



Wireless Technology Risks & Safer Solutions

Cece Doucette

January 17, 2022

Cece Doucette, MTPW

- ▶ Helped Ashland, MA become first-in-nation with [Best Practices for Mobile Devices](#), 2014
- ▶ Introduced [legislation](#) in MA & testified in NH
- ▶ Co-founder, [Wireless Education](#), educational non-profit
- ▶ Co-founder, [Massachusetts for Safe Technology](#)
- ▶ [Co-Chair, Technology Panel, Health in Buildings Roundtable Conference @ NIH](#)
- ▶ Speaker: EMF Medical Conference [2021](#)



Best Practices for Mobile Devices

- ❖ Turn off the device when not in use.
- ❖ Turn wifi on only when needed.
- ❖ Always place the mobile device on a solid surface.
- ❖ Viewing distance should be a minimum of 12 inches from the screen.
- ❖ Specific product information guides are available by request through the IT Department.



The Legal Fine Print

▶ See the Fine Print

▶ Settings

▶ General

▶ (About)

▶ Legal & Regulatory

▶ RF Exposure

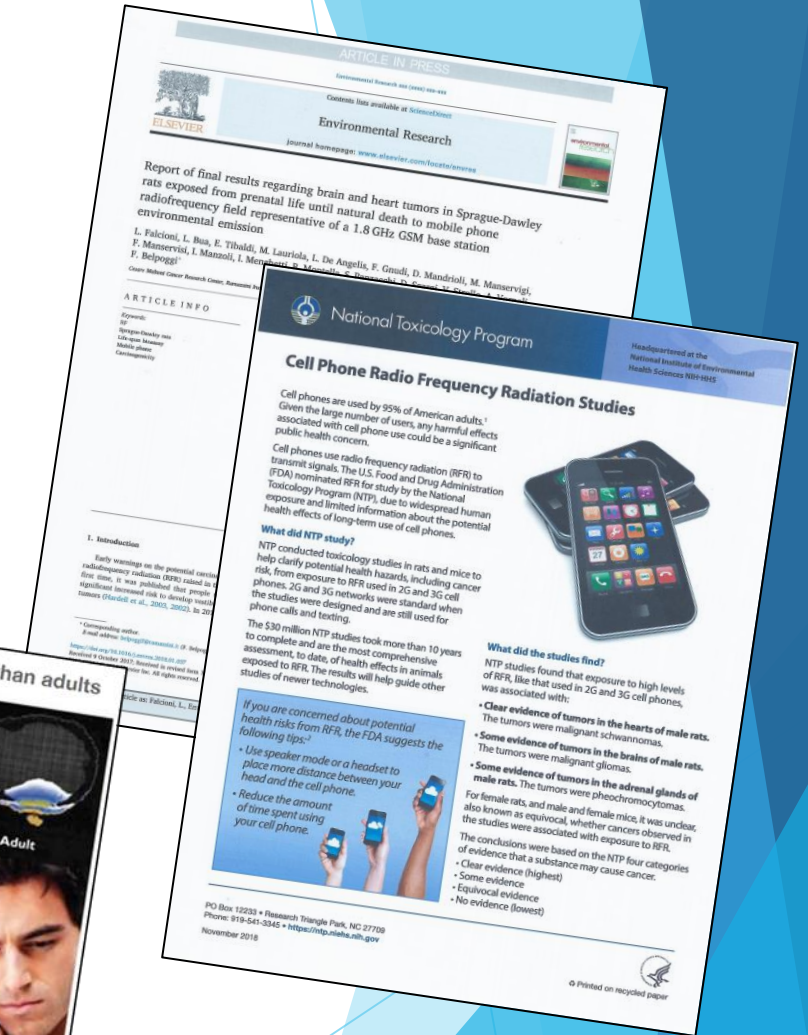
▶ Ashland & Newton library Acoustimeter Pittsfield Safe & Sound Pro II

▶ Local cable station 23-min. PSA



Science: Long-term Effects

- ▶ Child & Adult Cancers
- ▶ DNA Damage
- ▶ Infertility
- ▶ Neurotoxicity
 - ADD/ADHD
 - Autism
 - Alzheimer's
- ▶ Children are especially vulnerable




Science: Short-term Effects

▶ Electromagnetic Sensitivities (ADA)

- ▶ Insomnia
- ▶ Headaches
- ▶ Nosebleeds/earbleeds
- ▶ Fatigue
- ▶ Pain
- ▶ Skin abnormalities
- ▶ Irregular heartbeats
- ▶ Cognitive impairment
- ▶ Anger, behavior issues
- ▶ Anxiety, depression, suicidal ideation

Are your symptoms caused by your wireless devices?

Common symptoms of Microwave Sickness/Electro-Sensitivity



Brain
Headaches
Insomnia/Sleep Problems
Dizziness
Difficulty Concentrating
Memory Problems
Brain Fog
Fatigue

Eye
Pressure In/Behind Eyes
Eye Twitching
Deteriorating Vision
Vision Disturbances
Cataract

Heart
Palpitations
Arrhythmia
Chest Pain/Pressure
Difficulty Breathing
Low/High Blood Pressure

Ears
Tinnitus
Humming
Sharp Pain
Noise Sensitivity

Other
Adrenal Problems
Digestive Problems
Weight Loss/Gain
Tingling
Dehydration
Hair Loss
Flu Like Symptoms
Attention/Behavioral Issues

Skin
Skin Rash
Itching
Burning
Facial Flushing

Mood
Irritability
Depression
Anxiety

More information at www.WeAreTheEvidence.org

We Are The Evidence
Wireless Technology Harm - Antenna - Shield

Journal of Chemical Neuroanatomy 75 (2016) 43–51
Contents lists available at ScienceDirect
Journal of Chemical Neuroanatomy
journal homepage: www.elsevier.com/locate/jchemneu

Microwave frequency electromagnetic fields (EMFs) produce widespread neuropsychiatric effects including depression

Martin L. Pall

Professor Emeritus of Biochemistry and Basic Medical Sciences, Washington State University, 601 N. 41st Avenue, Portland, OR 97227-3122, USA

ARTICLE INFO

ABSTRACT

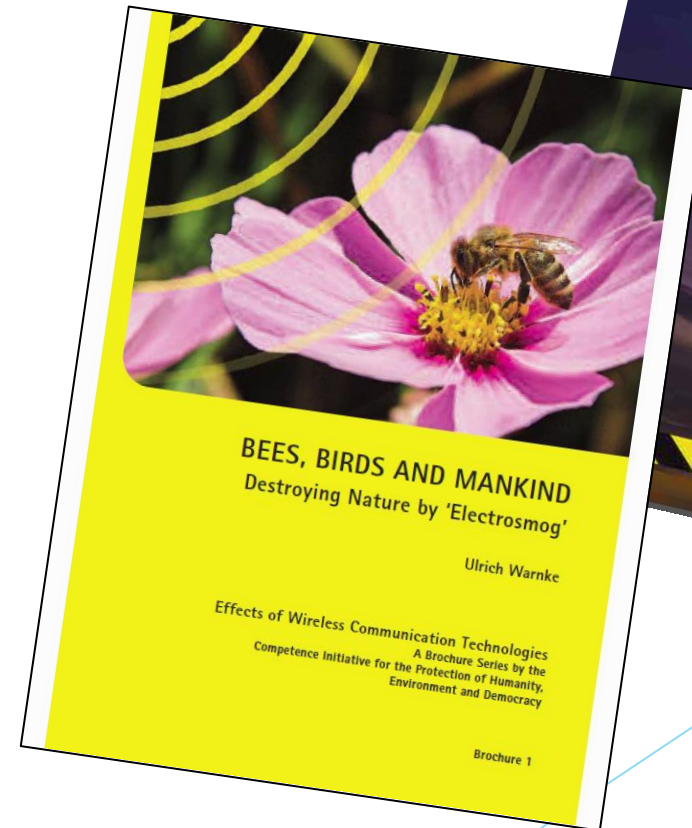
Non thermal microwave/lower frequency electromagnetic fields (EMFs) act via voltage-gated calcium channel (VGCC) activation. Calcium channel blockers block EMF effects and several types of additional evidence confirm this mechanism. Low intensity microwave EMFs have been proposed to produce neuropsychiatric effects, sometimes called microwave syndrome, and the focus of this review is whether these are indeed well documented and consistent with the known mechanism(s) of action of such EMFs. VGCCs occur in very high densities throughout the nervous system and have near universal roles in much of the impact of non thermal microwave exposures in experimental animals show that substantial changes. These may be generated through roles of VGCC activation, producing excessive neurotransmitter/neuroendocrine release as well as oxidative/nitrosative stress and other responses. Excessive VGCC activity has been shown from genetic polymorphism studies to have roles in producing neuropsychiatric changes in humans. Two U.S. government reports from the 1970s to 1980s provide evidence for many neuropsychiatric effects of non thermal microwave EMFs, based on occupational exposure studies. 18 more recent epidemiological studies, provide substantial evidence that microwave meters can each produce similar patterns of neuropsychiatric effects, with several of these studies showing clear dose-response relationships. Lesser evidence from 6 additional studies suggests that short wave, radio station, occupational and digital TV antenna exposures may produce similar neuropsychiatric effects. Among the more commonly reported changes are sleep disturbance/attention dysfunction, depression/depressive symptoms, fatigue/tiredness, dyspepsia, concentration/anxiety, headache, memory changes, dizziness, irritability, loss of appetite/body weight, restlessness/anxiety, nausea, skin burning/tingling/dermatographism and EEG changes. In summary, then, the mechanism of action of microwave EMFs, the role of the VGCCs in the brain, the impact of non thermal EMFs on the brain, extensive epidemiological studies performed over the past 50 years, and five criteria testing for causality, all collectively show that various non thermal microwave EMF exposures produce diverse neuropsychiatric effects.

© 2015 The Author. Published by Elsevier B.V. This is an open access article under the CC BY license (<http://creativecommons.org/licenses/by/4.0/>).

5

Science: Planetary Impact

- ▶ Pollinators
- ▶ Birds
- ▶ Energy consumption
 - Mineral extraction
 - Data warehouses
 - Networks
 - Personal devices
 - Streaming
 - Send/receive
 - Charging
 - Continuous app updates



Why Don't We Know?

- ▶ FCC: Captured Agency
- ▶ FDA: Conflict of Interest

5G CRISIS
A Project of Americans for Responsible Technology

5G BASICS SCIENCE TAKE ACTION NEWS STORE ABOUT

Join our Mailing List Donate

"We, the undersigned, hereby petition and demand that the FDA investigate the agency's public comments regarding the NTP's study of wireless radiation and the documented adverse health effects associated with chronic exposure. We believe the agency acquiesced to industry demands in downplaying the results of the study, and failed to complete the required risk assessment due to a conflict of interest on the part of Dr. Jeffrey Shuren, Director of the Center for Devices and Radiological Health. The American people have a right to know that scientists found "clear evidence" of cancer from such exposure, and therefore caution should be exercised with regard to wireless radiation."

Sign Petition

We are petitioning the FDA's Ombudsman for the Center for Devices and Radiological Health, Abiy Desta, to investigate the FDA's public announcements regarding the results of the NTP study and the safety of wireless radiation because of a clear conflict of interest by the Center's Director, Jeffrey Shuren.

