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Social Justice, Climate, Trees, Birds and Bees: Reasons Why Montgomery County Should Not Vote To Open The Floodgates To Cell Towers in Our Neighborhoods!

By Marion Edey
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The Montgomery County County Council is set to vote on ZTA 19-07 , a new zoning amendment that would enable the telecom industry to put mini cell towers on every block in residential neighborhoods. Short cell tower could be as close as 30 feet from homes with no notice nor hearings!

1,500 letters have been sent to the Council opposing ZTA 19-07. Here are some of my reasons that I oppose this ZTA, a giveaway to Telecom.



Climate

5G is an energy hog. A 5G base station will consume about three times more energy than 4G--and there will be more of them. This inevitably means more greenhouse gas emissions. The Shift Project, a think tank of engineers and telecommunications experts, estimated in 2019 that digital communications were already responsible for 4% of global greenhouse gases, more than civil aviation--and that global digital energy demand is increasing by 9% every year, with dire consequences for the climate.

The Shift Project tells us that the greatest driver of digital energy demand is not need, but entertainment. Wireless should be used sparingly to supplement existing wired/fiber networks, not replace them. Otherwise, any energy savings will be overwhelmed by the inefficiency of the technology itself, and the tsunami of data produced as we digitize our machines, using ever more trivial applications offered by an industry eager to create new products and markets.

It's much more energy efficient to send data through wire or fiber than through air. A study published in the journal of the Institute of Electronic and Electronics Engineers concluded, "wireless technologies will continue to consume at least ten times more power than wired technologies, when providing comparable access rates and traffic volumes." See also the Maryland Matters Op-ed entitled “Allowing Unfettered Access to Build Cell Towers in the Name of 5G Is Bad Policy for Climate Policy” for more. .

Armageddon for the Birds and Bees

All living creatures have basic cellular processes that can be disrupted by radiation and electromagnetic fields (EMFs). But this is especially true for species that rely on the earth's electromagnetic fields for navigation. These natural signals are drowned out by the cacophony of all the EMFs we create. Insect populations are plummeting, especially pollinators. Bats and migratory birds are also in steep decline. Scientific researchers are pointing to radiofrequency radiation as a prime suspect, and a contributing cause of bee colony collapse disorder. Insects seem to be especially vulnerable to the 5G millimeter wavelengths. Medical doctors and scientists are warning of a wireless silent spring.

The Natural Resources Defense Council joined a lawsuit in an amicus brief asking for a full environmental review of the entire issue stating that “numerous scientific studies were available to the FCC if it had taken its environmental review responsibilities seriously. Instead, the FCC stuck its head in the sand and did not even mention many of these studies of potential environmental harm in its 2019 order.”

Environmentalists worked long and hard to get Montgomery County to ban neonicotinoid pesticides and create bee-friendly backyards. This work is increasingly important as more and more land is gobbled up by suburbs. But with cell towers on every block, all this work could be undone. We can kiss those suburban hives goodbye.

Urban Tree Canopy

A healthy urban tree canopy is crucial for keeping our cities cool. All those air conditioners we crank up are using hydrofluorocarbons, which are thousands of times more potent than carbon as a greenhouse gas. We don't want a vicious cycle where we have to use them more and more.

Because the new 5G millimeter waves are much weaker than the old ones, they require a direct line of sight. All trees and branches that get in the way will be removed. Pruning more than 25% of a tree will kill it. The D.C. chapter of the Sierra Club asked the City Council to delay small cell 5G deployment because of the aggressive pruning that could result and asked the Council to first develop a plan to protect urban trees.

Research indicates that trees, as well as animals, are affected by radiofrequency radiation and will often die in a few years if close to a cell tower.

Last year forty residents and protesters climbed trees in the town of Sizun, France, to block the installation of a 5G antenna belonging to the telecom company “Free” as loggers were proceeding to fell about twenty trees in an area where the antennas were to be located. Is this what awaits us? In the United States a federal judge denied a request from residents for a temporary restraining order to halt the cutting down of trees to make room for a 95-foot cell tower in New York. Court rulings worldwide have confirmed that internet connections seem to be more valued than trees.

The amendment offered by Councilmember Navarro is a good start but lacks meaningful protections for trees. The amendment should clearly state that trees cannot be removed nor pruned for cell towers. We can do better.

Social Justice

Who will suffer most from exposure to EMFs and the resulting health impacts? Poor communities of color. These neighborhoods are often densely populated, with people living in apartment buildings at the same elevation as the cell tower antennas. “Small” cell towers have been placed 27 feet in front of apartment buildings, yet no one--not the Department of Permitting Services nor the Montgomery County Tower Committee--raised any objection. They should have required mandatory conditional use hearings. But no hearings were ever held. Where is the oversight?

The county's Tower Committee, which grants these permits, rubber stamps applications with almost no oversight. The county routinely gives permits allowing the industry to load the roofs and upper walls of apartment buildings with cell antennas, yet the county does not ensure radiation measurements are done in the homes of those living closest to the antennas! If the review and oversight process is this broken, do we really want to give the industry even more discretion to put cell towers anywhere they please?

ZTA 19-07 will not solve the problem of the Digital Divide. It has no requirements or even incentives for the industry to bring services to underserved or rural communities. That's not where the money is, and the ZTA is designed simply to give the industry what it wants. A better solution is to build out and maintain our wired and fiber networks, which have long been neglected. The county already has a robust FiberNet program. It could subsidize fiber to facilities in low income neighborhoods, or better yet, insist that Verizon keep its promises to do the same.

Most big apartments already have a wired/fiber connection to the structure, but landlords often won't extend it to individual apartments. Just solving that problem would do more to help renters than will this cell tower ZTA.

