



To the members of the House Committee on Environmental Regulation.  
Via hand delivery.

March 29, 2021

Re: HB 1627 by Rep. Senfronia Thompson - Supporting testimony of Air Alliance Houston

Dear Chairman Landgraf and members of the committee:

Air Alliance Houston appreciates the opportunity to comment in support of HB 1627 by Rep. Senfronia Thompson, relating to the issuance of air quality permits for concrete plants located in certain areas.

**Exposure to fine particulate matter (PM<sub>2.5</sub>) is the main concern with locating concrete batch plants (CBP) near homes and schools due to the range of health effects from both short and long-term exposure.**

PM<sub>2.5</sub> is a widespread air pollutant, consisting of a mixture of solid and liquid particles suspended in the air, and it is one of six pollutants subject to national ambient air quality standards (NAAQS).<sup>1</sup> PM<sub>2.5</sub> is defined as particles that are less than 2.5 microns in aerodynamic diameter or 1/40th the width of a human hair. In 2017, a comprehensive longitudinal study including over 61 million American seniors in 48 states followed for 13 years, found an association between air pollution and mortality. The study found notable increases in death at exposure levels below the current EPA standard and concluded there is no evidence of a safe level of exposure or a threshold below which no adverse health effects occur.<sup>2</sup>

In addition to PM<sub>2.5</sub> exposure from CBP operations, residents are also exposed daily to PM<sub>2.5</sub> and diesel exhaust from hundreds of trucks going to and from facilities within neighborhoods. The standard concrete batch plant permit allows concrete production up to 6,000 cubic yards/day. The average concrete mixer holds 8-10 cubic yards. The permit's maximum allowable production capacity translates into 600-750 trucks a day for just one facility. Some of these communities have five or more CBPs very close to each other. This creates a significant level of exposure to PM<sub>2.5</sub> and diesel exhaust. For example, the pollution outside of one third of the concrete batch plants surveyed in a 2019 study by the Environmental Defense Fund was similar to that of some of the most

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<sup>1</sup> Particulate Matter (PM) Basics. <https://www.epa.gov/pm-pollution/particulate-matter-pm-basics>

<sup>2</sup> Di Q, Dai L, Wang Y, et al. Association of Short-term Exposure to Air Pollution With Mortality in Older Adults. JAMA. 2017;318(24):2446–2456. doi:10.1001/jama.2017.17923.

Everyone has a right to breathe clean air.

a: 2520 Caroline Street, Suite 100, Houston, TX 77004 | p: 713.528.3779 | w: [airalliancehouston.org](http://airalliancehouston.org)

congested sections of major freeways in the Houston-area.<sup>3</sup>

**Residents are in fear of the impact on their health and feel violated that their neighborhood quality of life is not being protected from these types of facilities.**

For a number of years, Air Alliance Houston staff have been meeting and speaking with many residents that have expressed concern about concrete batch plants in their neighborhoods. Some we have met with, like residents in the Minnetex community, are concerned about the existing and growing number of batch plants. There are more than 5 CBPs in that neighborhood along Schurmeier Rd., which is adjacent to a working-class residential neighborhood. In a 2017 op-ed, resident Nancy Furst describes the impact, “The sky is often a milky haze because the facility creates so much dust. We also see the tiny white particles on the back of our palomino horse, Joe. Our trees do not produce pecans anymore. It is heart-breaking. I know if I can see the dust in the air and on my horse, then I am breathing it, too. So are my neighbors.”<sup>4</sup> This is just one example of hundreds of residents that are being impacted by the infringement of CBPs in neighborhoods where they do not belong.

**The health of children is also being compromised by the placement of concrete batch plants in close proximity to schools.** Asthma is among the leading health reasons children miss school.<sup>5</sup> Children of color have higher rates of asthma diagnosis and worse control over their asthma symptoms compared to their white peers with asthma. For example, Black children are twice as likely to be hospitalized for asthma and are eight times more likely to die from asthma as non-Hispanic white children.<sup>6</sup> In the previously mentioned 2019 study, the Environmental Defense Fund traveled 32,000 miles around the Houston Region collecting air quality measurements in 22 Houston communities and found that nearly half of Houston’s schools experience elevated levels of pollution including PM<sub>2.5</sub>.<sup>7</sup>

Air Alliance Houston examined CBPs within 0.5 and 1 mile of schools in the Houston Independent School District (HISD) and found there are 10 schools within .5 miles and 67 schools within 1 mile. Data from the 2019-2020 HISD Campus Demographic Report show that many of these schools are predominantly children of color and/or economically disadvantaged.<sup>8</sup>

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<sup>3</sup> Environmental Defense Fund. Finding pollution—and who it impacts most—in Houston. Available at <https://www.edf.org/airqualitymaps/houston/findings>.

