

## Environment - Ambient Air Monitoring - Particulate and Fine Particulate Matter

Dear Committee Members:

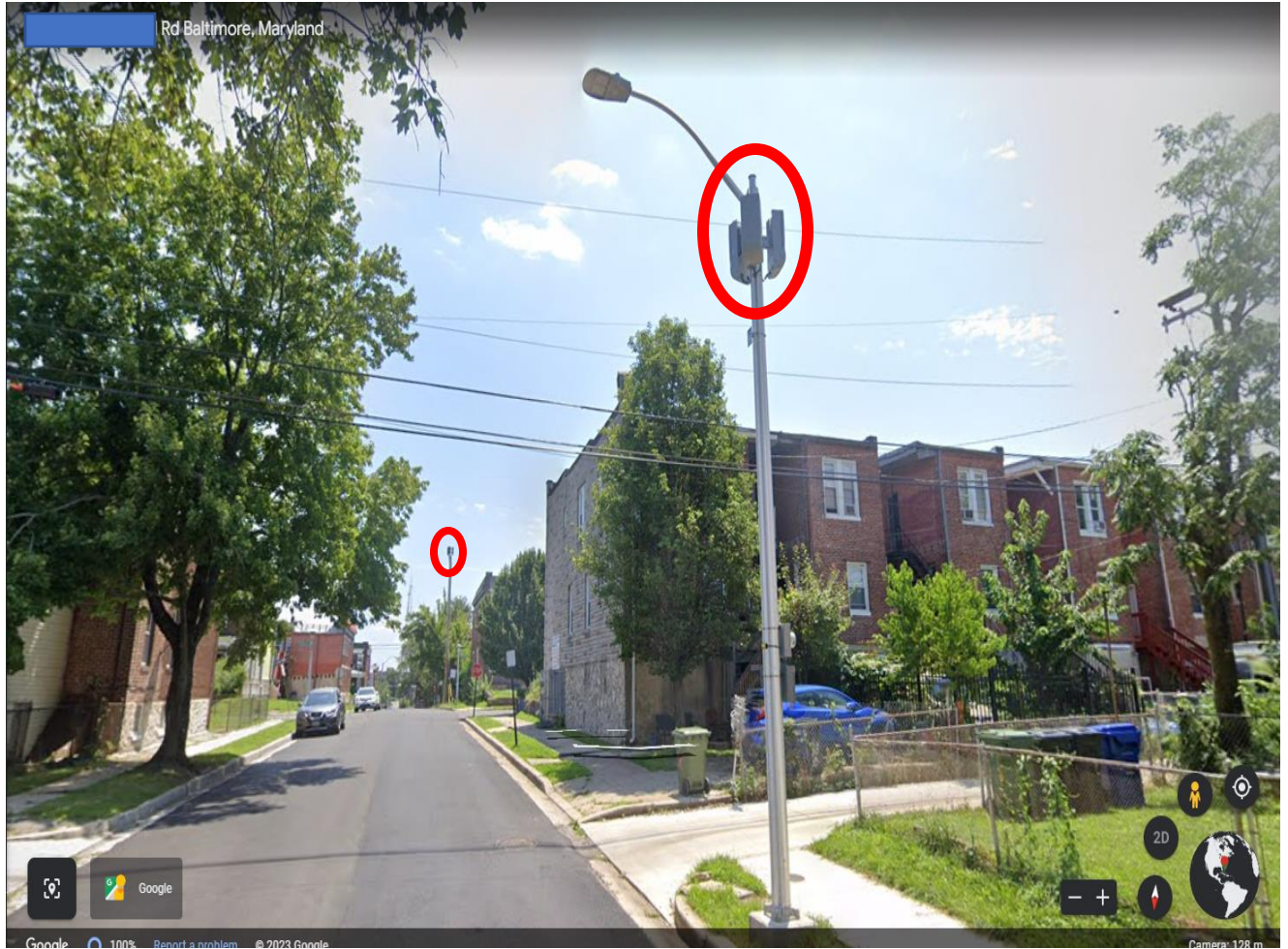
The goal of this bill is commendable; however there are significant regulatory gaps that are not being addressed currently (as an amendment, these two things should be added to this bill). Right now, the Maryland Dept of the Environment does not regulate two large sources of pollution at all, which one could argue, damage these overburdened communities much more than anything else listed in this bill as written. These two sources of pollution are not being regulated, measured, or monitored in the State of Maryland.

