

Congress of the United States
Washington, DC 20515

July 15, 2020

The Honorable Andrew R. Wheeler
Administrator
Environmental Protection Agency
1200 Pennsylvania Avenue NW
Washington, DC 20460

Dear Administrator Wheeler,

We write to request that the Environmental Protection Agency (EPA) act immediately to better monitor and address poor air quality in Chelsea, Massachusetts. Chelsea is a major industrial hub that has the highest rate of COVID-19 cases in the state of Massachusetts, has been affected by recent nearby demolition work, and is also afflicted by longstanding burdens of historic air pollution. Recent demolition work involved with the Tobin Bridge and the Chelsea Viaduct construction projects led to a large release of hazardous particulate matter on May 30, coating parts of Chelsea with thick dust.¹ Despite these many sources of pollution and the high rates of respiratory illness, the community does not have a permanent air quality monitor to collect data during events like the recent demolition. We urge the EPA to promptly deploy mobile air quality sensors in Chelsea.

Chelsea is surrounded by industries that pollute residents' air, water, and land. Chelsea residents suffer from one of the highest rates of asthma in Massachusetts at 17 percent, along with elevated rates of heart disease, lung disease, and cancer.² Chelsea Creek is the storage site for most of the road salt for the New England area, 70-80 percent of the region's heating fuel, and 100 percent of the jet fuel used by Logan International Airport.^{3,4} Additionally, more than 37,000 trucks drive in and out of Chelsea each day in order to stop at the nation's largest produce center.⁵ The EPA's Toxic Release Inventory found that in 2015, two thousand pounds of waste product were expelled into the air by petroleum storage facilities in Chelsea, including lung-irritating toluene and the carcinogen benzene.⁶ With all of these sources of pollution, Chelsea

¹ Bruce Mohl, *Demolition Dust One More Chelsea Burden*, Commonwealth Magazine (June 21, 2020), <https://commonwealthmagazine.org/transportation/demolition-dust-one-more-chelsea-burden/>.

² *Prevalence of Asthma Among Adults and Children in Massachusetts*, Massachusetts Department of Public Health (2017), <https://www.mass.gov/files/documents/2018/05/09/burden-in-mass.pdf>.

³ Shannon Dooling, *'Hit First And Worst': Region's Communities Of Color Brace For Climate Change Impacts*, WBUR (July 16, 2017), <https://www.wbur.org/news/2017/07/26/environmental-justice-boston-chelsea>.

⁴ *Detox: GreenRoots' Fight for Environmental Justice in Chelsea*, Data Visualization Class at Emerson College (Dec. 2017), <https://www.arcgis.com/apps/MapJournal/index.html?appid=1e6d2b3649964268818d5ffd79550397>.

⁵ *Final Report: New Methods for Analysis of Cumulative Risk in Urban Populations*, United States Environmental Protection Agency (2015), <https://cfpub.epa.gov/ncer/abstracts/index.cfm/fuseaction/display.abstractDetail/abstract/9278/report/F>.

⁶ Anahita Padmanabhan, Jillian Gearin, Taylor Carlington and Stayshia Cody, *Chelsea's Asthma Problem*, Emerson College Data Visualization (Dec. 21, 2017), <https://word.emerson.edu/dataviz/2017/12/21/chelseas-asthma-problem/>.

residents face nearly twice the risk of respiratory illness from air toxics as compared to the rest of Massachusetts.⁷

Despite the clear evidence of years of pollutant exposure and corresponding health impacts, there is no permanent air quality monitor in Chelsea, while nearby Boston has three permanent air quality monitors.⁸ There are three large construction projects now happening simultaneously in Chelsea that are potentially releasing additional air pollution over the course of the multi-year projects, with no local data monitoring to understand the cumulative impact on residents. Recent dust exposure from one of these projects left Chelsea homes and cars caked with dust and left residents exposed to harmful particulate matter.⁹

Recent studies have tied air pollution to an increased risk of COVID-19 mortality, with long-term exposure to particulate matter—pollution from cars, refineries, power plants, demolition dust, and other sources—linked to an 8 percent increase in the death rate.¹⁰ Chelsea is by far the hardest-hit community in Massachusetts, with a COVID-19 infection rate of 7.7 percent—nearly twice the rate of the next highest community.¹¹ Chelsea is facing a serious public health crisis that is exacerbated by years of poor air quality. The short-term pollution exposure from demolition dust represents a potential new health issue, but residents have been living with the unjust and cumulative burden of multiple pollution sources for decades. The entire Chelsea community is designated as an environmental justice area in Massachusetts, with 20 percent of residents living below the poverty line, increasing both the urgency and the difficulty that residents face in fighting against the twin crises of COVID-19 and air pollution.^{12,13}

The EPA's Regional Air Sensor Loan Program offers short-term air quality monitoring, which can be deployed in response to local air quality issues.¹⁴ The demolition and construction work in Chelsea provides a clear and pressing need for local air quality monitoring, as residents do not have an accurate measure of the local air quality or potential hazards to their health. Portable sensors can measure particulate matter, carbon monoxide, and other pollutants, presenting a more complete picture of what Chelsea residents are breathing on a regular basis. Without a

⁷ *Health in Zip 02150 (Chelsea, MA)*, BestPlaces (accessed July 2, 2020), <https://www.bestplaces.net/health/zip-code/massachusetts/chelsea/02150>.

⁸ *MassAir Online*, Massachusetts Department of Environmental Protection (2016), <http://eeaonline.eea.state.ma.us/dep/massair/web/#/pollution/map/max>.

⁹ Bruce Mohl, *Demolition Dust One More Chelsea Burden*, Commonwealth Magazine (June 21, 2020), <https://commonwealthmagazine.org/transportation/demolition-dust-one-more-chelsea-burden/>.

¹⁰ Xiao Wu, Rachel C. Nethery, Benjamin M. Sabath, Danielle Braun, and Francesca Dominici, *Exposure to air pollution and COVID-19 mortality in the United States*, medRxiv (Apr. 27, 2020), <https://doi.org/10.1101/2020.04.05.20054502>.

¹¹ *Weekly COVID-19 Public Health Report*, Massachusetts Department of Public Health (June 24, 2020), <https://www.mass.gov/doc/weekly-covid-19-public-health-report-june-24-2020/download>.

¹² *2010 Environmental Justice Populations*, Mass.gov (2010), <https://www.mass.gov/doc/ej2010communitystatisticspdf/download>.

¹³ Shannon Dooling, *'Hit First And Worst': Region's Communities Of Color Brace For Climate Change Impacts*, WBUR (July 16, 2017), <https://www.wbur.org/news/2017/07/26/environmental-justice-boston-chelsea>.

¹⁴ *Air Sensor Loan Programs*, United States Environmental Protection Agency (Mar. 23, 2020), <https://www.epa.gov/air-sensor-toolbox/air-sensor-loan-programs>.

Administrator Wheeler
July 15, 2020
Page 3

better collection of data in this community, local, state, regional, and federal officials cannot respond appropriately to dangerous inequities in air quality.

We urge you to quickly deploy air quality monitoring equipment in Chelsea, either through the Regional Air Sensor Loan Program or another appropriate program, in order to have a better understanding of the unique public health challenges facing this city. We look forward to your reply and thank you for your attention to this important issue.

Sincerely,



Edward J. Markey
United States Senator



Ayanna Pressley
Member of Congress

CC:
Dennis Deziel
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Environmental Protection Agency, Region 1

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