Here's why:

In 1999 the U.S. National Toxicology Program ("NTP"), a division of the National Institutes of Health, initiated a study on the biological impacts of wireless radiation. According to the NTP, the purpose of the study was to "help clarify any potential health hazards, including cancer risk, from exposure to cell phone radiation, and to pave the way to better

Captured Agency:
How the Federal Communications Commission Is Dominated by the Industries It Presumably Regulates

by Norm Alster

www.ethics.harvard.edu

A Word of Caution: Misleading “Trustworthy” Sources

▶ New York Times

- ▶ Article, [“The 5G Health Hazard that Isn’t”](#)
- ▶ [Ireland: Violation of truth & accuracy code](#)
- ▶ Conflict of interest: [5G Verizon lab at NYT](#)

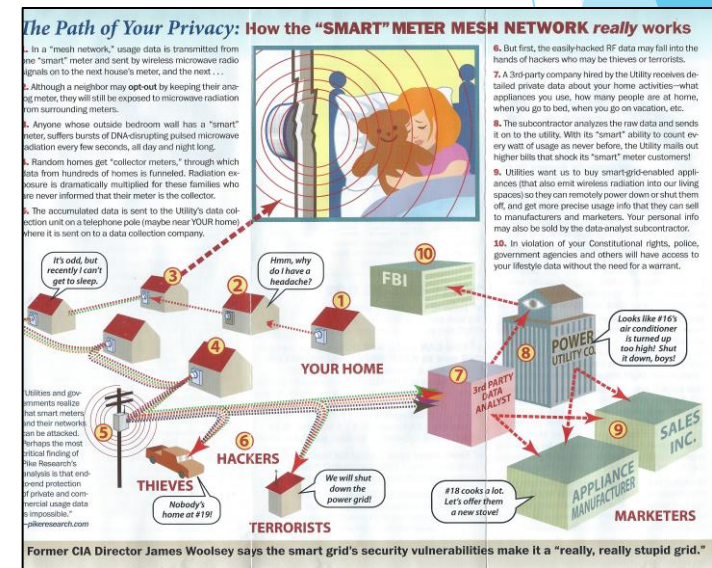
▶ World Health Organization

- ▶ [False EMF information still posted](#)
- ▶ [2020: EMF investigation reopened](#)
- ▶ [Two WHO groups: One industry-influenced, one science-based](#)



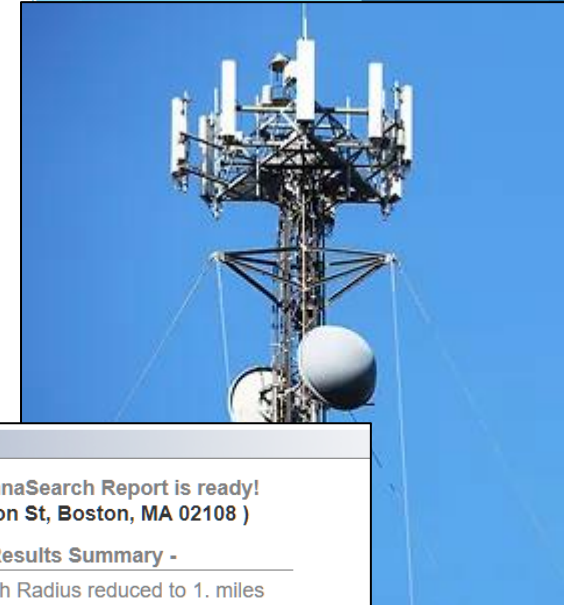
Source: Utility “Smart” Meters

- ▶ Pulse radiation continuously
- ▶ Can hop on house wires/pipes
- ▶ Fires, explosions, improper grounding
- ▶ Data harvesting, privacy issues
- ▶ Leading cause of sudden onset microwave sickness
- ▶ Environmental justice/[Worcester](#)
- ▶ [TedX Talk](#): Jeromy Johnson, engineer



Source: Cell Towers

- ▶ Examine the non-industry funded science
- ▶ AntennaSearch.com



Understanding EMFs Search this site

Navigation

- Introduction
- The Science
- Military Experts
- Doubts
- Cancers
- Infertility
- Impact on Children
- Wi-Fi in Schools
- Electrohypersensitiv... (EHS)
- Utility "Smart" Meters
- Cell Towers**
- 5G & IoT
- Planetary Impact
- Legal Issues
- Manufacturers
- For Health Care Providers
- For Engineers & Physicists
- For Municipal Leaders
- Media Limitations
- World Response
- Solutions
- Massachusetts EMF Bills 2019-20

Cell Towers

Cell Tower Scientific Studies

The following studies indicate cell towers are **biologically hazardous**:

- [Report of final results regarding brain and heart tumors in Sprague-Dawley rats exposed from prenatal life until natural death to mobile phone radiofrequency field representative of a 1.8 GHz GSM base station environmental emission](#) from the Ramazzini Institute in Italy concludes, "The RI findings on far field exposure to RFR are consistent with and reinforce the results of the [NTP study](#) on near field exposure, as both reported an increase in the incidence of **tumors of the brain and heart** in RFR-exposed Sprague-Dawley rats." This study, partially funded by the U. S. government, is the first large-scale study to show clear evidence of cancer risk from cell towers.
- [Epidemiological evidence for a health risk from mobile phone base stations](#) finds "**adverse neurobehavioral symptoms or cancer** in populations living **at distances < 500 meters from base stations.**" (1,640 feet)
- [Association of Exposure to Radio-Frequency Electromagnetic Field Radiation \(RF-EMFR\) Generated by Mobile Phone Base Stations with Glycated Hemoglobin \(HbA1c\) and Risk of Type 2 Diabetes Mellitus](#) indicates, "It is concluded that exposure to high RF-EMFR generated by MPBS is associated with **elevated levels of HbA1c**".

Your AntennaSearch Report is ready!
(24 Beacon St, Boston, MA 02108)

- Results Summary -

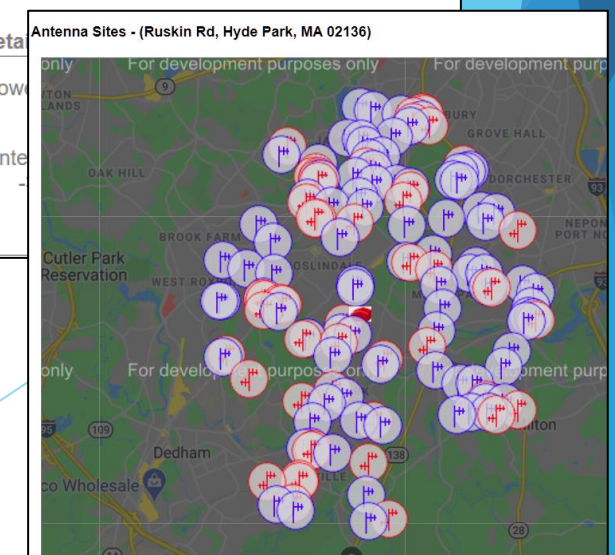
- Search Radius reduced to 1. miles (High number of Antennas Detected!)
- 70 Tower** Structures Detected!
- 1 New Tower** Applications Detected as of 10/05/20!
- 1184 Antenna** Locations Found!

- Deta

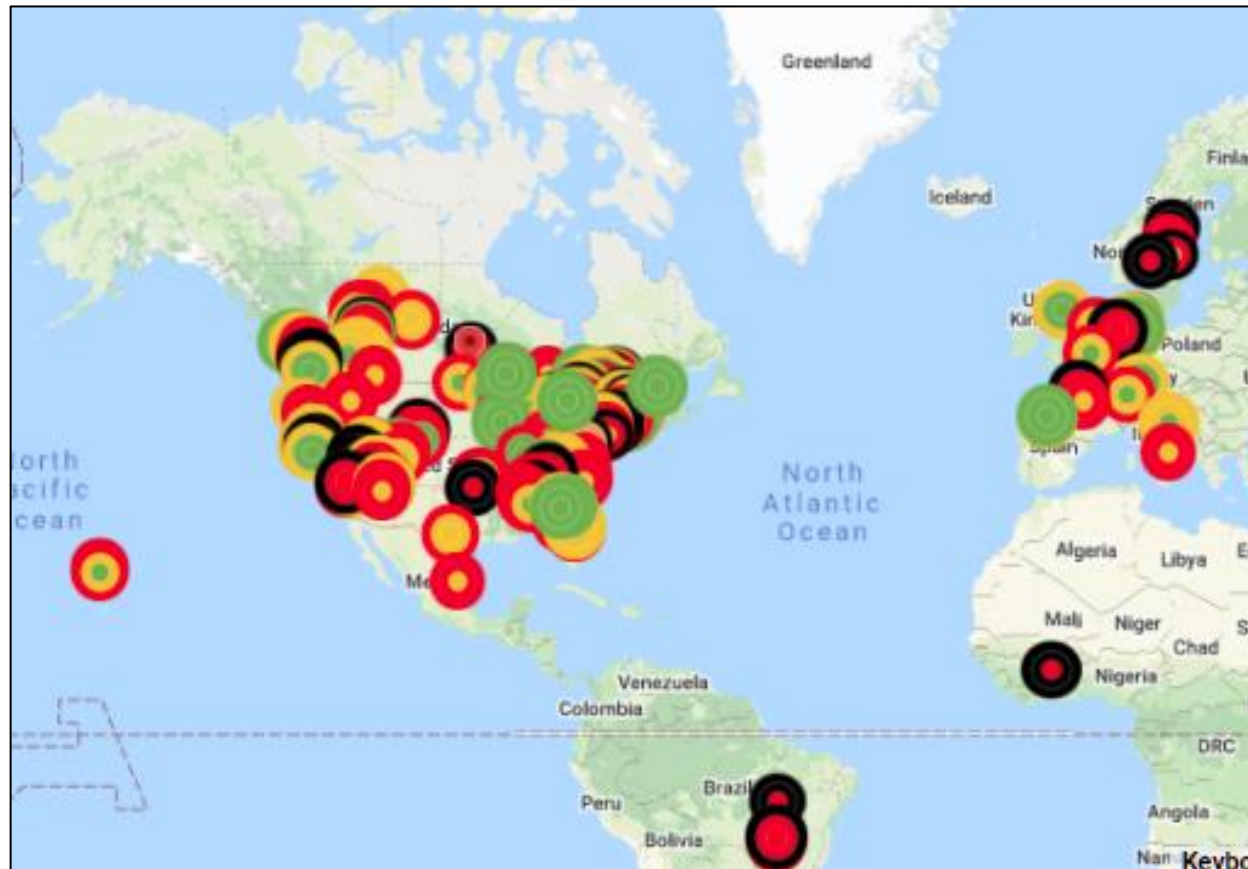
Antenna Sites - (Ruskin Rd, Hyde Park, MA 02136)

Click for Tow





Click for Ant



Global EMF Monitoring Project



Outdoor Exposures

RF Exposure		microW/m ²
v high		BLACK $\geq 100,000$
high		RED 10,000 – 100,000
medium		AMBER 1,000 – 10,000
low		GREEN $\leq 1,000$

[Salzberg Guidelines](https://globalemf.net/)
<https://globalemf.net/>

Outdoor Measurements

- ▶ **Goal:** Less than **1,000** microwatts/square meter
- ▶ Westmoreland, NH Fire Department = **417**
- ▶ Keene, NH = **7,460**
- ▶ Nashua, NH = **14,500**
- ▶ Concord, NH = **66,600**
- ▶ Stratham, NH = **108,000**
- ▶ North End Boston = **613,000**



Source: Cell Towers & Antennas

▶ [AntennaSearch.com](https://www.antennasearch.com)



MA State House:

- 3-mile radius
- 1,399 towers
- 4,412 antennas

24 Beacon St, Boston, MA 02133, United States Towers Antennas

Results Summary
1399 towers and 4412 antennas within a 3.0 mile radius of 24 Beacon St, Boston, MA 02133, United States.

Registered Towers

ID	Carrier/Owner	Distance
0	Obs Reit, Llc	0.1 mi
1	Winstar Wireless Fiber Corp.	0.2 mi
2	T-mobile	0.3 mi
3	One Boston Place, Llc	0.3 mi
4	Brookfield Financial Properties	0.4 mi
5	T-mobile	0.4 mi
6	Massachusetts Bay Transportation Authority	0.5 mi
7	Massachusetts Bay Transportation Authority	0.5 mi
8	Ofc Reit, Llc	0.6 mi
9	Ofc Reit, Llc	0.6 mi

A map of the Boston area showing a 3-mile radius circle centered on 24 Beacon St. The map is populated with numerous red dots representing cell towers and blue dots representing antennas. Major roads and landmarks like Tufts University, Harvard University, and the South End are visible.

Source: Cell Towers & Antennas

► [AntennaSearch.com](https://www.antennasearch.com)



NH State House:

- 3-mile radius
- 139 towers
- 254 antennas

107 N Main St, Concord, NH 03301, United States Towers Antennas

Results Summary

139 towers and 254 antennas within a 3.0 mile radius of 107 N Main St, Concord, NH 03301, United States.

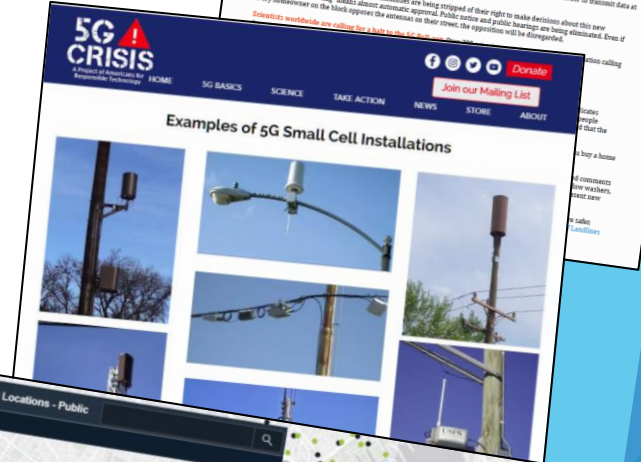
Registered Towers

ID	Carrier/Owner	Distance
0	Northern New England Telephone Operations Llc	0.4 mi
1	Concord, City Of	0.8 mi
2	New Hampshire Public Radio	0.9 mi
3	New Hampshire Family Radio Llc	1.2 mi
4	Concord Hospital	1.4 mi
5	New Hampshire, State Of Department Of Safety-state Police	1.5 mi
6	Star Granite Co.	1.5 mi
7	Sprint Nextel	1.9 mi
8	New Hampshire Public Radio	1.9 mi
9	Educational Media Foundation	2.0 mi

A map of Concord, New Hampshire, showing a 3-mile radius circle centered on 107 N Main St. The map displays various landmarks, including St. Paul's School, Concord Municipal Airport, and several highways (US-3, I-93, I-89, NH-101). Numerous red and blue dots represent the locations of cell towers and antennas within the radius.