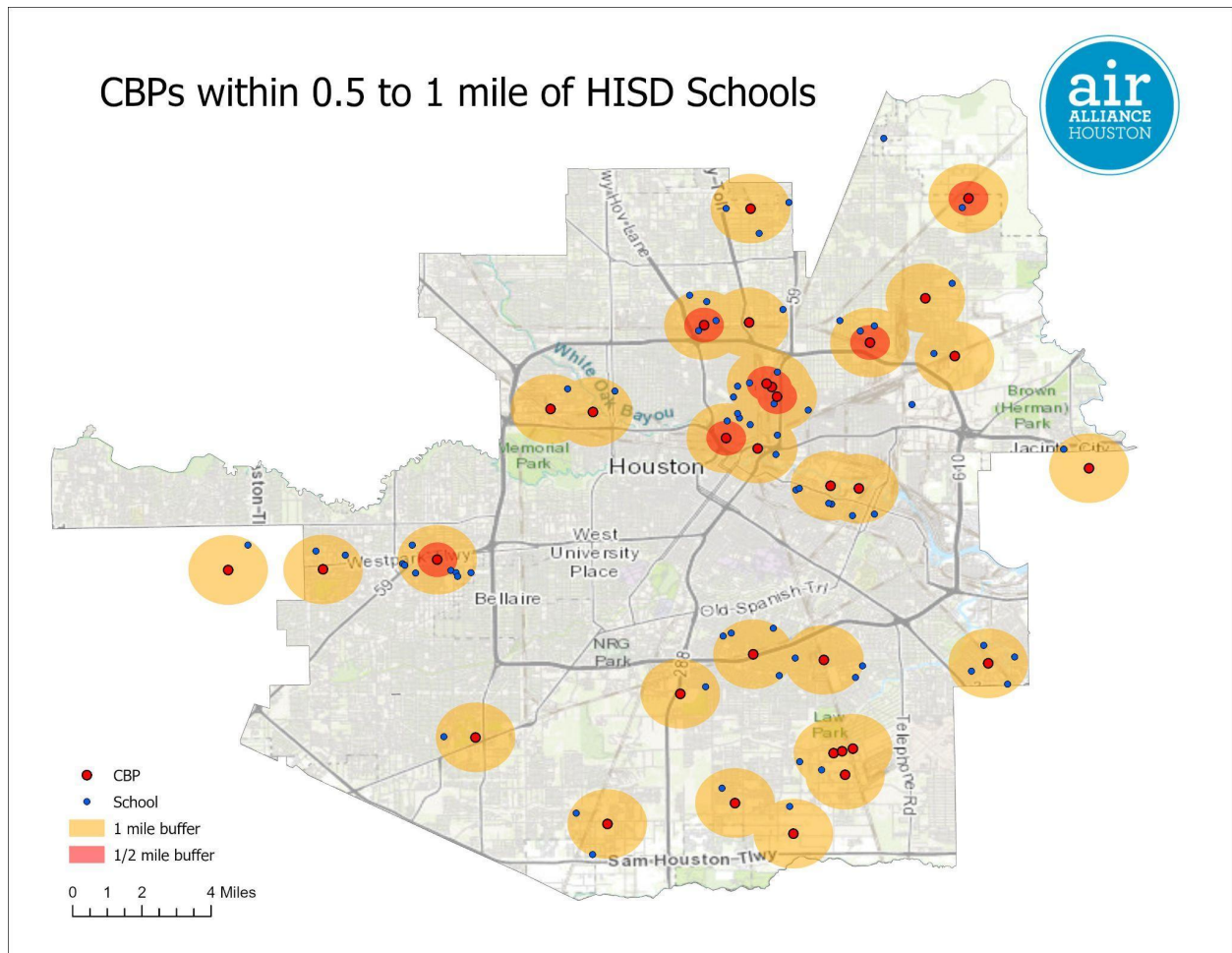
<sup>4</sup> Dirty air is affecting our quality of life: <https://www.houstonchronicle.com/opinion/outlook/article/Furst-Dirty-air-is-affecting-our-quality-of-life-11757235.php>

<sup>5</sup> Hsu, J., Qin, X., Beavers, S. F., & Mirabelli, M. C. (2016). Asthma-Related School Absenteeism, Morbidity, and Modifiable Factors. *American journal of preventive medicine*, 51(1), 23–32. <https://doi.org/10.1016/j.amepre.2015.12.012>.

<sup>6</sup> U.S. Department of Health and Human Services, Office of Minority Health. African-Americans and Asthma. Available at <https://minorityhealth.hhs.gov/omh/browse.aspx?lvl=4&lvlid=15>.

<sup>7</sup> Environmental Defense Fund. Finding pollution—and who it impacts most—in Houston. Available at <https://www.edf.org/airqualitymaps/houston/findings>.

