



City of New Bedford

IN COMMITTEE

May 11, 2021

The Honorable City Council
133 William Street
New Bedford, MA 02740

Dear Honorable Members of the City Council:

The Committee on Environmental Affairs at a Meeting held on Wednesday, April 21, 2021, considered a WRITTEN MOTION, Councillors Lima, Abreu, Gomes, Morad and Markey, requesting, that the Special Committee on Environmental Affairs discuss the Boston University Superfund Research Program's findings that there exists a potential airborne health hazard emanating from contaminated water in New Bedford Harbor; and further that Health Director Damon Chaplin, Environmental Stewardship Director Michele Paul and BUSRP Researchers be invited to said Committee meeting (Ref'd 02/13/2020) (02/27/2020 - tabled); and a COMMUNICATION, Councillor Lima, submitting an article entitled "Potentially Harmful Air Contamination from New Bedford Harbor" dated December 5, 2019 by the Boston University's School of Public Health. (To be Referred to the Committee on Environmental Affairs.) (Ref'd 02/13/2020) (02/27/2020 - tabled)

On motion by Councillor Lopes and seconded by Councillor Giesta, the Committee Voted: To waive the reading and recommend to the City Council to take "No Further Action" on the WRITTEN MOTION, Councillors Lima, Abreu, Gomes, Morad and Markey, requesting, that the Special Committee on Environmental Affairs discuss the Boston University Superfund Research Program's findings that there exists a potential airborne health hazard emanating from contaminated water in New Bedford Harbor; and further that Health Director Damon Chaplin, Environmental Stewardship Director Michele Paul and BUSRP Researchers be invited to said Committee meeting; and on the COMMUNICATION, Councillor Lima, submitting an article entitled "Potentially Harmful Air Contamination from New Bedford Harbor" dated December 5, 2019 by the Boston University's School of Public Health. This motion passed on a Roll Call Vote of Yeas 6, Nays 0, with Councillors Abreu, yes; Dunn, yes; Giesta, yes; Lima, yes; Lopes, yes; Morad, yes.

IN COMMITTEE ON ENVIRONMENTAL
AFFAIRS

Councillor Scott J. Lima, Chairman

SJL: dmb



CITY OF NEW BEDFORD

CITY COUNCIL

February 13, 2020

Requesting, that the Special Committee on Environmental Affairs discuss the Boston University Superfund Research Program's findings that there exists a potential airborne health hazard emanating from contaminated water in New Bedford Harbor; and further that Health Director Damon Chaplin, Environmental Stewardship Director Michele Paul and BUSRP Researchers be invited to said Committee meeting.

Scott Lima, Councillor Ward Five

Ian Abreu, Councillor at Large

Brian K. Gomes, Councillor at Large

Linda M. Morad, Councillor at Large

Brad Markey, Councillor Ward One

Potentially Harmful Air Contamination from New Bedford Harbor

POSTED ON: December 5, 2019 TOPICS: [air pollutants](#), [air pollution](#), [PCBs](#), [superfund research program](#), [water contamination](#), [water pollutants](#)



A new School of Public Health study indicates that the contaminated water of New Bedford Harbor may pose an airborne health hazard for residents living nearby in Acushnet, Dartmouth, Fairhaven, and New Bedford. The US Environmental Protection Agency (EPA) declared the southeastern Massachusetts harbor a Superfund site and has been cleaning up sediment contaminated with polychlorinated biphenyls (PCBs) since the 1990s, focusing efforts on PCB levels in the sediment and in fish consumed from the harbor, and associated cancer risks.

But the new study, [published in *Science of the Total Environment*](#), is the first to estimate the non-cancer health effects of breathing airborne PCBs around the harbor, namely thyroid hormone effects, which can raise the risk of diabetes, low birth weight, and impaired neurodevelopment.

“Residents have been concerned about the air for over a decade. Our study shows that they are correct to be concerned,” says [Wendy Heiger-Bernays](#), clinical professor of environmental health and the study’s corresponding author. “It also indicates that it’s important to monitor the PCBs in air as a measure of a successful cleanup.”

The study is part of ongoing research at New Bedford Harbor through the [Boston University Superfund Research Program \(BUSRP\)](#). Industry around the harbor used PCBs to produce electronic devices from 1940 until the late 1970s, when the EPA banned the manufacture of PCBs due to health concerns, and the harbor became one of the nation’s largest Superfund sites.

Residents have been concerned with air quality since dredging to clean the port started in 1994. By request from community members, the researchers previously measured airborne PCB levels in various locations around the harbor in 2015 and 2016 (including during a period of hydraulic dredging as part of the site's cleanup). In a 2017 study, the researchers confirmed that the harbor was the source of the PCBs in the air—and found that the harbor was the single largest continuous source of airborne PCBs ever measured from natural waters in the US or Canada.

For the new study, the researchers estimated the health effects of these measurements. The EPA has no published guidelines for the amount of PCBs in air that might be safe to breathe, so the SPH team used evidence from other researchers' rodent studies to develop a human-equivalent estimate of the likelihood of different levels of airborne PCB exposure to cause "unreasonable risk" as the EPA defines it.

They found that the airborne PCB levels were high enough to potentially affect the thyroid hormones of residents, particularly those living within 625 meters (0.4 miles) of the harbor.

"In addition to cancers, residents have been very concerned about other health problems that are not typically considered by health agencies when regulating exposures," says Madeleine Scammell, associate professor of environmental health and co-lead of the study. "Although clean-up of the harbor is nearly complete, and some may feel this is 'too little too late,' we hope our results can inform other settings where inhaled PCBs are a risk, so that subtler human health risks are factored into the equation."

The study was co-authored by: alum Kathryn Scott Tomsho, who was a master's student and research assistant in the Department of Environmental Health while working on the study; and Komal Basra and Zoe Petropoulos, doctoral candidates in the Department of Environmental Health. The other co-authors were Andres Martinez and Keri C. Hornbuckle of the University of Iowa Superfund Research Program.

—Michelle Samuels