Now Add 5G Small Cells

- ▶ [5th Generation technology](#)
- ▶ Promises faster entertainment downloads, smart cities, etc.; [buying the entertainment industry](#)
- ▶ 5G is the *addition* of short millimeter waves
- ▶ Uses existing 3G, 4G wavelengths to penetrate buildings, can't go through objects
- ▶ Clear-cutting trees
- ▶ Industry goal: millions of small cells at curb outside bedrooms in public access way, every 2-12 houses
- ▶ Never tested for safety ([Congressional hearing](#))
- ▶ ComputerWorld: [5G a Bad Joke](#)
- ▶ Verizon set to expose [100 million January 2022](#)
- ▶ Rubik/Brown paper: [Evidence for a connection between coronavirus disease-19 and exposure to radiofrequency radiation from wireless communications including 5G](#)



Social Norm Change

- ▶ Martin Luther King, Jr.
 - ▶ Public engages
 - ▶ Courts rule
 - ▶ Public policy enacted



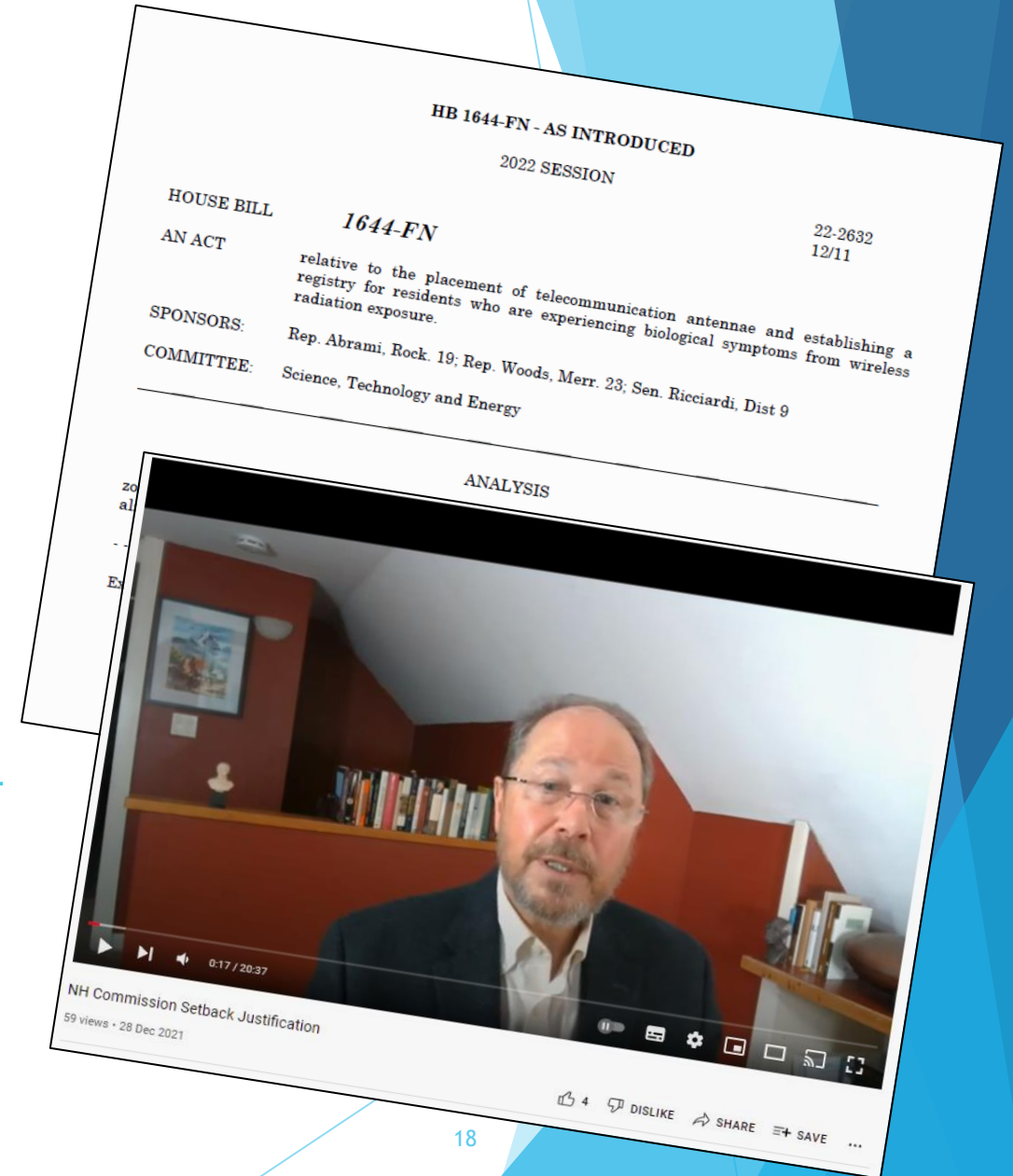
Leading Policy Solutions

- ▶ NH Rep. Patrick Abrami -- very pointed questions:
 - ▶ Why has the insurance industry put in RF exclusions?
 - ▶ Why does legal fine print say keep distance from the body?
 - ▶ Why are 1,000s of peer-reviewed studies ignored by FCC?
 - ▶ Why do FCC exposure limits not account for the non-thermal, non-ionizing, biological effects?
 - ▶ Why are US limits 100 times higher than other countries?
 - ▶ Why is the cumulative effect of increasing EMFs ignored?
- ▶ [New Hampshire 2019 law](#) in less than a year, groundbreaking [Commission Report](#) a year later
- ▶ Presentation by UNH [Dr. Kent Chamberlin](#) w/[slides](#)

The image displays three overlapping screenshots of legislative documents and a memorandum. The top screenshot is a 'General Court of New Hampshire - Bill Status System' page for bill HB522, titled 'establishing a commission to study the environmental and health effects of evolving 5G technology'. It shows the bill's status as 'SIGNED BY GOVERNOR' and lists key dates: 'Date Introduced' (1/3/2019), 'Date out of Committee' (3/14/2019), and 'Floor Date' (3/14/2019). The middle screenshot is the 'New Hampshire General Court Statutory and Study Committees' website, featuring a navigation menu with 'Main Page', 'Documents', 'Agendas', 'Minutes', and 'Reports'. The main heading is 'Commission to Study the Environmental & Health Effects of Evolving 5G Technology'. The bottom screenshot is a 'MEMORANDUM' from the State of New Hampshire General Court, dated November 1, 2020. It is addressed to the Governor, Speaker of the House, President of the Senate, House Clerk, and Senate Clerk. The subject is the 'Final Report on Commission to Study the Environmental and Health Effects of Evolving 5G Technology (RSA 12-K:12-14, HB 522, Ch. 260, Laws of 2019)'. The memorandum includes a request to find the final report and offers contact information for questions.

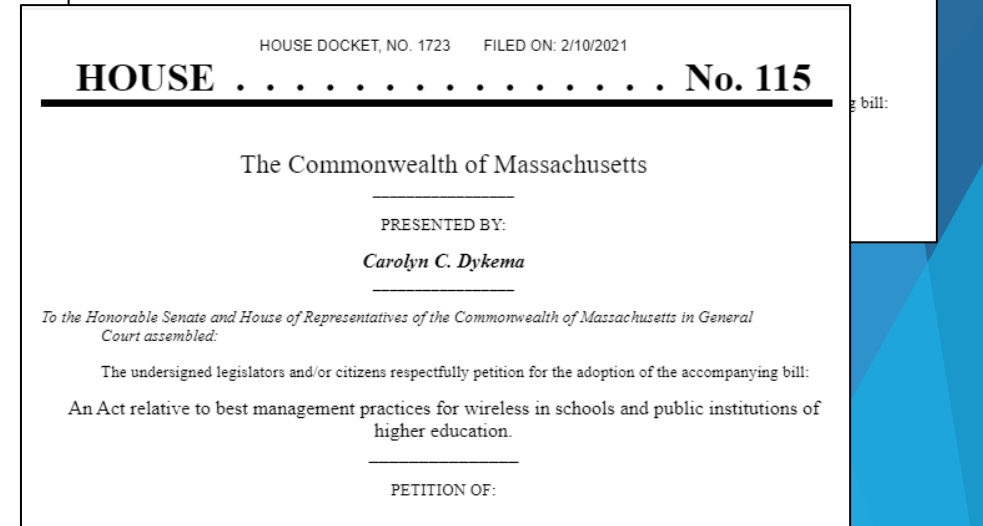
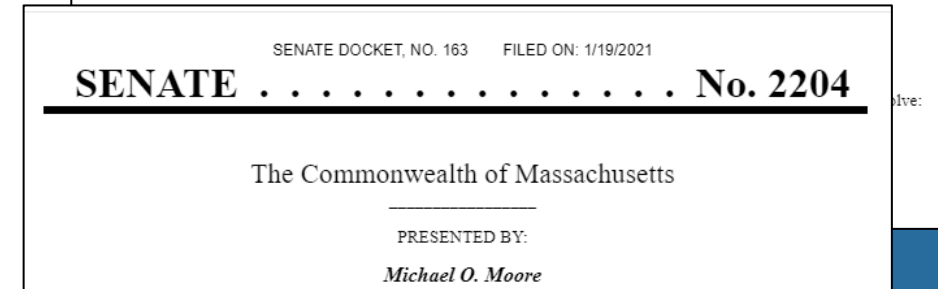
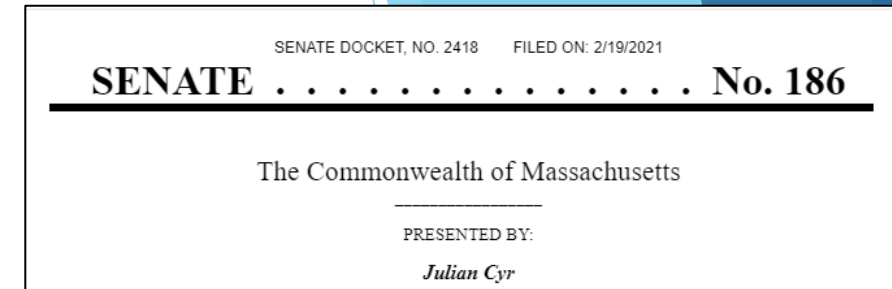
2022 NH Bill

- ▶ NH Rep. Patrick Abrami
 - ▶ [HB1644](#)
 - ▶ Bi-partisan
 - ▶ 1,640' Setback (500 meters)
 - ▶ Registry of harm, paid by industry
- ▶ Presentation by UNH [Dr. Kent Chamberlin](#) w/[slides](#)
- ▶ Hearing: In-person Concord, NH
January 18, 2022: House Committee on
Science, Technology and Energy



MA Policy Solutions

- ▶ [11 Sponsored bills this session](#)
 - ▶ Senator Julian Cyr's [S. 186](#) Commission bill written by Consumer Protection Committee
 - ▶ Senator Michael Moore's [S. 2204](#) to opt out of utility smart meters
 - ▶ Rep. Dykema's [H. 115](#) to address wi-fi in schools
 - ▶ [See hearing testimonies](#)



NY Policy Solutions

- ▶ Investigate 5G health & environmental risks
 - ▶ [Senate 5926](#): Senator Anna Kaplan (District 7)
 - ▶ [Assembly 06448](#): Tom Abinanti (District 92), Assemblywoman Jo Anne Simon (District 52), Assemblyman Steve Englebright (District 4)

STATE OF NEW YORK

5926

2021-2022 Regular Sessions

IN SENATE

March 23, 2021

Introduced by Sen. KAPLAN -- read twice and ordered printed, and when printed to be committed to the Committee on Internet and Technology

AN ACT establishing a commission to study the environmental and health effects of evolving 5G technology; and providing for the repeal of such provisions upon expiration thereof

A06448 Text:

ate and Assem-

at fifth gener-
increase device
finds a commis-
iated with 5G
t and potential

ry commission,
ntal and health
mission"), for
cts of evolving
5G" technology,
fifteen members
ted to 5G tech-
lic health, the
appointed by
ted to 5G tech-
lic health, the
appointed by
the biological
ernor.
ter in brackets
LBD08131-03-1

STATE OF NEW YORK

6448

2021-2022 Regular Sessions

IN ASSEMBLY

March 17, 2021

Introduced by M. of A. ABINANTI, ENGLEBRIGHT, SIMON -- read once and referred to the Committee on Governmental Operations

AN ACT establishing a commission to study the environmental and health effects of evolving 5G technology; and providing for the repeal of such provisions upon expiration thereof

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

1 Section 1. Legislative intent. The legislature finds that fifth gener-
2 ation, or 5G, wireless technology is intended to greatly increase device
3 capability and connectivity. Therefore, the legislature finds a commis-
4 sion is needed to examine the advantages and risks associated with 5G
5 technology, with a focus on its environmental impact and potential
6 health effects on citizens of our state.
7 § 2. Commission. There is hereby established a temporary commission,
8 to be known as the "commission to study the environmental and health
9 effects of evolving 5G technology" (hereinafter "the commission"), for
10 the purpose of studying the environmental and health effects of evolving
11 wireless technologies, including fifth generation or "5G" technology,
12 including the use of earlier generation technologies.
13 § 3. Membership. (a) The commission shall consist of fifteen members

