

The current draft Operating Permit (Draft PERMIT NO. RI-44-25) to limit air pollution emissions, monitor air pollution, test, keep records, and report on air pollution from a number of acknowledged stationary sources on the Pastore Center campus is thorough and in the best interests of the staff and visitors to the 35 State of RI buildings housed there. However, there is an additional source of air pollution on the campus that has not been acknowledged to date—radiofrequency/microwave (RF/MW) radiation from wireless infrastructure, also known as man-made electromagnetic fields (EMF). This comment will introduce evidence for the inclusion of this invisible pollutant in the Operating Permit going forward.

On page 63 of the draft Operating Permit, there is an excellent description of the need to protect personnel at the Pastore Center as well as the general public from injurious sources of air pollution:

“O. Emission of Air Contaminants Detrimental to Person or Property

“The permittee shall not emit any air contaminant which either alone or in connection with other emissions, by reason of their concentration or duration, may be **injurious to human, plant or animal life**, or cause damage to property or which unreasonably interferes with the enjoyment of life or property. [250-RICR-120-05-7.6]” (emphasis added)

<file:///C:/Users/ri4sa/Downloads/Pastore%20Draft%20Permit.pdf> p. 63

This description fits perfectly with the DEM’s Office of Air Resources mission, as stated on its website:

<https://storymaps.arcgis.com/collections/b276603243514a6f8baca25a7b537112?item=1>

“Our mission is to *‘preserve, protect, and improve the air resources of the state to promote public health, welfare, and safety, to prevent injury or detriment to human, plant, and animal life, physical property and other resources, and to foster the comfort and convenience of the state's inhabitants.’*” ... (emphasis in the original)

The story map goes on to say:

“In the first half of the 20th century, many of the environmental and health effects of the Industrial Revolution were still unknown. The deadly effects of uncontrolled air pollution from the dominance of coal, oil, and motor vehicles became better known through cases of smog in cities around the world. ...”

Just as the harmful health effects of infrastructure relying on fossil fuels went unrecognized for a lengthy period of time, so have the harmful health effects of wireless radiation been hidden from the general public for decades. However, scientific research has been ongoing throughout these decades and establishes harm to humans as well as to flora and fauna from this radiation, even though it is non-ionizing. This comment will provide sources of evidence for this assertion.

Now that cell phones have become ubiquitous in modern society, even in the hands of young children, it may be surprising that the telecom industry itself labels wireless radiation a pollutant, in the fine print:

“Wireless and non ionizing electromagnetic radiation are defined as a type of ‘pollution’ by wireless companies themselves. According to [pg. 10 of the Verizon Total Mobile Protection Plan](#), ‘Pollution’ is defined as ‘The discharge, dispersal, seepage, migration or escape of pollutants. Pollutants means any solid, liquid, gaseous, or thermal irritant or contaminant including smoke, vapor, soot, fumes, acid, alkalis, chemicals, **artificially produced electric fields, magnetic field, electromagnetic field**, sound waves, **microwaves, and all artificially produced ionizing or nonionizing radiation** and/or waste.’ We found similar definitions for pollution in the product protection plans for [AT&T](#), [Sprint](#), [Verizon](#), [T-Mobile](#) and [Asuria](#).” (emphasis added)

<https://ehtrust.org/electromagnetic-field-insurance-policy-exclusions/>

Again, according to the DEM/OAR story map, “Air pollution is the *presence or introduction into the air of substances that have harmful effects on human health and the environment.*” (emphasis in the original)

So, is there a credible body that has investigated the assertion that non-ionizing radiofrequency/microwave radiation emitted from wireless infrastructure and devices is biologically harmful? Yes—the legislature of the neighboring state of New Hampshire.

In 2019 HB 522 was passed into law in New Hampshire in record time with bipartisan support. This law called for a commission to study the environmental and health effects of evolving 5G [fifth generation] technology. The rationale as stated in the final report, which was published on November 1, 2020, was this:

“The Legislature, after hearing testimony of potential health risks and the political ramifications of small cell antennae being deployed on the public rights-of-way throughout New Hampshire, agreed that a Commission be formed to take a deeper look at this evolving technology.”

<https://gc.nh.gov/statstudcomm/committees/1474/reports/5G%20final%20report.pdf> (page 1)

The Commission met 13 times over the course of more than one year. Experts from many fields, including electrical/computer engineering, toxicology, and public health, gave testimony. None of the experts brought in to testify were financially compensated, except for the one representative from the telecom industry.

The Commission was tasked with investigating these eight questions:

- “1. Why does the insurance industry recognize wireless radiation as a leading risk and has placed exclusions in their policies not covering damages by the pathological properties of electromagnetic radiation?
2. Why do cell phone manufacturers have in the legal section within the device saying keep the phone at least 5mm from the body?
3. Why have 1,000s of peer-reviewed studies, including the recently published U.S Toxicology Program 16-year \$30 million study, that are showing a wide range of statistically significant DNA damage, brain and heart tumors, infertility, and so many other ailments, been ignored by the Federal Communication Commission (FCC)?
4. Why are the FCC-sanctioned guidelines for public exposure to wireless radiation based only on the thermal effect on the temperature of the skin and

do not account for the non-thermal, non-ionizing, biological effects of wireless radiation?

