to ensure they are producing the required lead reduction in the specific water quality delivered in the city of Benton Harbor.
11) It is not clear that both pitcher style and faucet mount filters are available to meet the needs of all residents.

While there are other serious problems with Region 5's response, the staff is endorsing a grossly inadequate program while relying on the volunteers at BHCWC to expand their partnership with BCHD to address the state's longest ongoing lead in drinking water emergency, rather than initiating and leading the crisis response with state emergency resources. This is incomprehensible in light of the role Region 5 played in the ongoing Flint Water Crisis, which took place under the jurisdiction of the same state environmental agency that is guiding Region 5's response to Benton Harbor.

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

- Immediately order and provide the necessary technical assistance to the City to advise all Benton Harbor water customers not to consume unfiltered water from the City's water system. This and all other emergency notifications should be provided as an emergency notification by multiple methods including broadcast, print, mail, door hangers, and online, and in English, Spanish, Urdu, and Arabic to fully inform residents of the emergency and how to protect themselves and their families.[112]

- Immediately provide the technical and financial resources necessary to ensure Benton Harbor residents are provided with an alternative, free source of safe drinking water that meets EPA standards. This should include the delivery of emergency bottled water and/or water buffalos to residents' homes as well as filtered water pitchers and/or faucet mount filters certified to meet the ANSI/NSF standard 53 for lead reduction and ANSI/NSF 42 for particulate reduction. Extensive filter education must also be provided in homes to ensure proper filter installation and maintenance, and replacement filter cartridges certified as detailed above should also be distributed.

- Conduct a filter study to verify that NSF 53 certified filters are effective for reducing lead in Benton Harbor water treated with the blended polyphosphate corrosion inhibitor. A filter effectiveness study in Newark, NJ found that nanoparticles formed during treatment sometimes passed through point-of-use filter units.[113] The USEPA's Corrosion Control guidance manual states that polyphosphates can sequester lead and copper, keeping them in the water and potentially increasing the risk of exposure.[114] A study is necessary to

[112] U.S. Census Bureau, Language Spoken at Home by Ability to Speak English for the Population 5 Years and Over (2015), (attached as Exhibit 46).
[113] Darren A. Lytle et al., Lead Particle Size Fractionation and Identification in Newark, New Jersey's Drinking Water, Environmental Science and Technology (Oct. 12, 2020), (attached as Exhibit 51).
[114] U.S. EPA, Optimal Corrosion Control Treatment Evaluation Technical Recommendations for Primacy Agencies and Public Water Systems (March 2016) (attached as Exhibit 41).

confirm that carbon block filters are effective for removing potential nanoparticulate lead that may be formed by the use of the blended polyphosphate inhibitor and are effective for the design life of the filter cartridge. The study must be conducted or overseen by EPA Office of Research and Development following the study design used in Flint, Michigan but also incorporating size fractionation sampling techniques used in Newark, New Jersey to quantify the impact of nanoparticles in filter breakthrough.

- Ensure that Benton Harbor has been brought into compliance and operating in accordance with 40 C.F.R. § 141.84(b) and Mich. Admin. Code R. 325.10604f(5) lead service line replacement requirements. Benton Harbor should be required to fully replace its lead service lines for all residents at the public water system's expense, as required by the Michigan rules. Given the community's financial and environmental justice status, the State of Michigan should pay for the replacement of all lead service lines, potentially with federal funding assistance, as quickly as possible.

- Pursuant to Section 1442(b) of the Safe Drinking Water Act and other available authorities, U.S. EPA Administrator Regan should provide technical assistance and make grants available to Benton Harbor to assist in responding to and alleviating the emergency situation affecting Benton Harbor's public water system, preventing additional infrastructure maintenance decisions that further delay the replacement and upgrade of failing equipment that contribute to the degradation of Benton Harbor's water quality (i.e., the elevated water storage tank).

- Provide an immediate source of safe drinking water in schools and child care facilities in Benton Harbor. If schools and child care centers utilize water filtration stations, a filter study must be conducted as described above.

