



# EPIC

Electromagnetic  
Pollution Illnesses  
Canada Foundation

[www.iexistworld.org](http://www.iexistworld.org)

July 12, 2023

**RF-EMR and other types of anthropogenic NIR are environmental pollutants that must be included in *Canada's Biodiversity Strategy 2030***—integrated into policies, regulations, planning and development processes. The biodiversity strategy would be incomplete without attending to this pervasive, environmental pollutant.

All life is interconnected so we appreciate work to protect biodiversity in Canada and to provide information reminding Canadians that biodiversity is essential for human survival.

### **Key Information: What. Why. How. Why now.**

- There are many types of non-ionizing radiation (NIR), including radiofrequency electromagnetic radiation (RF-EMR), that have been overlooked in considerations and measures necessary to protect biodiversity.
- Anthropogenic presence of these overlooked NIR pollutants may be termed “electrosmog.” These pollutants are biologically active, invisible, physical agents.
- Anthropogenic RF-EMR is purposely generated and purposely put into outdoor and indoor environments to be pervasive.
- Generation and distribution of RF-EMR is energy inefficient compared to available, viable, cost-saving substitutes able to serve the same purposes.
- Sources and emissions of anthropogenic RF-EMR are daily widespread, escalating, and becoming more and more pervasive—notably, intentionally generated and released from fixed and mobile land-based, marine, and orbital equipment as wireless network coverage and wireless signals/connections used as “wireless” information and communications technologies (ICT).
- Urgently—due to ubiquitous exposures to biota and ecosystems, with consequent acute and chronic harms, premature ageing, and premature deaths—regulatory action is necessary to initiate and continuously improve **meaningful** control, reduction and elimination of emission sources, emissions and exposures.
- Urgently—due to significant energy-use inefficiencies—regulatory action is necessary for all stakeholders to preferentially use and continuously improve available, viable substitutes that will support the Canadian vision to protect biodiversity.
- Urgently—due to the ubiquity of exposures and the current gross lack of awareness, and because most persons and organizations immediately when made aware **can** instantly and habitually, easily, at zero-cost significantly (and without sacrificing needs) control, reduce, and eliminate emission sources and emissions, i.e., effectively reducing their electrosmog footprints and both firsthand and secondhand exposures—prominent educational campaigns must be developed and ongoing delivered to the general public, school curricula, workplaces, environmental stewards, manufacturers/sellers of NIR, all levels of government (including collaboratively internationally), et al.

**Modernizing awareness about “electrosmog” & how to prevent it. For health & for the environment.**

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There are past and new damages and premature deaths in ecosystems, flora and fauna (including humans) that could have been prevented, and **can** be prevented if precautionary and cautionary measures (e.g., applying the ALARA principle of “as low as reasonably achievable”), and safer substitutes, would be implemented and widespread—instead of “electrosmog” being widespread and continuously densified.

Leadership in understanding and preventing “electrosmog” will benefit all species and ecosystems—in flora and fauna (including humans) reducing physical stressors, disease, illness, injury, dysfunction, detriments to quality of life, premature ageing, and premature deaths. Such attention can beneficially improve organisms’ and ecosystems’ resilience to chemical pollutants [n.b. the synergistic effects of some mixtures of microwaves (a type of NIR/RF-EMR) and various chemical compounds is well-known and commercialized].

Electromagnetic Pollution Illnesses Canada Foundation recognizes that nature itself has the right to a healthy environment. We recognize the importance of natural spaces being green, being wild. Beaches, parks, waterways, clean air, and hiking trails can provide physical and mental health and healing for vulnerable persons, and for non-human species.

**Electromagnetic Radiation is a form of Air Pollution**

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<p><b>Smog</b> <small>(chemical)</small></p>					
<p><b>Electro-smog</b> <small>(electromagnetic)</small></p>					
	<small>stationary sources</small>	<small>mobile sources</small>	<small>indoor</small>	<small>behaviour</small>	<small>wearables</small>

Dr. Magda Havas. 2022.  
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Electrosmog prevention must be included in pro-biodiversity interventions to prevent an unfortunate tipping point contributing to species decline and possibly extinctions. In order to survive moment to moment, throughout their lifecycles, all species must be able to detect and utilize the natural forms of NIR provided by Earth, Sun, and Universe. For example, research evidence concludes that anthropogenic RF-EMR can catastrophically interfere with the natural NIR-dependent wayfinding abilities of pollinators and migratory birds. Evidence of harm is clear at extremely low exposure levels; yet standards are set only for human exposures. All species are naturally electromagnetic—designed by nature to receive, process, and generate natural NIR. Anthropogenic NIR has different physical properties that can overwhelm or interfere with natural NIR.