**1) One such source is microwave radiation** emitted by wireless telecommunications infrastructure. This radiation is currently classified as a group 2B carcinogen. The telecommunications industry itself designates this as a pollutant and has been unable to get insurance to cover liabilities related to damages from exposure to this type of radiation. <https://ehtrust.org/key-issues/electromagnetic-field-insurance-policy-exclusions/>

The picture below is in a minority residential neighborhood in northwest Baltimore being irradiated 24/7 by telecommunications antennas (sometimes called 4G/5G, or “small cells”). Many of these antennas are not in compliance with the 1980s-era FCC guidelines. No regulatory agency has established safety standards or is regulating, measuring, or monitoring this pollution. These emissions and infrastructure are especially prolific in underserved and minority neighborhoods.

(continued below)

HB0473 Favorable with Amendments

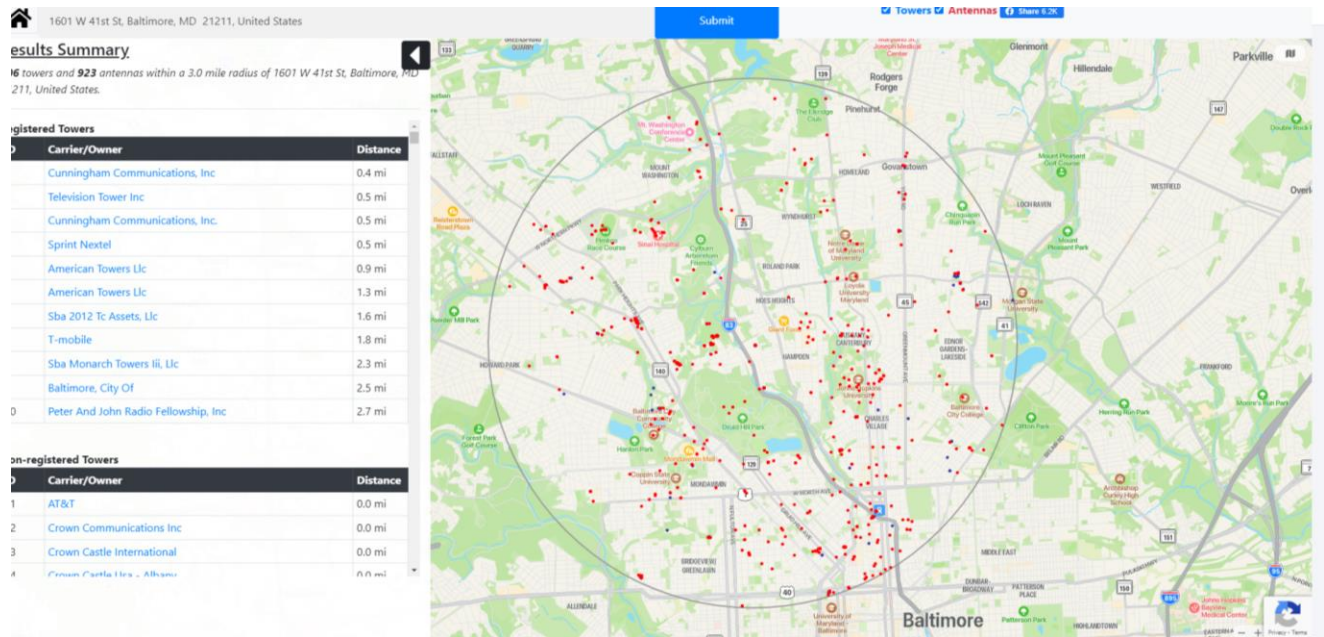


Rd and Ave, NW Baltimore, showing two radiation-emitting towers (circled in red).

(continued below)

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The map below shows telecommunications infrastructure in an area of northwest Baltimore as delineated by [www.antennasearch.com](http://www.antennasearch.com). Many structures/antennas have no contact information or microwave frequency data associated with them. No regulation, measuring, or monitoring is being conducted.