- Use its authority under 40 C.F.R. §§ 142.19 and 141.82(i) to review EGLE's determinations concerning corrosion control requirements for the Benton Harbor water system and issue a federal order establishing the optimal corrosion control treatment requirements for the Benton Harbor water system and requiring Benton Harbor to immediately comply with the requirements of 40 CFR 141.81(c) and Mich. Admin. Code R. 325.10604f(2)(c).

- Order the City to conduct continued monitoring for lead and copper in six-month periods in accordance with the procedures set forth in Mich. Admin. Code R. 325.10710a. 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 Mich. Admin. Code R. 325.10710a(4)(d) until 3 years after all lead service lines have been replaced and CCT has reduced lead in drinking water below Michigan's lead action level.

- Order the City to Comply with the public education and supplemental monitoring requirements under MCL 325.1019 and Mich. Admin. Code R. 325.10410, 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 Michigan EGLE to provide such technical and financial and other assistance to Benton Harbor as EPA determines may be necessary to enable the City to comply with this order, including assistance in providing free alternative sources of safe drinking water, funding and completing legally and technically compliant corrosion control studies, and funding replacement of lead service lines. This order to EGLE should be a contingency for EPA funding of EGLE under the Safe Drinking Water Act and other relevant authorities rather than being enforceable under SDWA 1431.

- Order any other additional relief that EPA determines is "necessary to protect" the health of Benton Harbor residents from lead contamination in drinking water.

VII. Conclusion

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

Dated: September 9, 2021

Submitted By:

/s/Reverend Edward Pinkney
Reverend Pinkney, President
Benton Harbor Community Water Council

/s/Nicholas Leonard
Nicholas Leonard, Executive Director
Erin Mette, Staff Attorney
Great Lakes Environmental Law Center
4444 Second Avenue
Detroit, MI 48201
313-782-3372

/s/Jeremy Orr
Jeremy Orr, Senior Staff Attorney
Cyndi Roper, Michigan Senior Policy Advocate
NRDC

/s/Nayyirah Shariff
Nayyirah Shariff, Director
Flint Rising

/s/Sylvia Orduño
Sylvia Orduño, Organizer
People's Water Board Coalition

/s/Maureen Taylor
Maureen Taylor, State Chair
Michigan Welfare Rights Organization

/s/Melissa Mays
Melissa Mays, Coordinator
Water You Fighting For

/s/Elin Betanzo
Elin Betanzo, Principal
Safe Water Engineering, LLC

/s/Marian Kramer
Marian Kramer, Chair
Highland Park Human Rights Coalition

/s/Michelle Martinez
Michelle Martinez, Executive Director
Michigan Environmental Justice Coalition

/s/Gail Philbin
Gail Philbin, Chapter Director
Rhonda Anderson
Sierra Club Michigan Chapter

/s/Mona Hanna-Attisha
Dr. Mona Hanna-Attisha, Director, Pediatric Public Health Initiative; C.S. Mott Endowed Professor of Public Health, Division of Public Health; Associate Professor, Department of Pediatrics and Human Development, Michigan State University College of Human Medicine Hurley Children's Hospital at Hurley Medical Center

/s/Mary Brady Enerson
Mary Brady Enerson, Michigan Director
Clean Water Action

/s/Mara Herman
Mara Herman, MPH, Health Policy Specialist
Ecology Center

/s/Jill Ryan
Jill Ryan, Executive Director
Freshwater Future

`

/s/Daryl Jordan
Daryl Jordan, Co-Director
East Michigan Environmental Action Council

/s/Linda Campbell
Linda Campbell, MPH
Detroit People's Platform

/s/Yanna Lambrinidou
Yanna Lambrinidou, Co-Executive Director
Paul Schwartz, Co-Executive Director
Campaign for Lead Free Water

/s/Liz Kirkwood
Liz Kirkwood, Executive Director
For Love Of Water (FLOW)

/s/Mona Monroe-Younis
Mona Monroe-Younis, Executive Director
Environmental Transformation Movement of Flint

Index for Exhibits

Link to Folder with Exhibits:

https://drive.google.com/drive/folders/1_uW6xbk1GLTL6HPnkEW59WRdudkCZ9JN?usp=sharing