<sup>8</sup> Research Campus Demographic Report, Research and Accountability Report, 2019-2020.



It is also important to note that several of the elementary schools within 0.5 - 1 mile of a CBP have students that utilize asthma-related emergency services at a higher rate than other schools in HISD.<sup>9</sup> This same study showed that African-American children comprised the largest percentage of ambulance-treated asthma cases: 72 percent for elementary school students, 81 percent for middle schoolers and 79 percent for high schoolers.<sup>10</sup>

Lastly, Black and Brown communities and working class neighborhoods are disproportionately burdened with CBPs and many other types of exposures that pose risks to their health. A recent study found that Blacks and Hispanics on average bear a

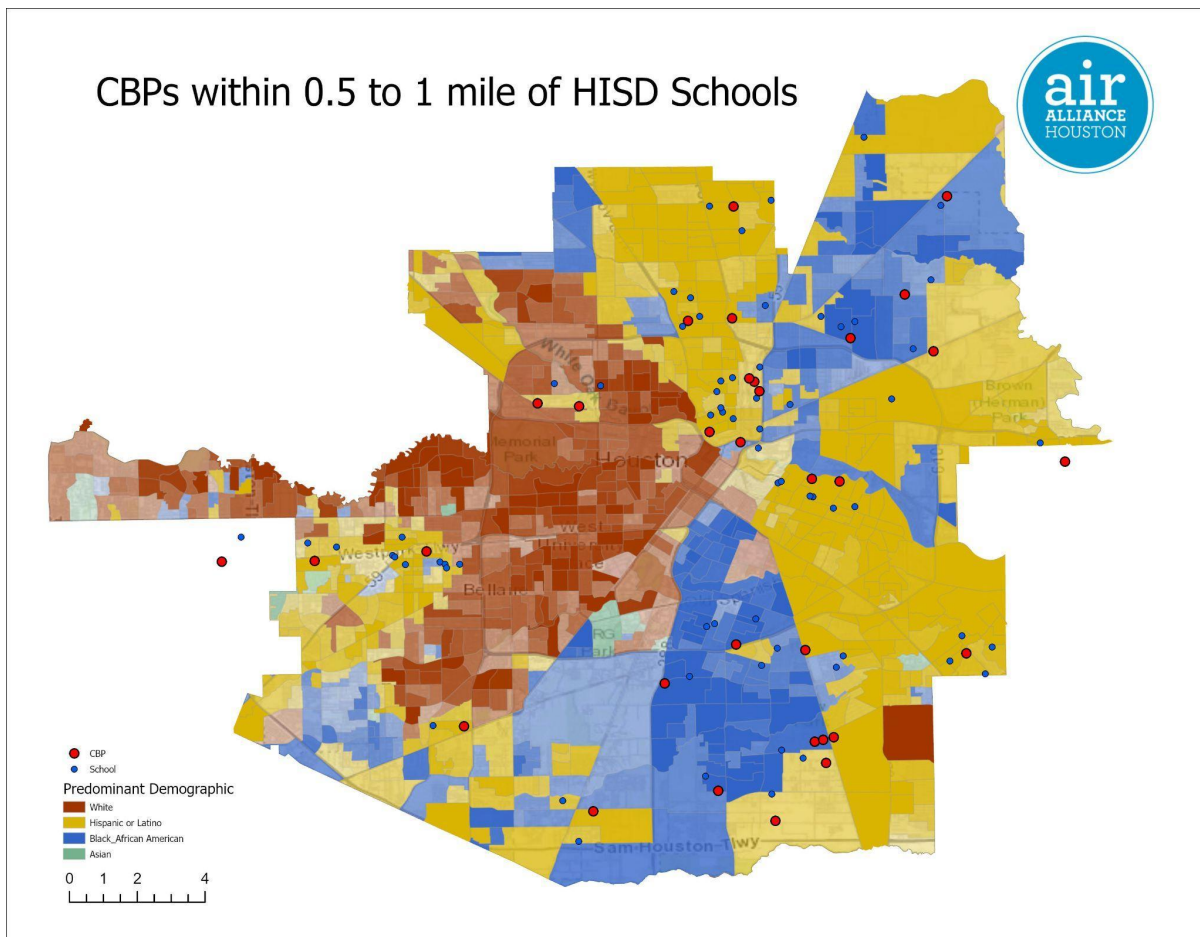
<https://www.houstonisd.org/site/handlers/filedownload.ashx?moduleinstanceid=153638&dataid=267462&FileName=Campus%20Demographic%20Report%20book%202019-2020.pdf>

<sup>9</sup> Raun, L. H., Campos, L. A., Stevenson, E., Ensor, K. B., Johnson, G., & Persse, D. (2017). Analyzing Who, When, and Where: Data for Better Targeting of Resources for School-Based Asthma Interventions. *Journal of School Health*, 87(4), 253–261. <https://doi.org/10.1111/josh.12494>.