MA Medical Society

Resolution I-20 A-106: Wireless Communications Public Safety Standards Reevaluation

- ▶ Sponsor: Lisa Nagy, MD
- ▶ Dr. Cindy Russell, Physicians for Safe Technology
- ▶ Dr. David Carpenter, WHO
- ▶ [Resolution](#)
- ▶ [Policy Statement](#)

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36

MASSACHUSETTS MEDICAL SOCIETY HOUSE OF DELEGATES

Item #: 8
Code: Resolution I-20 A-106
Title: Wireless Communications Public Safety Standards Reevaluation
Sponsor: Lisa Nagy, MD
Referred to: Reference Committee A
Mary Beth Mottl, MD, MPH, Chair

Whereas, An MMS objective is to advance patient health, well-being, and engagement, prioritizing the most critical individual and public health areas; and

Whereas, The MMS currently has no policy on wireless communication and public health; and

Whereas, Today's cell towers, 4G/5G small cell antennas, routers, cellular phones, tablets, wearables, devices, Internet of Things, and radiofrequency radiation are cumulative; and

Whereas, Scientists with a growing body of adverse health and non-ionizing microwave radiation are cumulative;

¹ Lai H. Biolinitiative Report
² California Medical Association Standards Reevaluation
³ California Medical Association Standards Reevaluation
⁴ Goyal et al. EURL
health problems and ill
⁵ Lear RA. The Root Cause
⁶ https://www.massachusettsmedicalsociety.org

1
2
3
4
5
6
7
8
9
10
11
12

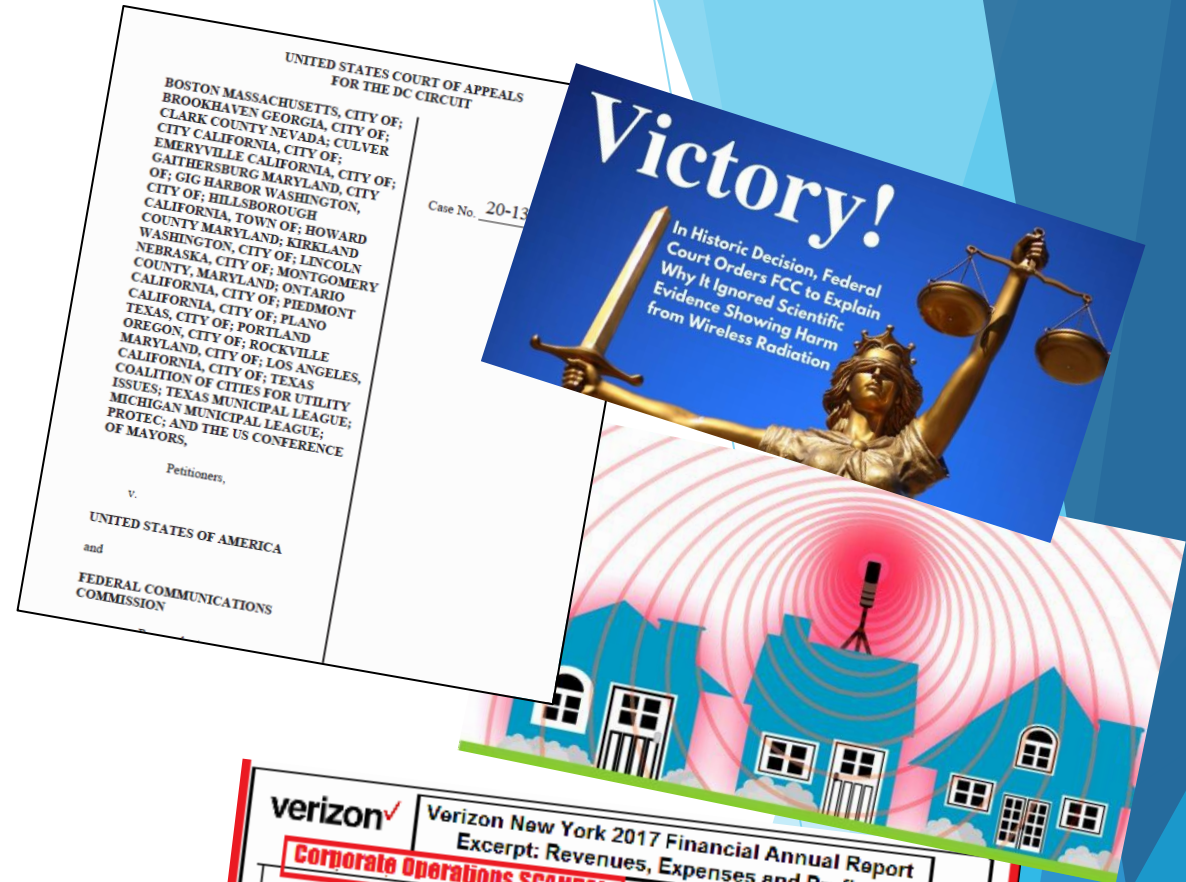
MASSACHUSETTS MEDICAL SOCIETY HOUSE OF DELEGATES (I-21)

FINAL HOUSE VOTES
REFERENCE COMMITTEE A: Public Health

Item #	Title	Code	Action	Page
1	Access to Standard Care for Nonviable Pregnancy	Resolution I-21 A-101	Adopted as Amended	1
2	Advocating for COVID-19 Vaccine Research Trials in Pregnant Women	CWH Report I-21 A-1	Adopted as Amended	2
3	Combating Racial Disparities in Maternal and Infant Health Outcomes	CMPW Report I-21 A-2	Adopted as Amended	3
4	Preventing Adverse Childhood Experiences (ACEs)	CPH Report I-21 A-3 [I-20 A-102]	Adopted	4
5	Physician Responsibility to Care for Dying Patients	OFFICER Report I-21 A-4 [A-21 A-102]	Refer to E, G, and PS for Report Back	5
6	Combating Housing Inequity during Public Health Emergencies	COL/CPH/CPRep/CEOH/CQMP Report I-21 A-5 [A-21 A-105]	Adopted as Amended	7
7	Wireless Communications Public Safety Standards	CPH/CEOH Report I-21 A-6 [I-20 A-106]	Adopted	8
8	Preventing Decreased Access to Health Care by Expanding Broadband Internet Access to Underserved Populations	Resolution I-21 A-102	Adopted as Amended	9
9	Resolution to Ensure Equitable Access to HIV and Hepatitis C Testing in the Jail and Prison Systems in Massachusetts	Resolution I-21 A-103	Adopted as Amended	10
10	Informing Physicians, Health Care Providers, and the Public of the Health Dangers of Fossil Fuel-Derived Hydrogen	Resolution I-21 A-104	Refer to the Board of Trustees for Decision	11
11	Development of Heat Standard to Protect Outdoor and Indoor Workers from Prolonged Heat Exposure	Resolution I-21 A-105	Adopted as Amended	12

Legal Solutions

- ▶ FCC Sued:
 - ▶ [IRREGULATORS v. FCC](#)
 - ▶ [Environmental Health Trust](#)
 - ▶ [Children's Health Defense](#)
 - ▶ [CHD OTARD Rule](#): Rooftop cell towers
- ▶ FDA Petition:
 - ▶ [Americans for Responsible Technology](#)
- ▶ [Fay School](#) ADA: Court recognizes non-thermal biological effects
- ▶ Chappaquiddick, Hull, Pittsfield, Centerville lawsuits
- ▶ EHS: [California Appellate Court](#) holds that Wi-Fi sickness is a disability



Verizon New York 2017 Financial Annual Report Excerpt: Revenues, Expenses and Profits

Item (a)	Total (b)	Nonregulated (c)	New York Local Service (d)	Access (e)
7 Total Operating Revenues	4,988,070,423	1,516,034,818	1,077,981,833	2,394,053,772
Operating Expenses				
Plant Specific				
Plant Non-specific	2,444,833,098	1,087,085,883	917,810,703	\$459,187,359
Corporate Operations	440,183,019	55,415,741	247,756,805	\$137,010,493
Total Operating Expenses	2,917,804,192	297,290,533	1,768,187,618	852,425,990
Net Operating Revenues	2,070,266,231	1,645,881,673	4,022,050,889	2,010,246,463
	(2,582,088,769)	172,948	(2,944,089,032)	351,627,317

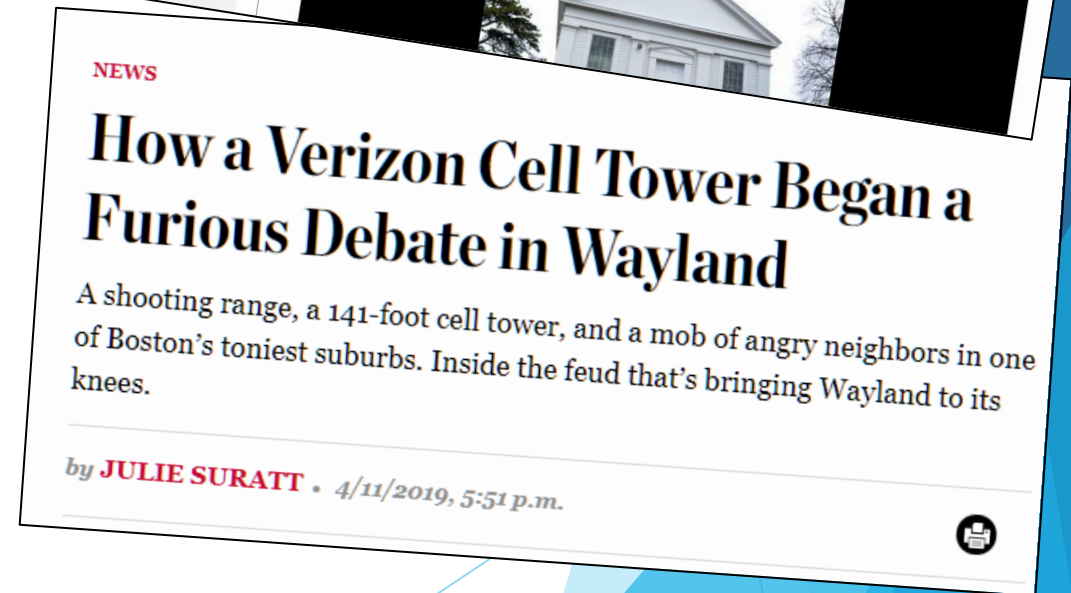
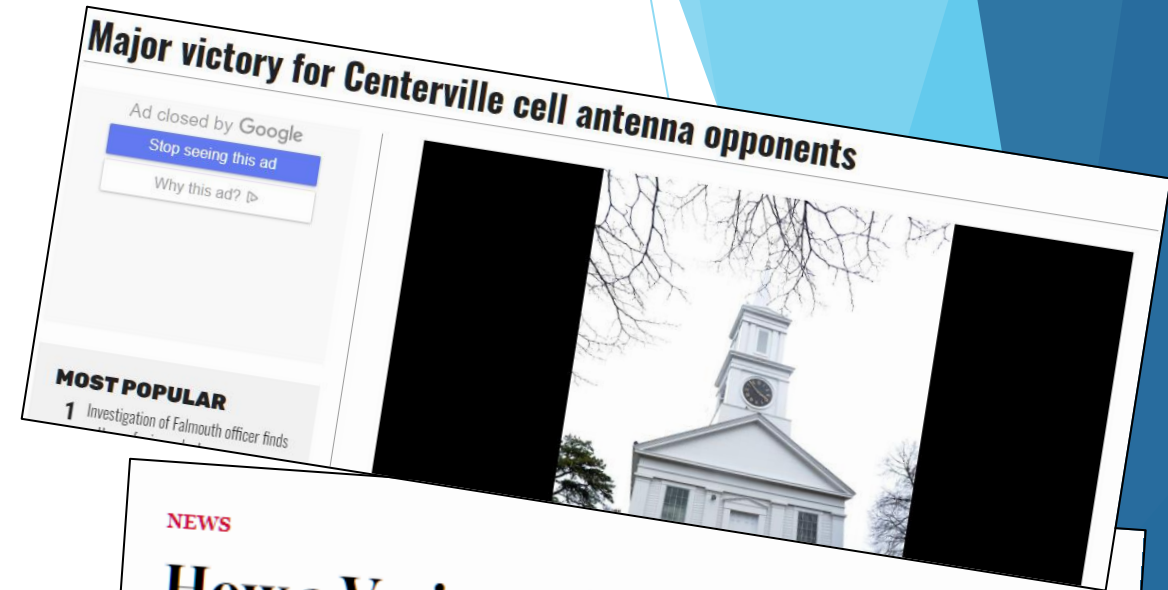
Annotations:

- Corporate Operations Scandal**: Points to the Corporate Operations row.
- Wireless Scandal**: Points to the Total Operating Revenues row.
- Billions for Broadband**: Points to the Plant Non-specific row.
- FCC Accounting Scandal**: Points to the Net Operating Revenues row.
- Tax Dodge**: Points to the Access row.