1. Michigan Department of Environment, Great Lakes, and Energy, *Michigan Service Line Materials Estimates Preliminary Distribution System Materials Inventories,* last updated Dec. 2020
2. Letter from Jeni Bolt and Brandon Onan, Michigan Department of Environmental Quality, to Darwin Watson, City of Benton Harbor, *Re: Lead and Copper Monitoring - Action Level (AL) Exceedance* (Oct. 22, 2018)
3. Email from Ernest Sarkipato to EGLE Staff, *Re: Benton Harbor Follow Up Call* (Jan. 9, 2019)
4. Permit Application for Water Supply Systems, Received Jan. 24, 2019
5. Letter from Mike Enlow, Elhorn Engineering, to Mike O'Malley, Benton Harbor Water Superintendent (Nov. 21, 2018)
6. Email from Brian Thurston, EGLE Community Water Supply Section Manager, to EGLE Staff (Feb. 21, 2019)
7. Email from Brandon Onan, EGLE Corrosion Control Engineer, to Ernest Sarkipato, EGLE, (Feb. 25, 2019)
8. Administrative Consent Order; City of Benton Harbor; WSSN: 00600 (Mar. 8, 2019)
9. Email from Mike O'Malley, Benton Harbor Water Superintendent, to EGLE Staff (Mar. 27, 2019)
10. Elhorn Company, *Corrosion Control Treatment Plan and Study Proposal* (April 23, 2019)
11. Email from Ernest Sarkipato, EGLE Surface Water Treatment Specialist to Mike O'Malley, Benton Harbor Drinking Water Superintendent (April 30, 2019)
12. Letter from Jeni Bolt and Brandon Onan, Michigan Department of Environmental Quality, to Darwin Watson, City of Benton Harbor, Re: Lead and Copper Monitoring – Action Level (AL) Exceedance (July 24, 2019)
13. Letter from Great Lakes Environmental Law Center to Eric Oswald, Drinking Water and Environmental Health Division Director (Nov. 6, 2019)
14. Letter from Eric Oswald to Nick Leonard, 2 (Nov. 26, 2019)
15. Lead and Copper Monitoring – Action Level (AL) Exceedance (Jan. 16, 2020)
16. Letter from Brandon Onan, EGLE Supervisor of Lead and Copper Unit, to Ellis Mitchell, Benton Harbor City Manager, 1 (Feb. 13, 2020)
17. Email from Bob London, EGLE Surface Water Treatment Specialist, to EGLE Staff (Feb. 3, 2020)
18. Letter from Mike O'Malley, Benton Harbor Drinking Water Superintendent, to EGLE Staff (May 19, 2020)
19. Email from Ernie Sarkipato, EGLE Surface Water Treatment Specialist, to Ellis Mitchell, Benton Harbor City Manager (Apr. 17, 2020)