5. Why are the FCC radiofrequency exposure limits set for the United States 100 times higher than countries like Russia, China, Italy, Switzerland, and most of Eastern Europe?

6. Why did the World Health Organization (WHO) signify that wireless radiation is a Group B Possibly Carcinogenic to Humans category, a group that includes lead, thalidomide, and others, and why are some experts who sat on the Who committee in 2011 now calling for it to be placed in the Group 1, which are known carcinogens, and why is such information being ignored by the FCC?

7. Why have more than 220 of the world's leading scientists signed an appeal to the WHO and the United Nations to protect public health from wireless radiation and nothing has been done?

8. Why have the cumulative biological damaging effects of ever-growing numbers of pulse signals riding on the electromagnetic sine waves not been explored, especially as the world embraces the Internet of Things, meaning all devices being connected by electromagnetic waves, and the exploration of the number of such pulse signals that will be created by implementation of 5G technology?"

<https://gc.nh.gov/statstudcomm/committees/1474/reports/5G%20final%20report.pdf> (pages 4 - 5)

The New Hampshire Commission's 15 policy recommendations can be found on pages 9 to 17 of the report and are essential reading for public officials charged with safeguarding the health of the public as well as the health of Rhode Island's flora and fauna.

One might well ask, Haven't the federal agencies charged with safeguarding human health and the environment investigated potential harms from RF/MW radiation and deemed the technology safe? Tragically, the answer is NO. The Environmental Protection Agency was conducting research to ascertain the safety of wireless infrastructure in the mid 1990's. However, in 1996 when the revised

Telecommunications Act was passed and the guidelines for human exposure to radiofrequency radiation promulgated, the EPA's funding was cut and the EPA has never followed up. Note that no guidelines have ever been promulgated by any federal agency for the safety of flora and fauna.

“Previous to 1996 the EPA conducted robust research on electromagnetic radiation ([EPA Letter](#)) and was in development of safety limits for wireless radiation ([EPA Briefing](#)) but just as they were poised to issue these recommendations, the EPA lost all of their research funding and have done nothing since. In July 2020, the Director of the Radiation Protection Division of the EPA Lee Ann B. Veal wrote Theodora Scarato Executive Director of EHT that the EPA had no funded mandate to regarding wireless radiofrequency matters and that they are not aware of any developed safety limits or research reviews related to impacts of wireless on birds bees and the environment. [Read the letter](#) where the EPA stated their last research review was documented in their [1984 Report](#).”

<https://ehtrust.org/epa-recommendations-and-reports-on-cell-phones-radiofrequency-and-electromagnetic-fields/>

By 2013, the public's use of wireless devices had increased substantially. That year the FCC issued a Notice of Inquiry “concerning review of the 1996 guidance in response to new research and increasingly ubiquitous wireless devices.”⁶ In particular, the NOI sought comments on:

- (1) Whether revisions to exposure limits for RF were appropriate, including for children;⁷
- (2) How to better inform consumers making decisions about exposure;⁸
- (3) Whether to adopt new precautions in addition to the exposure limits;⁹ and
- (4) Revising how the FCC evaluates device and facility compliance with exposure limits.¹⁰”

<https://ehtrust.org/divided-d-c-circuit-remands-fcc-retention-of-1996-rf-limits/>

By 2019, despite having received 11,000 pages of testimony asserting biological harm from wireless radiation, the FCC decided to close the docket [No. 13-84], and declined to revise the 1996 guidelines. In response, several safe technology groups sued the FCC. On August 13, 2021,

“the United States Court of Appeals for the District of Columbia Circuit ruled in the historic case EHT et al. v. the FCC that the December 2019 decision by the Federal Communications Commission (FCC) to retain its 1996 safety limits for human exposure to wireless radiation was ‘arbitrary and capricious.’

“The court held that the FCC failed to respond to ‘record evidence that exposure to RF radiation at levels below the Commission’s current limits may cause negative health effects unrelated to cancer.’ Further, the agency demonstrated ‘a complete failure to respond to comments concerning environmental harm caused by RF radiation.’ The court found the FCC ignored numerous organizations, scientists and medical doctors who called on them to update limits and the court found the FCC failed to address these issues:

- impacts of long term wireless exposure
- impacts to children,
- the testimony of people injured by wireless radiation,
- impacts to wildlife and the environment
- impacts to the developing brain and reproduction.”

<https://ehtrust.org/in-historic-decision-federal-court-finds-fcc-failed-to-explain-why-it-ignored-scientific-evidence-showing-harm-from-wireless-radiation/>

As of December 5, 2025 the FCC has not responded to the court’s remand. To understand that the FCC is a captured agency, dominated by the industry it is supposed to regulate, see *Captured Agency: How the Federal Communications Commission Is Dominated by the Industries It Presumably Regulates* by Norm Alster, published by the Edmond J. Safra Center for Ethics at Harvard University in 2015, and available online for free.