Public Taking Action

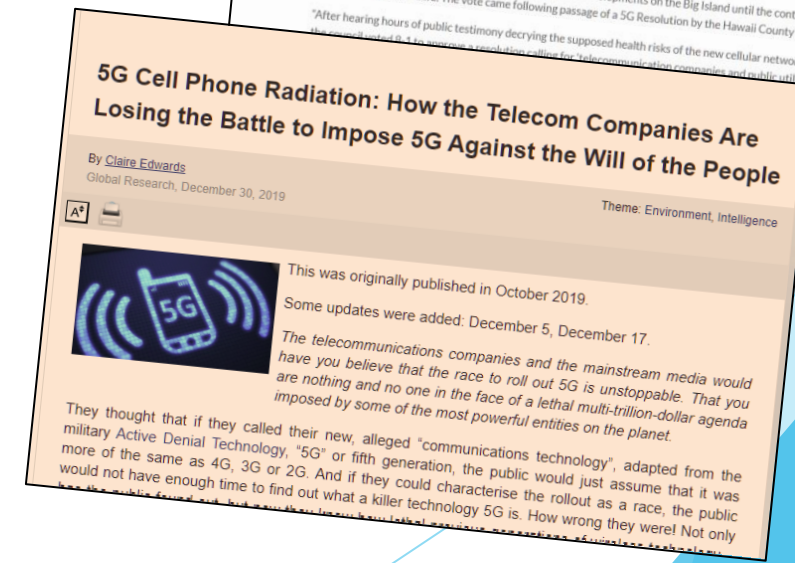
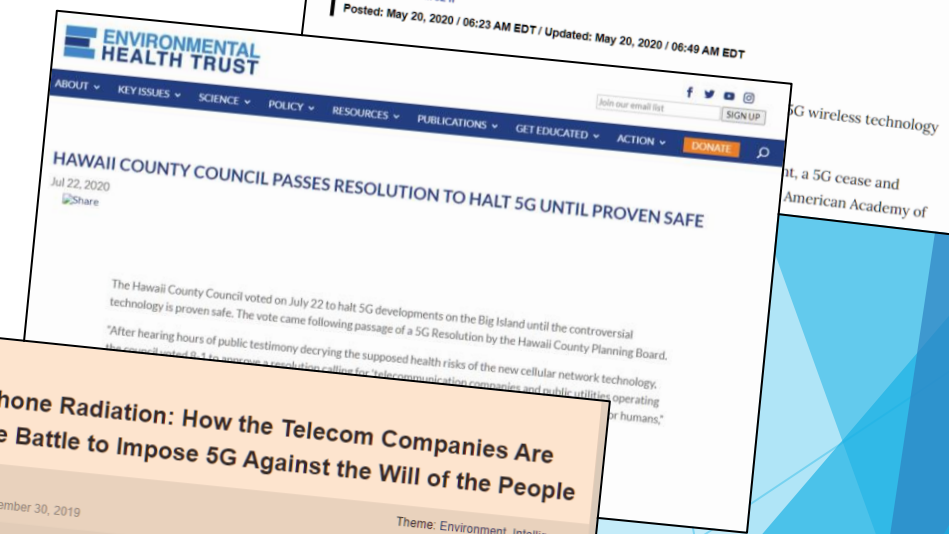
▶ Cell towers

- ▶ Shelburne, MA 1,500' setback in bylaw, 3,000' from schools
- ▶ Wayland 900' setback in bylaw
- ▶ Dover-Sherborn Regional won
- ▶ Concord relocating tower
- ▶ Petersham AT&T height waiver denied
- ▶ Centerville Concerned Citizens @ Cape Cod
- ▶ Holliston wireless antennas on power lines



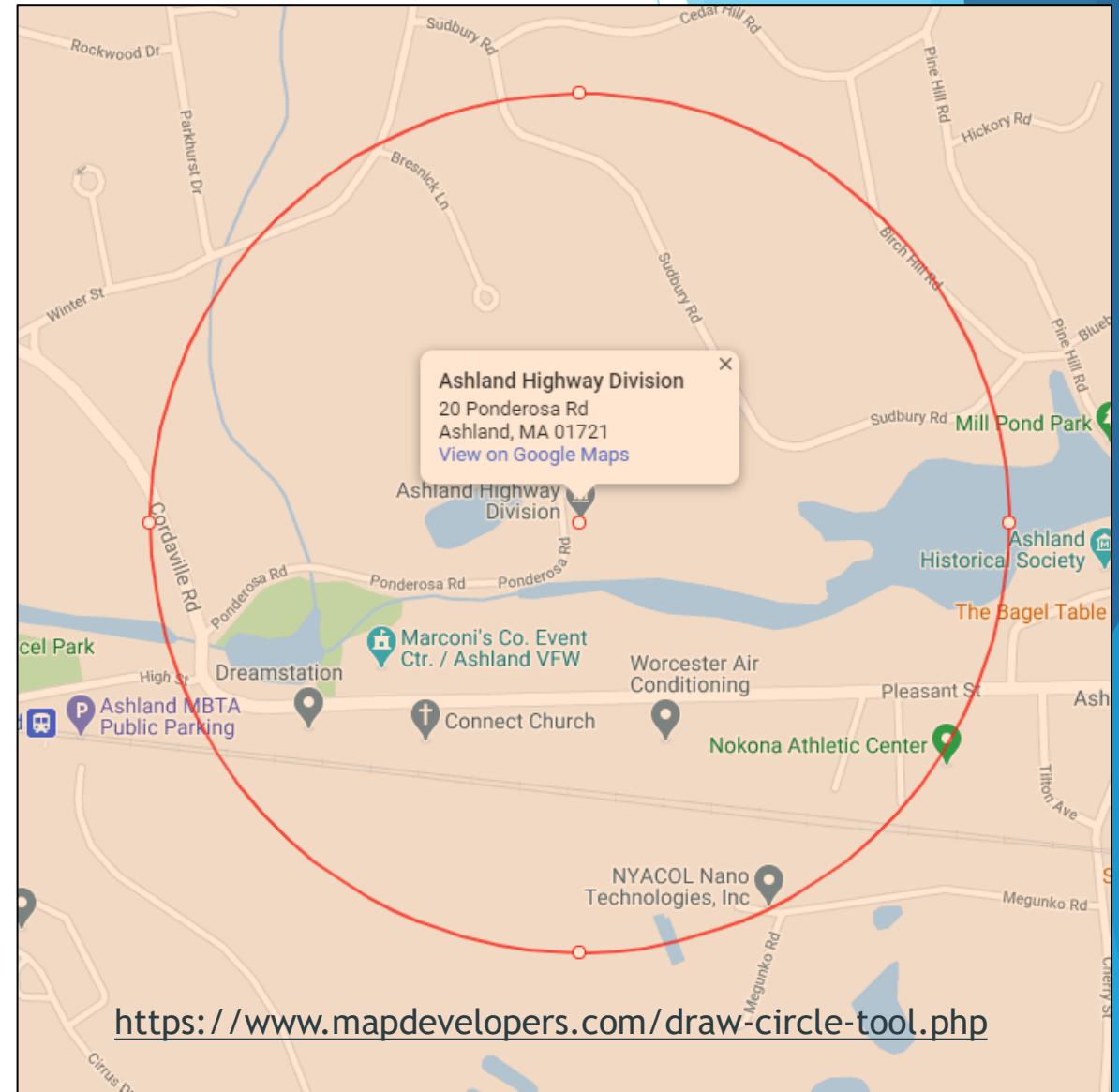
Public Servants Taking Action

- ▶ Easton, CT 5G moratorium
- ▶ Hawaii County bans 5G
- ▶ Bermuda temporary 5G moratorium
- ▶ Worldwide actions



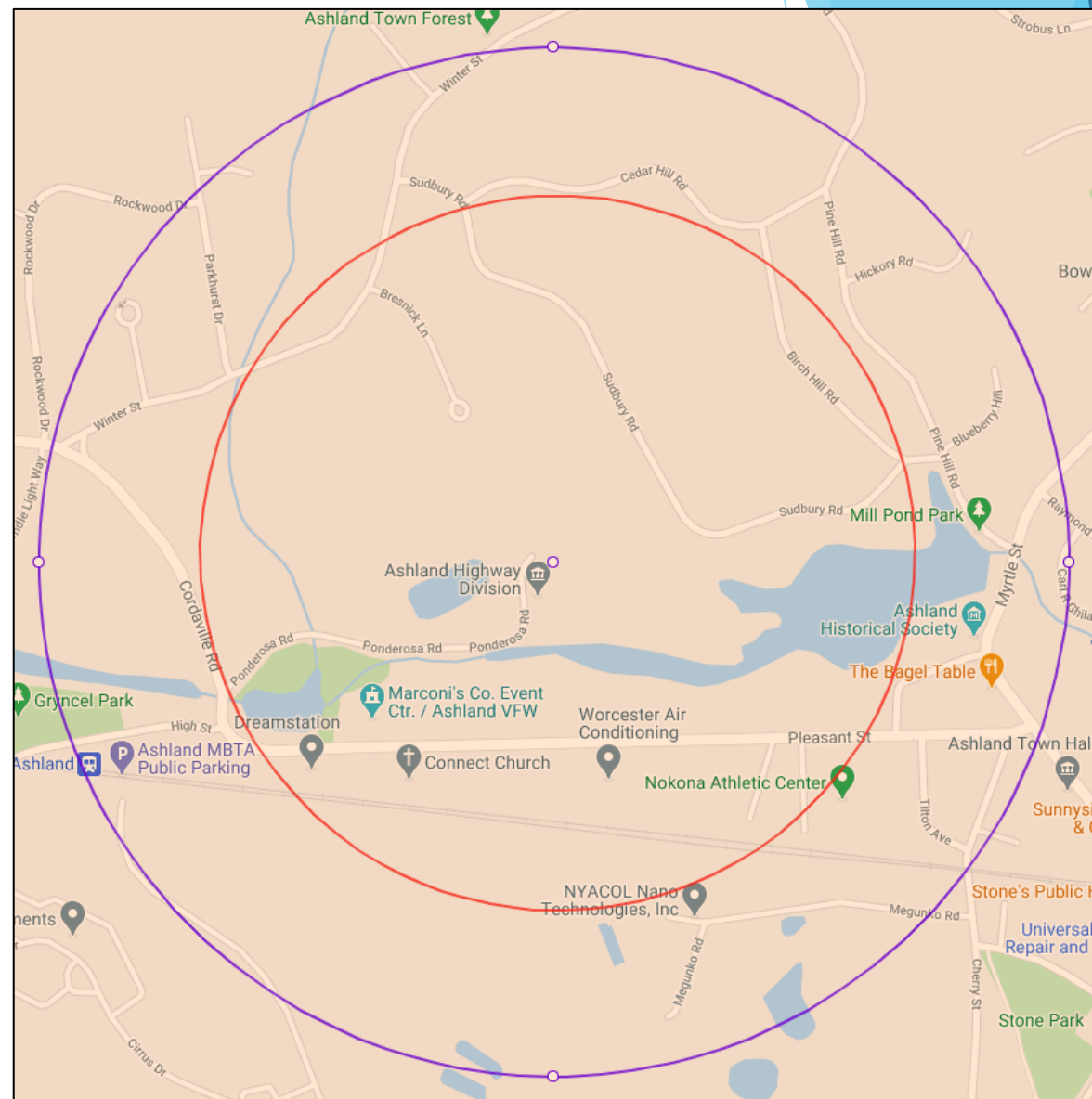
Science: Health Risks

- ▶ Ashland, MA Example
- ▶ [500 meters/1,640 feet](#)
- ▶ @ 135 Homes + Businesses
 - ▶ Sudbury Road
 - ▶ Birch Hill Lane
 - ▶ Bresnick Road
 - ▶ Cordaville Road
 - ▶ Ponderosa Road
 - ▶ Pleasant Street
 - ▶ Winter Street
 - ▶ Forest Avenue
 - ▶ Metcalf Avenue