20. Letter from Ernie Sarkipato, EGLE Surface Water Treatment Specialist, to Mike O'Malley, Benton Harbor Drinking Water Superintendent (June 17, 2020)
21. Letter from Jeni Bolt and Brandon Onan, Michigan Department of Environment, Great Lakes, and Energy, to Ellis Mitchell, City of Benton Harbor, Re: Lead and Copper Monitoring – Action Level (AL) Exceedance (July 15, 2020)
22. *City of Benton Harbor Corrosion Study Plan* (July 28, 2020)
23. State of Michigan Department of Environment, Great Lakes, and Energy, Drinking Water and Environmental Health Division, *First Amended Administrative Consent Order* (Aug. 7, 2020)
24. Letter from Jeni Bolt and Brandon Onan, Michigan Department of Environment, Great Lakes, and Energy, to Ellis Mitchell, City of Benton Harbor, Re: Lead and Copper Monitoring – Action Level (AL) Exceedance (Feb. 4, 2021)
25. Email from David Koch, Black & Veatch, to Ernest Sarkipato, EGLE Surface Water Treatment Specialist (Mar. 24, 2021)
26. City of Benton Harbor Request for Proposal, Benton Harbor Corrosion Optimization Study (April 19, 2021)
27. Email from Jason Marquardt, Abonmarche on behalf of Benton Harbor, to Benton Harbor and EGLE Staff (May 13, 2021)
28. Letter from Jason Marquardt, Abonmarche, to Ellis Mitchell, Benton Harbor City Manager (Jun. 28, 2021)
29. Letter from Jeni Bolt and Brandon Onan, Michigan Department of Environment, Great Lakes, and Energy, to Ellis Mitchell, City of Benton Harbor, Re: Lead and Copper Monitoring – Action Level (AL) Exceedance (Aug. 3, 2021)
30. Centers for Disease Control and Prevention, *Blood Lead Levels in Children*.
31. U.S. EPA, Basic Information about Lead in Drinking Water
32. Ronnie Levin, et al., *Lead Exposures in U.S. Children, 2008: Implications for Prevention,* 116 Environ. Health Perspect. (1) 1285-93 (2008)
33. Andrew Marshall, et al., *Association of lead-exposure risk and family income with childhood brain outcomes,* Nature Medicine, Vol. 26, 91-97 (Jan. 2020)
34. United States Census Bureau, *Year Structure Built, Table B25034, Benton Harbor, Michigan, American Community Survey 5-Year Estimates 2015-2019*
35. David E. Jacobs, et al., *The Prevalence of Lead-Based Paint Hazards in U.S. Housing*, 110 (10) Environmental Health Perspectives A599, A601-A602 (Oct. 2002)
36. United States Census Bureau, *Selected Housing Characteristics, Table DP04, Benton Harbor, Michigan, American Community Survey 5-Year Estimates 2015-2019*
37. Tiffany Anne Loftus Butzbaugh, *A Socio-Historical Analysis of the Benton Harbor, Michigan Desegregation Case between 1967 and 1981* (Aug 2003)
38. *Berry v. School Dist.,* 442 F. Supp. 1280 (1977)
39. Evan Comen, *Detroit, Chicago, Memphis: The 25 most segregated cities in America*, USA Today (July 20, 2019)
40. Robert J. Sampson and Alix S. Winter, *The Racial Ecology of Lead Poisoning: Toxic Inequality in Chicago Neighborhoods, 1995-2013*, Du Bois Review: Social Science Research on Race (Winter 2016)
41. U.S. EPA, Optimal Corrosion Control Treatment Evaluation Technical Recommendations for Primacy Agencies and Public Water Systems (March 2016)

42. Email from Francie Kline, EGLE DWEHD FOIA Liaison, to Nicholas Leonard (Aug. 25, 2021).
43. Leonard A. Fleming, *Sixth lead alert raises urgency in Benton Harbor; Residents up pressure on officials to replace pipes* (Aug. 24, 2021).
44. Leonard A. Fleming, *Benton Harbor endures 3 years of high lead in water; With levels above those of Flint crisis, residents fear facing 'next epidemic',* The Detroit News (Mar. 26, 2021).
45. U.S. Census Bureau, QuickFacts: Benton Harbor city, Michigan (2015-2019)
46. U.S. Census Bureau, Language Spoken at Home by Ability to Speak English for the Population 5 Years and Over (2015).
47. EPA Region III, Emergency Administrative Order. In the Matter of Clarksburg Water Board, Respondent. Docket No. CWA-03-2021-0110DS, July 14, 2021.
48. Letter from Benton Harbor Community Water Council to Eric Oswald, EGLE (Jul. 19, 2021)
49. Letter from Benton Harbor Community Water Council to Cheryl Newton, U.S. EPA Region 5 Acting Regional Administrator (Aug. 9, 2021).
50. Letter from Alan Walts, U.S. EPA, Region 5, Director of Tribal and Multi-media Programs Office, to Reverend Edward Pinkney, President, Benton Harbor Community Water Council (Aug. 30, 2021).
51. Darren A. Lytle et al., Lead Particle Size Fractionation and Identification in Newark, New Jersey's Drinking Water, Environmental Science and Technology (Oct. 12, 2020).