In nearby Pittsfield, Massachusetts there has been an ongoing legal case regarding harm to families in a residential community when a cell tower was erected and activated adjacent to their homes in August, 2020. Almost immediately, more than a dozen people became ill. The residents brought their situation to the attention of the city and then to the Pittsfield Board of Health, which duly held meetings over many months at which experts in the fields of radiofrequency radiation and its health effects gave testimony. The Board of Health determined that indeed the cell tower was causing the residents significant health symptoms, and attempted to engage the telecom company in a dialog to solve the issue by moving the tower. Tragically for the residents made ill, the situation is still in litigation and the tower is still operating. In the course of the litigation process, the Massachusetts Association of Health Boards wrote a detailed Amicus Brief on behalf of the duty of the health board to protect the residents. This Amicus Brief sums up the situation and provides essential background information about the issue.

<https://mdsafetech.org/wp-content/uploads/2022/02/Amicus-Letter-MAHB-.pdf>

What are the stationary sources of pollution from wireless infrastructure on the Pastore Center campus?

According to the FCC National Broadband Map at the Pastore Center Location:

Fixed Broadband:

Broadband Availability**Availability Challenge**

Provider	Technology	Down (Mbps)	Up (Mbps)	Chall.
AT&T	Licensed Fixed Wireless	25	3	
HughesNet	GSO Satellite	100	5	
Starlink	NGSO Satellite	280	30	
T-Mobile	Licensed Fixed Wireless	100	20	
Verizon	Licensed Fixed Wireless	300	20	
Viasat Inc	GSO Satellite	100	3	
Business-only Service				
AT&T	Licensed Fixed Wireless	100	6	
Lightpath	Fiber to the Premises	10000	10000	
Verizon	Licensed Fixed Wireless	200	30	
Viasat Inc	GSO Satellite	50	4	

Mobile Broadband:

Outdoor Stationary | In Vehicle Mobile

Provider	3G	4G LTE	5G-NR
AT&T		✓	✓ 7/1
Project Genesis			✓ 7/1 ✓ 35/3
T-Mobile		✓	✓ 7/1 ✓ 35/3
Verizon		✓	✓ 7/1 ✓ 35/3

https://broadbandmap.fcc.gov/location-summary/mobile?version=jun2025&location_id=f99d4064-18b2-4e14-9e27-8c5b9b1db865&addr1=25+HOWARD+AVE&addr2=CRANSTON%2C+RI+02920&zoom=15.00&vlon=-71.462537&vlat=41.744877&env=0&tech=tech4g

Are any of these sources of wireless radiation pollution currently being monitored by the FCC or by the RI DEM/OAR? If Yes, where can the general public find this information? If not, why not?

Please keep in mind that human beings are not the only species that is adversely affected by man-made radiofrequency/microwave radiation. In regard to the non-human species with which we share this earth, the mission statement of the DEM/OAR makes clear that the safety of local flora and fauna comes under the jurisdiction of this state agency.

“Our mission is to ‘preserve, protect, and improve the air resources of the state to promote public health, welfare, and safety, to prevent injury or detriment to human, plant, and animal life, ...”

As has already been made clear, federal agencies such as the EPA and the FCC have taken no measures whatsoever to safeguard the well-being of plant and animal life. A recently published paper by recognized authorities on the effects of

man-made electromagnetic fields (EMFs) on flora and fauna urges policy action to protect the habitats of all species from this man-made radiation pollution.

“As the current 6th major extinction epoch proceeds ([116](#), [117](#)) inaction is no longer a defensible response. The unchecked proliferation of electromagnetic fields is compounding the already severe threats facing wildlife. If we effectively reduce ambient EMF exposures, it might give imperiled species continuing chances to recuperate and reverse population declines.

“Regulatory agencies must adopt science-based limits that take ambient low-intensity exposures into consideration, implement robust environmental assessments, and **treat nonionizing EMF as a biologically active pollutant**. The survival of countless species depends on how we respond today. (emphasis added) ...

“A government-wide response is urgently needed, one that recognizes **EMF as an air pollutant** and treats airspace as habitat through the new discipline of air ecology (or aeroecology). **Protecting this dimension of habitat is as critical as safeguarding land and water.**” (emphasis added)

Levitt BB, Lai HC, Manville AM II, Scarato T (2025). *Flora and fauna: how nonhuman species interact with natural and man-made EMF at ecosystem levels and public policy recommendations*. Front. Public Health 13:1693873. <https://doi.org/10.3389/fpubh.2025.1693873>

Man-made non-ionizing radiofrequency/microwave radiation/electromagnetic fields emitted from wireless infrastructure such as cell towers and small cell antennas on utility/light poles have adverse biological effects on humans, flora, and fauna. These invisible emissions are an air pollutant. The federal agencies which should have been prioritizing human and environmental health (the EPA and FCC) have not done so. It is up to local and state agencies to fulfill their mission to prevent harm to residents, plants, trees, and wildlife by acknowledging the threat from wireless infrastructure and monitoring, recording, and reporting on emissions from the wireless infrastructure within their jurisdiction.

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