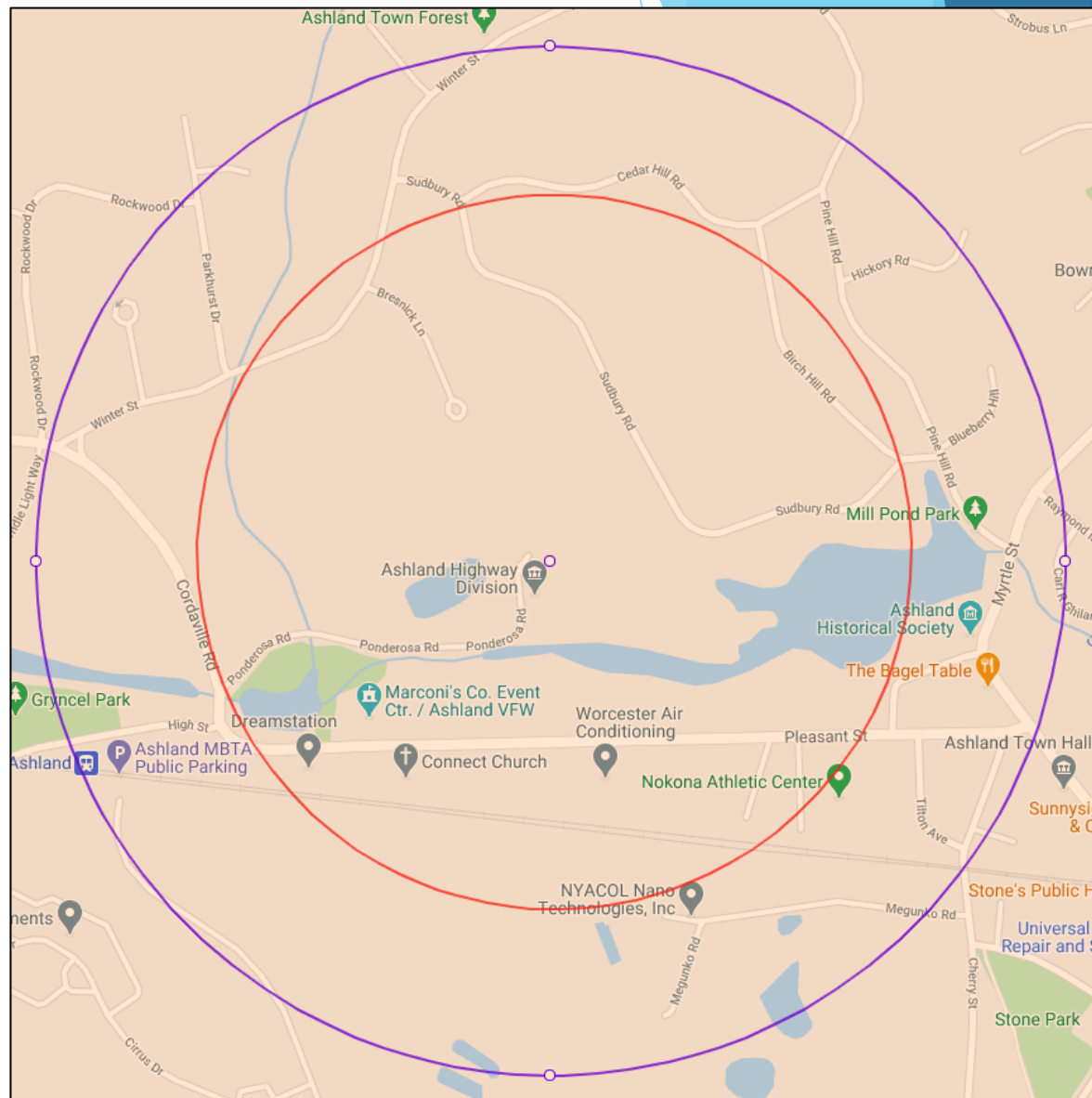
Property Values

- ▶ 720 meters/2,362 feet
- ▶ All of the preceding plus:
 - ▶ Parkhurst Drive
 - ▶ Harrington Drive
 - ▶ Shepherd Lane
 - ▶ Pine Hill Road
 - ▶ Hickory Road
 - ▶ Cedar Hill Road
 - ▶ Blueberry Hill
 - ▶ Myrtle Street
 - ▶ Water Street
 - ▶ Tilton Avenue
 - ▶ Megunko Hill
 - ▶ Raymond Marchetti Street
 - ▶ Carl R Ghilani Circle



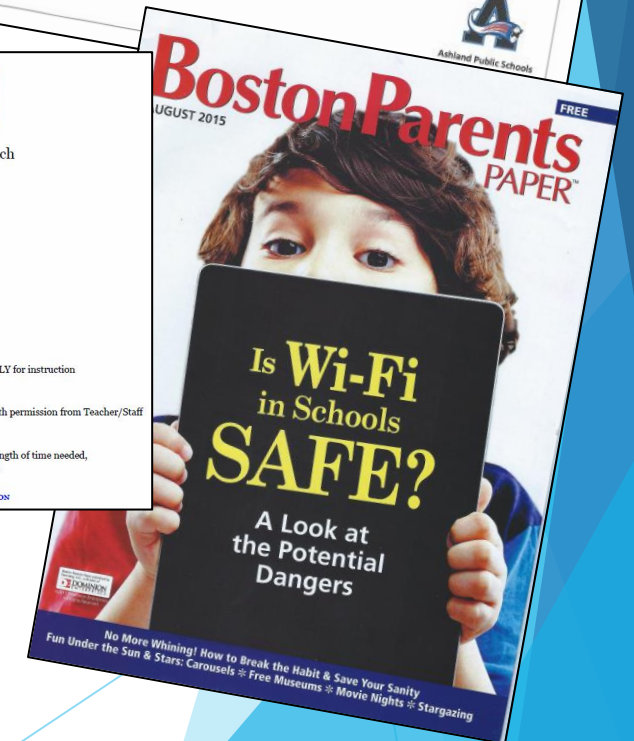
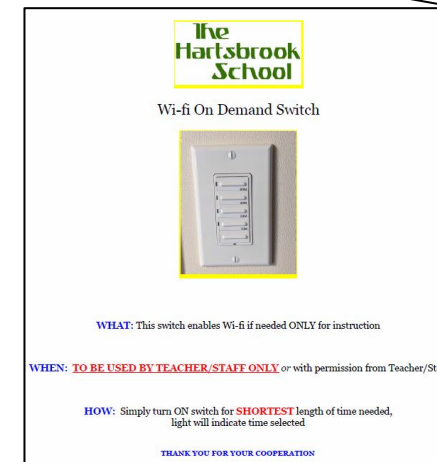
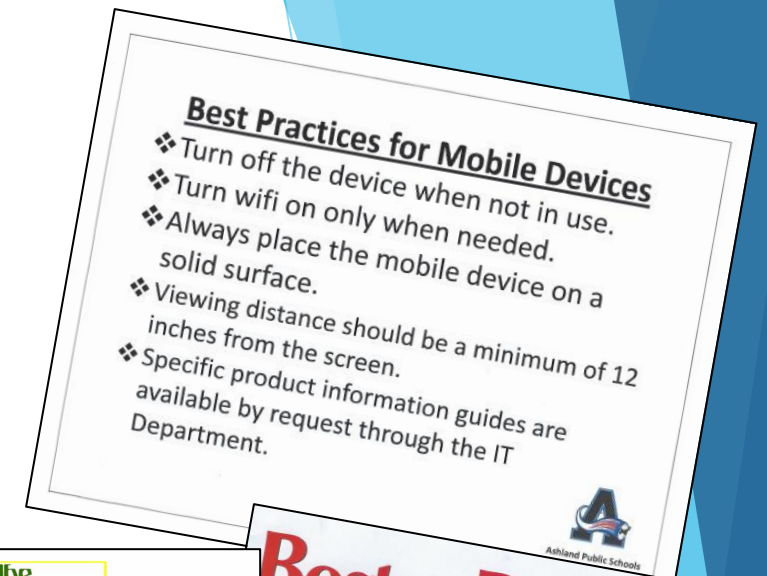
Property Values

- ▶ 720 meters/2,362 feet
- ▶ @ 300 properties
 - ▶ Average property value: \$400K - 10% = \$40K loss in value
 - ▶ \$40K x 300 properties = **\$12,000,000 potential loss in Ashland taxable assets**



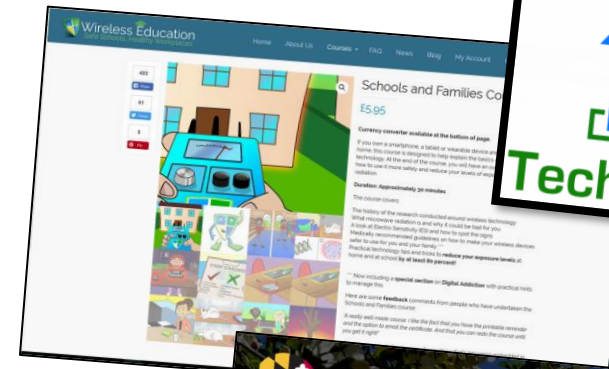
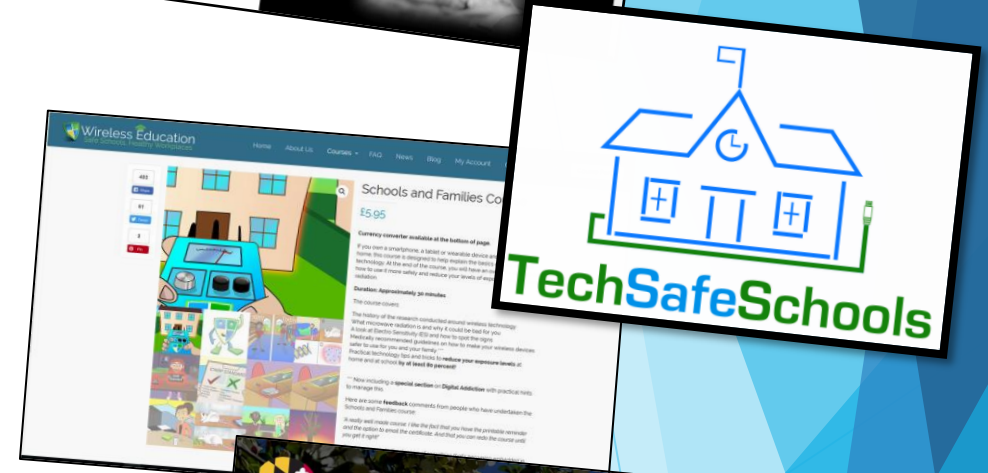
MA School Actions

- Ashland first in the nation: [Best Practices for Mobile Devices](#)
- Hosted expert panel in Shrewsbury: [Questioning the Safety of Our Children's Exposure to Wireless Radiation in School](#)
- [Worcester Public Schools: RF Exposure notice](#) & [DPH guidance](#)
- Waldorf HS hard-wired & turned off wi-fi
- Dover-Sherborn wellness committee tuning in
- Wayland middle school wellness teacher writes curriculum



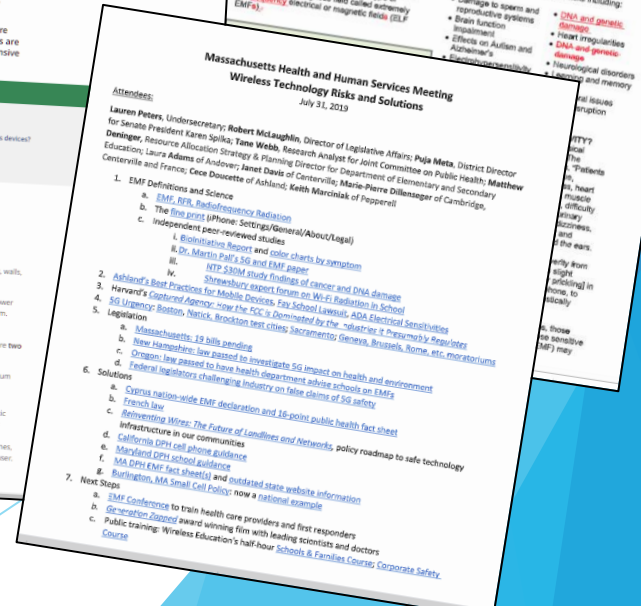
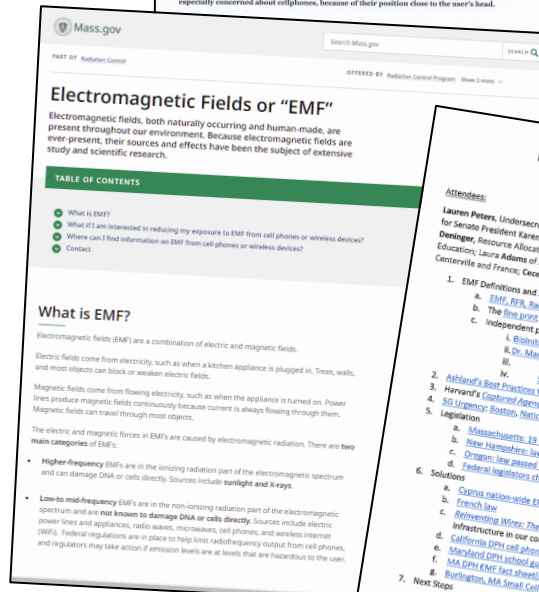
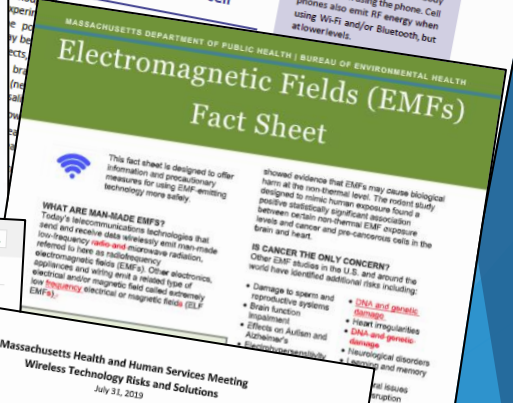
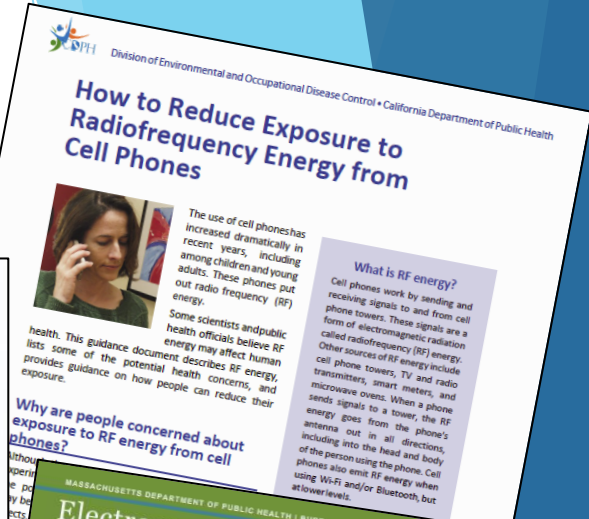
Schools Actions +