The 5G roll-out could increase the divide between rich and poor, white and black. Resources will flow to the wealthy, while old networks starve. 5G will require new devices and speed the obsolescence of devices people have. Research shows a synergistic effect between toxic chemicals and cell tower's non-ionizing radiation. So again people exposed to other kinds of pollution will be more affected and are the most vulnerable.

For additional resources on that please see "Exploring Racial Equity and Social Justice Impacts of Cell Towers and ZTA 19-07" and "Testimony to House of Representatives Subcommittee" and "Montgomery County Needs Affordable Broadband Not 5G Cell Towers to Bridge the Digital Divide" published in the *Montgomery County Sentinel*.

Health

Several doctors including experts on DDT wrote the Governor of California stating that "There is a substantial body of evidence that this technology is harmful to humans and the environment. The 5G millimeter wave is known to heat the eyes, skin, and testes… Of particular concern are the most vulnerable among us—the unborn, children, the infirm, the elderly, and the disabled. It is also expected that populations of bees and birds will drastically decline."

FCC safety guidelines have not been updated for more than 20 years, and back then they considered only thermal impacts, not biological impacts. A roll-out of 5G will require much higher exposures to more intense millimeter waves that we have not experienced before. Over 250 scientists who have done research in this field are calling for stronger cell tower radiation exposure limits, citing cancer risks, genetic damage, neurological disorders, and more.

Thousands of doctors, scientists, and health professionals are calling for a halt to 5G. Berkeley Professor Dr. Joel Moskowitz explains why in *Scientific American*.

5G will increase ambient levels of wireless radiofrequency radiation. Peer-reviewed research has demonstrated a myriad of adverse effects from wireless radiofrequency radiation including increased brain cancer, DNA damage, oxidative stress, immune dysfunction, altered brain development, damaged reproduction, sleep changes, hyperactivity, and memory damage.

We know that radiofrequency radiation is not good for the brain. That's why doctors tell you not to hold your cell phone right next to your head. A ten year $30 million dollar study by the U.S. National Toxicology Program of the National Institutes of Health (NIH) using rats and mice exposed to 2 and 3G radiation found evidence of cancer--malignant gliomas in the brain and malignant schwannomas of the heart.

The Italian Ramazzini Institute study found lab animals exposed to radiation such as radiation from cell towers were also at greater risk of developing heart and brain tumors, the very same kinds as found by NIH!

Children's Health

Children are especially vulnerable because they have developing brains, and their brains absorb more cellular radiation than adult brains absorb. Children also have more active stem cells in their bodies. Research shows that stem cells are often more reactive to low levels of cellular radiation than other cells.

"The FDA and Centers for Disease Control have not reviewed the growing body of current research on how cellphone radiation might impact brain development. No U.S. agency ever has...It is therefore inappropriate and unsafe for Montgomery County to allow the installation of a 5G and new wireless networks so close to homes throughout the county," stated Dr. Jerome Paulson, a top U.S. children's pediatrician, past chair of Environmental Health Council of the American Academy of Pediatrics, Professor Emeritus of Pediatrics and of Environmental and Occupational Health at George Washington University School of Medicine and Health Sciences and George Washington University Milken Institute School of Public Health, who served on the Children's Health Protection Advisory Committee for the U.S. EPA, stated in an op-ed in *Maryland Matters* entitled "Children Deserve Safety Assurances When It Comes to Cellphone Radiation".

The American Academy of Pediatrics *Healthy Children*states, "In recent years, concern has increased about exposure to radio frequency electromagnetic radiation emitted from cell phones and phone station antennae. An Egyptian study confirmed concerns that living nearby mobile phone base stations increased the risk of developing:

- Headaches
- Memory problems
- Dizziness
- Depression
- Sleep problems

Short-term exposure to these fields in experimental studies have not always shown negative effects, but this does not rule out cumulative damage from these fields, so larger studies over longer periods are needed to help understand who is at risk. In large studies an association has been observed between symptoms and exposure to these fields in the everyday environment."

Motivation, Need, and Alternatives to this ZTA

The driving force behind the campaign to pass ZTA 19-07 is the fact that it is cheaper for the telecom industry to bring its wired/fiber network only to cell towers, rather than to our homes and offices.

97% of Montgomery County households already have wired/fiber access inside their homes. They should keep it. A broadband network bringing fiber to the premises is more energy efficient, safer, more robust in times of extreme weather, and provides better, more secure computer service!

A report by CTC Energy and Technology, commissioned by the Communications Workers of America, concluded that "Modern wireline broadband services are superior to wireless services in terms of capacity, reliability, and scalability." Additionally, "Mobile providers dramatically limit customer usage and exert significant control over how applications run on their networks... making mobile service far inferior and less usable for consumers than wireline broadband service."

As for the cost of maintaining and expanding these wired and fiber networks? We have already paid for it! Verizon has been charging Maryland ratepayers for 20 years to do precisely this. They promised to bring fiber to all homes by 2010 and never finished the job. They diverted the money to develop their wireless networks instead. Verizon may actually owe Maryland $2 billion or more.

This is a pattern around the country. Problems with the FCC cost accounting rules have enabled telecoms to charge their corporate expenses to state public utilities, making broadband look more expensive than it really is. A team of lawyers called the Irregulators helped New York City win a lawsuit against Verizon, recovering about $2.8 billion and requiring Verizon to provide fiber connections to 500,000 households.

Many cities have successfully restricted cell tower deployment. The Council members have more power, and less risk, than they know. The risk they should be caring most about is the risk to the people and environment.

If you want to get involved, please learn more at the coalition website and sign our petition here.

Call the County Council today to halt ZTA 19-07 until the Council has fully reviewed the issue.

-Marion Edey, founder of the National League of Conservation Voters