<sup>10</sup>ibid.

“pollution burden” of 56% and 63% excess exposure, respectively, relative to the exposure caused by their consumption.<sup>11</sup> These cumulative risks’ result in health inequities and being diagnosed, on average, 10 years earlier than Whites with chronic diseases and premature death.<sup>12</sup>


HB1627 is one step forward toward protecting these communities from additional harm.



<sup>11</sup> Tessum, C. W., Apte, J. S., Goodkind, A. L., Muller, N. Z., Mullins, K. A., Paoella, D. A., Polasky, S., Springer, N. P., Thakrar, S. K., Marshall, J. D., & Hill, J. D. (2019). Inequity in consumption of goods and services adds to racial-ethnic disparities in air pollution exposure. *Proceedings of the National Academy of Sciences*, 116(13), 6001–6006. <https://doi.org/10.1073/pnas.1818859116>.

<sup>12</sup> Thorpe, R. J., Jr, Fesahazion, R. G., Parker, L., Wilder, T., Rooks, R. N., Bowie, J. V., Bell, C. N., Szanton, S. L., & LaVeist, T. A. (2016). Accelerated Health Declines among African Americans in the USA. *Journal of urban health : bulletin of the New York Academy of Medicine*, 93(5), 808–819. <https://doi.org/10.1007/s11524-016-0075-4>.

Respectfully,

A handwritten signature in black ink, appearing to read "Bakeyah Nelson". The signature is fluid and cursive, with the first name "Bakeyah" written in a larger, more prominent script than the last name "Nelson".

Bakeyah Nelson, PhD  
Executive Director  
Air Alliance Houston

## OPINION//OUTLOOK

Available at:

<https://www.houstonchronicle.com/opinion/outlook/article/Furst-Dirty-air-is-affecting-our-quality-of-life-11757235.php>

Furst: Dirty air is affecting our quality of life

Nancy Furst

Aug. 11, 2017

My neighborhood, in far south Houston, is a place where you can live in the country without leaving the city.

Not far from where Beltway 8 and Texas 288 meet, my husband and I own a post-Depression house with some land for horses and pecan trees. There are nights when the stars above us are truly big and bright. That is why we moved here 20 years ago.

Now, an outbreak of concrete batch plants is threatening our idyll - and our health.

One of these plants, which produce the ready-mix concrete used for new buildings and roads, operates around-the-clock behind our fence. The sky is often a milky haze because the facility creates so much dust. We also see the tiny white particles on the back of our palomino horse, Joe. Our trees do not produce pecans anymore.

It is heart-breaking. I know if I can see the dust in the air and on my horse, then I am breathing it, too. So are my neighbors.

The tiny particles can get deep into your lungs, and some may even get into your bloodstream. Scientific studies have linked particulate pollution with aggravated asthma, decreased lung function and premature death for people with heart or lung disease, according to the Environmental Protection Agency.

Many people do not realize how widespread this problem is. As the Houston Chronicle reported ("Efforts to bring fresher air to Houston face headwinds" Page A3, Sunday), Harris County has 188 concrete batch plants, more than any county in Texas. The number is likely to grow with the area's population because the plants tend to locate near a project site.

Where I live is ground zero. There are 18 concrete batch plants within a four-mile radius, including five along Schurmier Road, one of the main streets in my neighborhood. That is because land is relatively inexpensive but rich in sand, one of the ingredients for concrete.

The plants do more than dirty the air. They produce truck traffic on roads that are too narrow for them. There is noise at all hours. Open fields where horses and cattle grazed



are now wide, deep canyons because of sand mining. There is pooling in our drainage ditches from these operations.

It is difficult not to feel hopeless. The plants can operate in residential areas because Houston does not have zoning, and the Texas Commission on Environmental Quality does not always require a 440-foot setback from a home, church or school as part of their permits.

Thankfully, Houston officials are starting to take a closer look at the problem. It is the right thing to do, considering the city's general plan lists "nurture safe and healthy neighborhoods" as a core strategy.

Here are the actions that I would like them to take:

First, the city should develop criteria to evaluate the sale or lease of its land that considers the existing environmental hazards in a community. This review should be part of the decision-making for any transaction involving the city.

Second, the city should include language in its sales contracts specifying that the land cannot create an environmental hazard for the surrounding community. Not only are these facilities a threat to public health, they harm our property values.

Third, the city should establish incentives for developers who intend to use land for a potentially hazardous purpose to locate away from where people live, work, learn and play.

Taken together, these policies would help neighborhoods like mine to breathe easier.

Furst is a resident of Houston's Minnetex neighborhood.