- ▶ [New York Times](#): Silicon Valley execs banning screens from their children
- ▶ [TechSafe Schools national program!](#)
- ▶ Wireless Education's [Schools & Families](#) on-line course
- ▶ [Maryland](#) first public health agency to recommend hard-wiring in schools
- ▶ U.S. Collaborative for High Performance Schools [low-EMF best practices](#)
- ▶ [Cyprus safety recommendations](#) for study at home



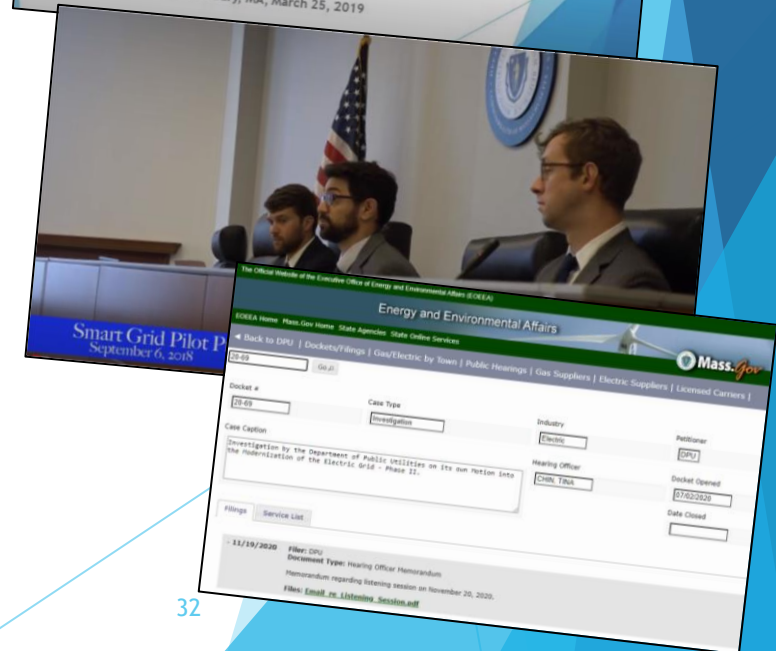
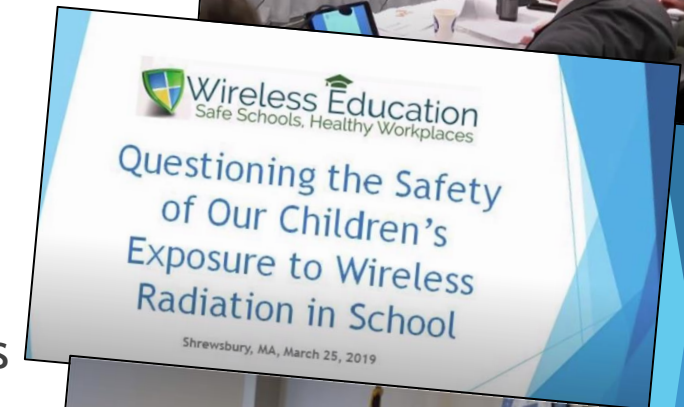
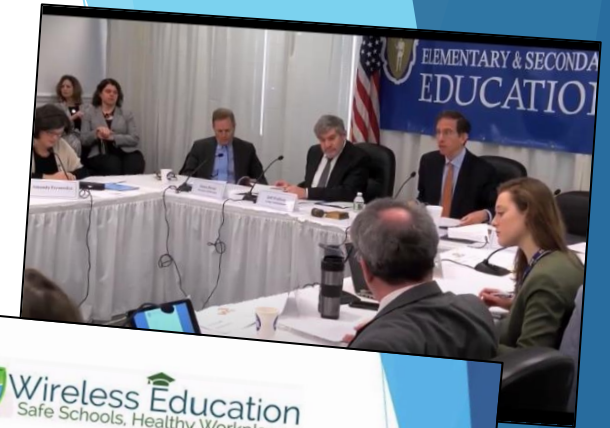
MA DPH/HHS

- ▶ CA Dept. of Public Health Cell Phone Guidance lawsuit
- ▶ MA DPH fact sheets withheld
 - ▶ Boston Globe inquiry
 - ▶ State's Radiation Control website publishes false, harmful EMF info
 - ▶ Meeting w/HHS Secretary Sudders
 - ▶ Oregon Health Authority corruption



MA DESE & DPU

- ▶ MA Department of [Elementary & Secondary Education](#)
- ▶ MA Department of Public Utilities
 - ▶ [National Grid Smart Grid Pilot Fraud Hearing](#) 2018
 - ▶ Eversource & Investor-owned: no opt-out
 - ▶ Bridgewater shut off resident's water despite doctors' letters
 - ▶ [Dockets 20-69](#): EVs & Smart Meters
 - ▶ Sen. Moore, Reps. Linsky & DiZoglio
 - ▶ 160+ Comments
 - ▶ AGO's recommendations on independent investigation ignored
 - ▶ Urgency: Eversource meters aging out & looking to replace 839,000
 - ▶ [Grid Modernization and Electric Vehicle Infrastructure Educational Webinar 2021](#)
 - ▶ [Dr. Kent Chamberlin](#), [Cece Doucette](#) slides



Professional Solutions

▶ Health Care Training

- ▶ [EMF Medical Conference](#)
- ▶ [Physicians for Safe Technology](#)

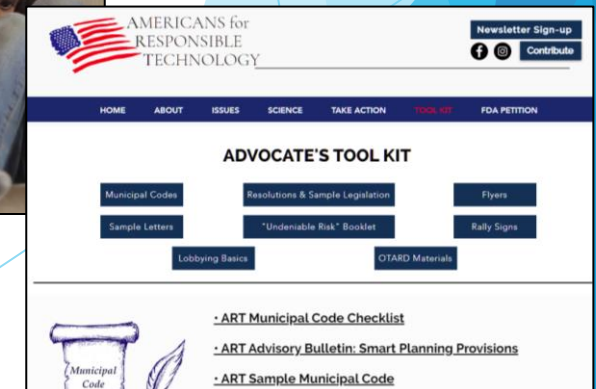
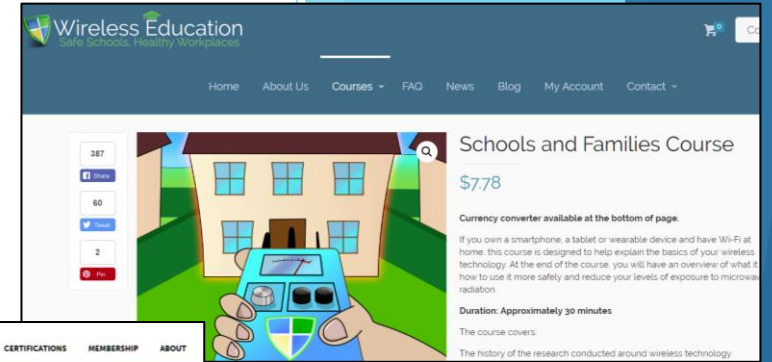


▶ Engineers, physicists, technologists, architects, etc.

- ▶ Clegg et al., [Building science and radiofrequency radiation: What makes smart and healthy buildings](#), Building and Environment, 2019
- ▶ IEEE Access: [Electromagnetic Radiation due to Cellular, Wi-Fi and Bluetooth technologies: How safe are we?](#) 2020
- ▶ Silicon Valley engineer [Jeremy Johnson TEDx Talk](#)

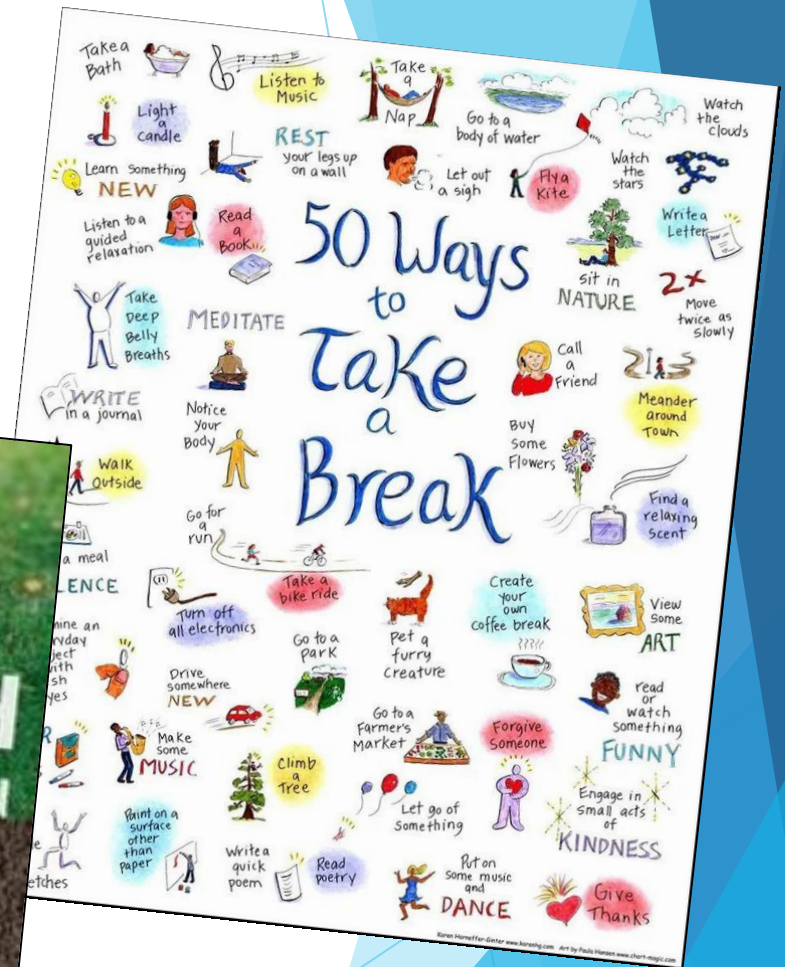
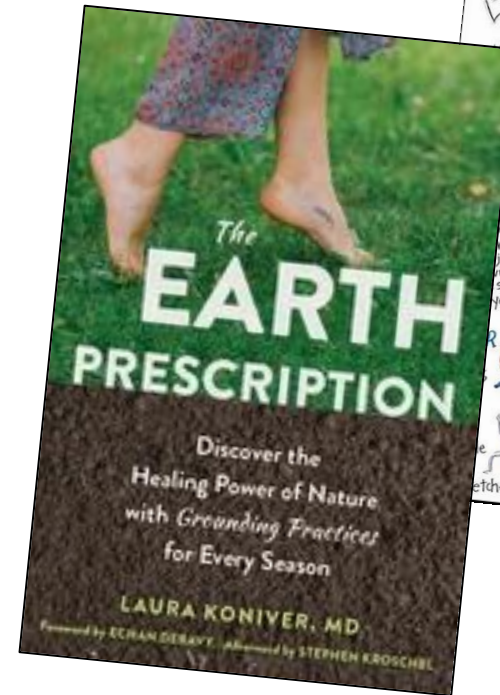
Home & Work Solutions

- ▶ Non-profit Wireless Education (@30 min. on-line)
 - ▶ [Schools & Families Course](#)
 - ▶ [Corporate Safety Course](#)
- ▶ [Building Biology Institute](#) consultants
- ▶ Award-winning film [Generation Zapped](#)
- ▶ PBS Burt Wolf [1808](#) & [1809](#)
- ▶ Americans for Responsible Technology [Tool Kit](#)