(Above) Map showing proliferation of radiation-emitting infrastructure in NW Baltimore (a quick search shows one unregistered antenna emitting over 21 GHz; 2.45 GHz is used in experiments to induce diabetes in rats)



(Above) Illustration showing magnitude of radiation from a neighborhood small cell.

**2) The other source of pollution not regulated** by the Maryland Department of the Environment is the practice of Stratospheric Aerosol Injection (geoengineering) promoted and encouraged by NOAA and NASA. No regulation, measuring, or monitoring is being conducted, per then-Secretary of Md Dept of the Environment, Ben Grumbles.



**Maryland**  
Department of  
the Environment

Larry Hogan  
Governor  
Boyd Rutherford  
Lieutenant Governor  
Ben Grumbles  
Secretary

January 9, 2017

Ms. Jolie Diane  
[jolied818@gmail.com](mailto:jolied818@gmail.com)

Dear Ms. Diane:

The Governor received your email regarding geoengineering and asked me to respond on his behalf. The information you provided regarding upcoming conferences related to the governance of geoengineering is appreciated and I thank you for keeping State government informed about this issue.

The Department is not active on this issue. As we have stated in a previous correspondence, our focus is on enforcing the laws that are currently on the books, and there is not currently a law in Maryland that prohibits geoengineering related activities. To address geoengineering in any way moving forward would require resources to thoroughly review the science on both sides of the issue and, if need be, develop a program that is implementable and contains provisions that are enforceable as a practical matter. At this time, we do not have the resources for such an effort.

Again, I do appreciate the updated information. It keeps the issue before us and allows us to be more informed about the efforts of others. If I may be of further assistance, please contact me at 410-537-3084 or Mr. George (Tad) S. Aburn, Jr., Director of the Air and Radiation Management Administration at 410-537-3255 or email at [george.aburn@maryland.gov](mailto:george.aburn@maryland.gov).

Sincerely,

A handwritten signature in blue ink that reads "Ben Grumbles".

Ben Grumbles  
Secretary

cc: George (Tad) S. Aburn, Jr., Director, Air and Radiation Management Administration

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Note that some states have introduced bills to regulate this pollution:

Rhode Island (<http://webserver.rilin.state.ri.us/BillText/BillText22/HouseText22/H7787.pdf> )

Connecticut (<https://cga.ct.gov/2023/TOB/S/PDF/2023SB-00302-R00-SB.PDF> )

New Hampshire (<https://legiscan.com/NH/text/HB128/2021> )

Also note that Mexico has very recently banned this practice:

<https://www.gob.mx/semarnat/prensa/la-experimentacion-con-geoingenieria-solar-no-sera-permitida-en-mexico>

On January 20, 2023, a Maryland draft of the Clean Atmosphere Act bill was submitted by e-mail to Delegate Charkoudian, which addresses regulatory gaps with regard to these two hazardous emissions.

### **Sources:**

<https://mmrjournal.biomedcentral.com/articles/10.1186/s40779-015-0033-6> (Effects of Microwave Radiation on Brain Energy Metabolism and Related Mechanisms)

[https://keith.seas.harvard.edu/files/tkg/files/weisenstein\\_et\\_al.\\_2022\\_an\\_interactive\\_stratospheric\\_aerosol\\_model\\_intercomparison.pdf?m=1653588568](https://keith.seas.harvard.edu/files/tkg/files/weisenstein_et_al._2022_an_interactive_stratospheric_aerosol_model_intercomparison.pdf?m=1653588568) (Efficient formation of stratospheric aerosol for climate engineering by emission of condensable vapor from aircraft [wiley.com])

<https://www.e-cep.org/journal/view.php?doi=10.3345/cep.2019.01494> (Health Effects of Electromagnetic Fields on Children)

<https://www.spandidos-publications.com/10.3892/wasj.2022.157#> (South Carolina 5G measurements – there are many 5G small cells in Annapolis!)

[https://icbe-emf.org/wp-content/uploads/2022/10/ICBE-EMF-paper-12940\\_2022\\_900\\_OnlinePDF\\_Patched-1.pdf](https://icbe-emf.org/wp-content/uploads/2022/10/ICBE-EMF-paper-12940_2022_900_OnlinePDF_Patched-1.pdf) (1980s-era FCC guideline is based on a 60-minute exposure on rats and monkeys)

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