**You care about the environment.**

**ELECTROSMOG and CHEMICALS** pollute the same places, the same lives. That's humans, other animals, plants, and the environment.

**RESEARCH** finds electrosmog worsens chemical exposures in animals (including humans).

**TO BE ALIVE**, all life at every moment must receive natural types and natural densities of electromagnetic radiation (EMR) that are emissions from the Sun, Earth, and Universe.

**TO BIOLOGICALLY FUNCTION**, each lifeform makes natural EMR. Common emissions of electrosmog (artificially-generated EMR) are air pollution that interferes with natural biological processes — just as chemical emissions are pollution.

**THE GOOD NEWS...** Electrosmog pollution does not persist in the environment after each emission source is turned off. The result is immediate air quality improvement and reduction of harms to humans, other animals, and flora exposed to chemical pollution.

**Be "electrosmog" aware & reduce it.**



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Thousands of independent, scientific, peer-reviewed studies reveal that anthropogenic RF-EMR can adversely impact living species, interrupting a lifeform's natural, biological, intercellular and intracellular communications, including disturbing the normal electromagnetic functions of the heart and brain. Here are some authoritative published compendiums:

This white paper clearly summarizes adverse impacts RF-EMR can have on flora and fauna, and solutions—accessed here (view or download):

<https://preventcancer.ca/submissions/protect-birds-bees-and-trees-include-anthropogenic-radiofrequency-electromagnetic-radiation-in-canadian-environmental-protection-act-cepa-amendments/>.

ECCC produced a report in November 2020, “Canadian Environmental Protection Act (1999): Considerations of electromagnetic fields (radiation) and biota.”

Low-level EMF effects on wildlife and plants: What research tells us about an ecosystem approach. Levitt BB, Lai HC, Manville AM 2nd. *Front Public Health*. 2022 Nov 25;10:1000840. doi: 10.3389/fpubh.2022.1000840. eCollection 2022. PMID: 36505009 Free PMC article. <https://pubmed.ncbi.nlm.nih.gov/36505009/>

See multilingual website <https://wirelessenviroimpacts.science/> “Electromagnetic Radiation from Modern Technologies Threatens Biodiversity”

Effects of non-ionizing electromagnetic fields on flora and fauna, part 1. Rising ambient EMF levels in the environment. Levitt BB, Lai HC, Manville AM. *Rev Environ Health*. 2021 May 27;37(1):81-122. doi: 10.1515/reveh-2021-0026. Print 2022 Mar 28. PMID: 34047144 Review. <https://pubmed.ncbi.nlm.nih.gov/34047144/>

Effects of non-ionizing electromagnetic fields on flora and fauna, Part 2 Impacts: how species interact with natural and man-made EMF <https://pubmed.ncbi.nlm.nih.gov/34243228/>

Effects of non-ionizing electromagnetic fields on flora and fauna, Part 3. Exposure standards, public policy, laws, and future directions. Levitt BB, Lai HC, Manville AM. *Rev Environ Health*. 2021 Sep 27;37(4):531-558. doi: 10.1515/reveh-2021-0083. Print 2022 Dec 16. PMID: 34563106 Review. <https://pubmed.ncbi.nlm.nih.gov/34047144/>

As Levitt, Lai and Manville urge, **“It is time to recognize ambient EMF as a novel form of pollution and develop rules at regulatory agencies that designate air as 'habitat' so EMF can be regulated like other pollutants. Long-term chronic low-level EMF exposure standards, which do not now exist, should be set accordingly for wildlife, and environmental laws should be strictly enforced.”**<sup>1</sup>

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<sup>1</sup> <https://pubmed.ncbi.nlm.nih.gov/34243228/>

We urge you to include NIR electrosmog pollutants in *Canada's Biodiversity Strategy 2030*, and to promote/regulate/create guidelines/incentivize wireline technologies that connect without fueling wireless-emitting equipment in the biosphere, so all species can survive and thrive.

We are called to **act** with respect and concern for all life. As stewards of this earth, we must act **today**.

Sincerely,

Barbara Payne, President

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[in collaboration with Shelley Wright, Director, Canadian Educators for Safe Technology]

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**Electromagnetic Pollution Illnesses Canada Foundation (EPIC) is a volunteer-based national not-for-profit organization.**

- We modernize public awareness about everyday “electrosmog” and how to prevent it.
- Conscious choices reduce emissions, firsthand and secondhand exposures, and related injuries, illnesses, and environmental harms.
- We promote e-Hygiene, PracticeSafeTech, education, and kindness in creation of healthier indoor and outdoor environments.
- And we connect persons affected by electrosmog to various resources.

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