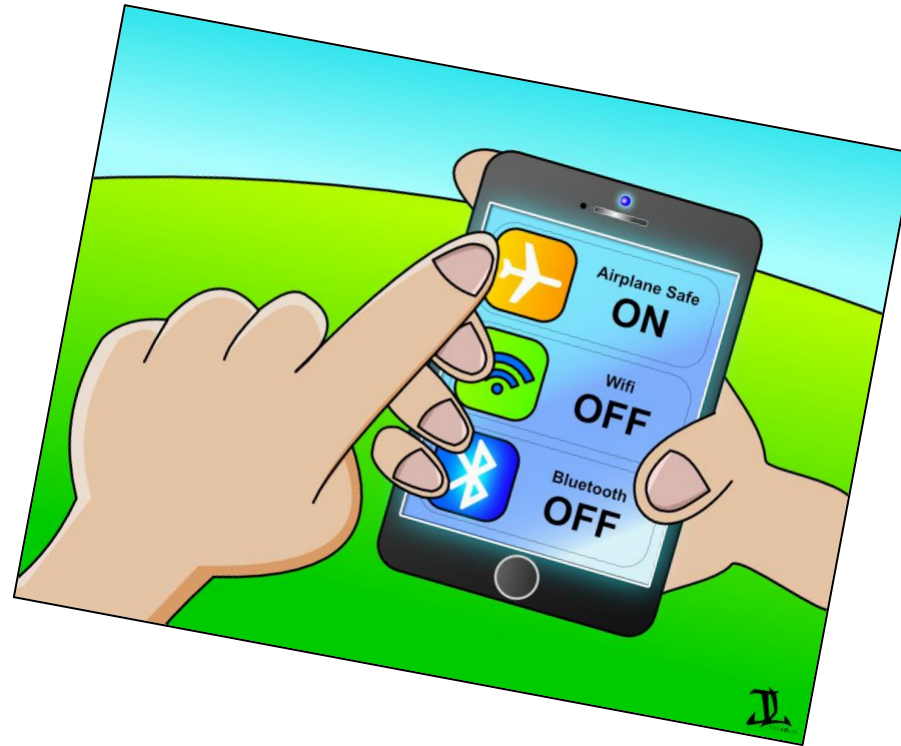
Safe Tech Solutions: Physical & Mental Health

- ▶ Avoid excessive screen time
 - ▶ Set limits for yourself and children
 - ▶ Model good behavior
- ▶ 50 Ways to Take a Break
- ▶ The Earth Prescription



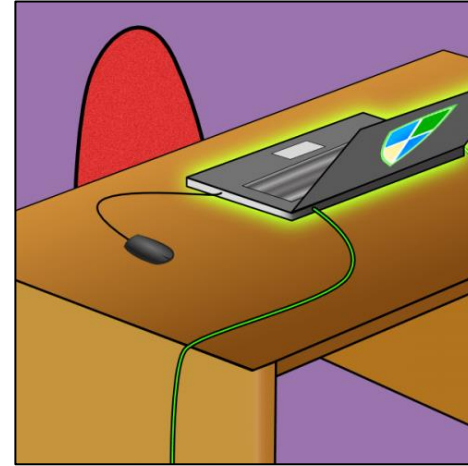
Personal Solutions

- ▶ *All devices off*
- ▶ Airplane mode
 - ▶ Cellular Off
 - ▶ Data Off
 - ▶ Wi-Fi Off
 - ▶ Bluetooth Off
 - ▶ Hotspot Off
- ▶ Second-hand radiation: people & pets

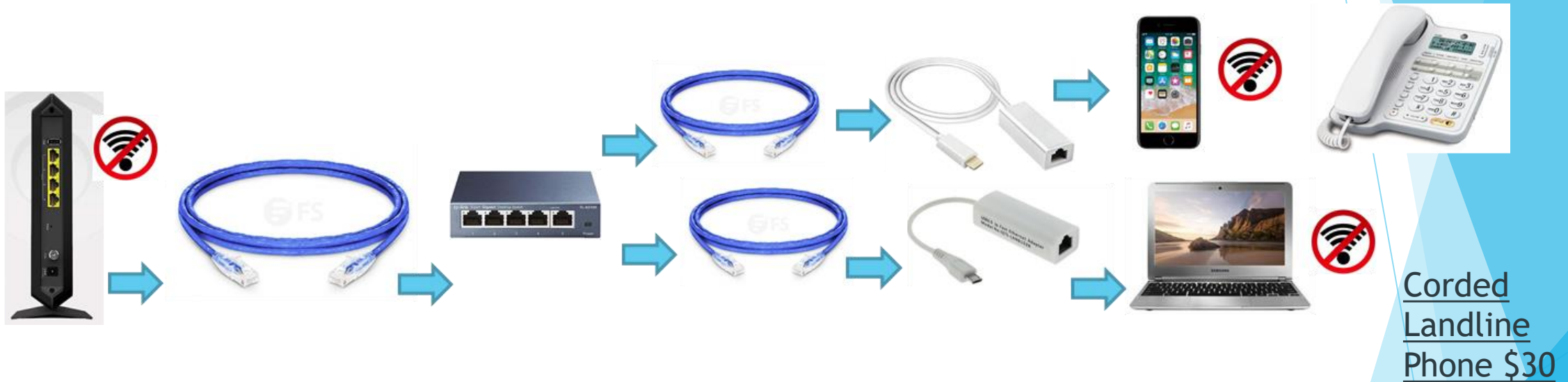


Personal Solutions

- ▶ Safe technology is easier than we think: hard-wire
 - ▶ Router
 - ▶ Shielded Ethernet cables
 - ▶ Ethernet switch
 - ▶ Adapters



What Safe Technology Looks Like



Router

Shielded
Ethernet
Cable: Long
@ \$30

Ethernet
Switch
@ \$20

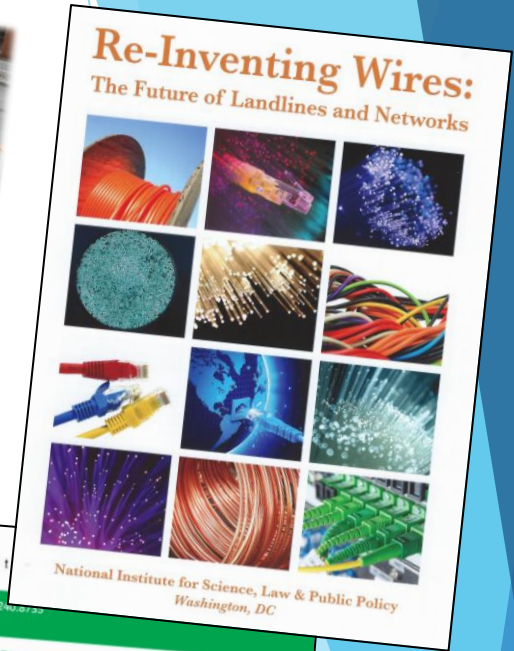
Shielded
Ethernet
Cables:
Short
@ \$4-10

Cell Phone
& Tablet
Adapters
@ \$30

Corded
Landline
Phone \$30

Safe Tech Solutions: Municipal Level

- ▶ Investigate:
 - ▶ Resources for [Municipal Leaders](#)
- ▶ Differentiate industry priorities vs. public's
 - ▶ [Reinventing Wires: The Future of Landlines and Networks](#)
- ▶ [Measure](#) vs. [biological effects](#)
- ▶ [ALARA](#), As Low As Reasonably Achievable (CDC)



SAFELIVING Technologies Inc.
7 Clair Road West, P.O. Box 27051, Guelph, ON, N1L 0A6 • Tel 519.243.6733
support@slt.co • www.slt.co

RADIOFREQUENCY / MICROWAVE EXPOSURE GUIDELINES

(High Frequency Electromagnetic Waves)

1) BUILDING BIOLOGY PRECAUTIONARY GUIDELINES (SBM-2015) For Sleeping Areas

Power density	No Concern	Slight Concern	Severe Concern	Extreme Concern
microWatts per square meter (μW/m²)	< 0.1	0.1 - 10	10 - 1000	> 1000
microWatts per square cm				
milliWatts per square meter				
Signal strength				

Americans for Responsible Technology
Checklist for Municipal Codes Addressing Small Cell Installations

- The code requires applicants to document possession of liability insurance which does not exclude health claims due to radiofrequency (RF) radiation
- The code requires the applicant to document significant effort to place antennas in non-residential areas, and away from schools and daycare centers.
- The code requires applicant to provide to all homeowners within 500 feet of the proposed installation notification by certified mail.
- The code requires the applicant to document a significant gap in service which will be remedied by the proposed small cell installation.
- The code requires the applicant to post conspicuous signs of pending applications at all proposed sites.
- The code requires that RF radiation emission limits apply to the aggregate emissions of all co-located equipment.
- The code requires applicants to certify that all small cell installations will comply with provisions of the Americans with Disabilities Act.
- The code permits the municipality to conduct random, unannounced RFR emission testing of any small cell installation at the expense of the operator, and provides for substantial penalties for violations.
- The code requires applications and permits for all small cell antennas including strand-mounted antennas.

Understanding EMFs

Navigation

For Municipal Leaders

This page is designed for public servants such as selectmen, town managers, mayors, governors, state representative, raters, zoning boards, planning boards, building inspectors, public health agents, school administrators, librarians, senior director and others in whose hands the public has entrusted their welfare.

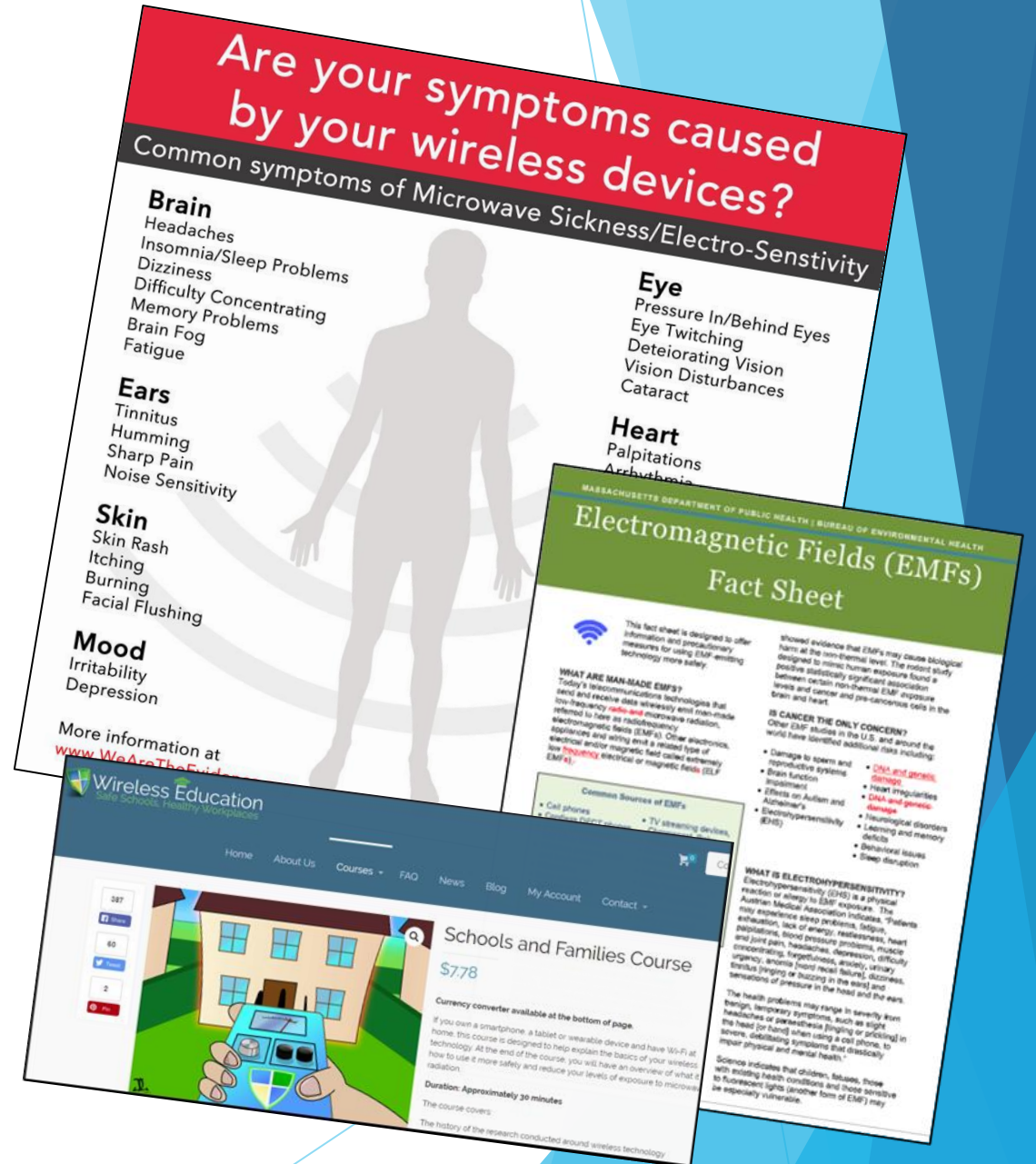
- For an overview of the wireless radiation issue, you are welcome to see a presentation to a four-town board in Massachusetts. My talk begins at 3:27. Post-note: two of the towns have since adopted the Burlington, MA Small Cell Policy (discussed further down the page):
<https://www.youtube.com/watch?v=OYzUyWPHc20>
- The following document provides links to the resources presented. Please feel free to share widely:
<https://docs.google.com/viewer?as=&pid=sites&srcid=ZGfVmYXVsdGRvWfobnx1bmRlcnNOYV%kaW5oZW1mc3xneDozNmFIN2Y4MjEmYjIOTVj>

The Issue: Wireless Technology is Biologically Hazardous

In 2018 the U.S. National Toxicology Program reported findings from a 16-year \$30M study on wireless radiation, specifically, 2G and 3G cell phone radiation on rodents. Similar findings have been reported in 4G studies as well. Here are

Next Steps

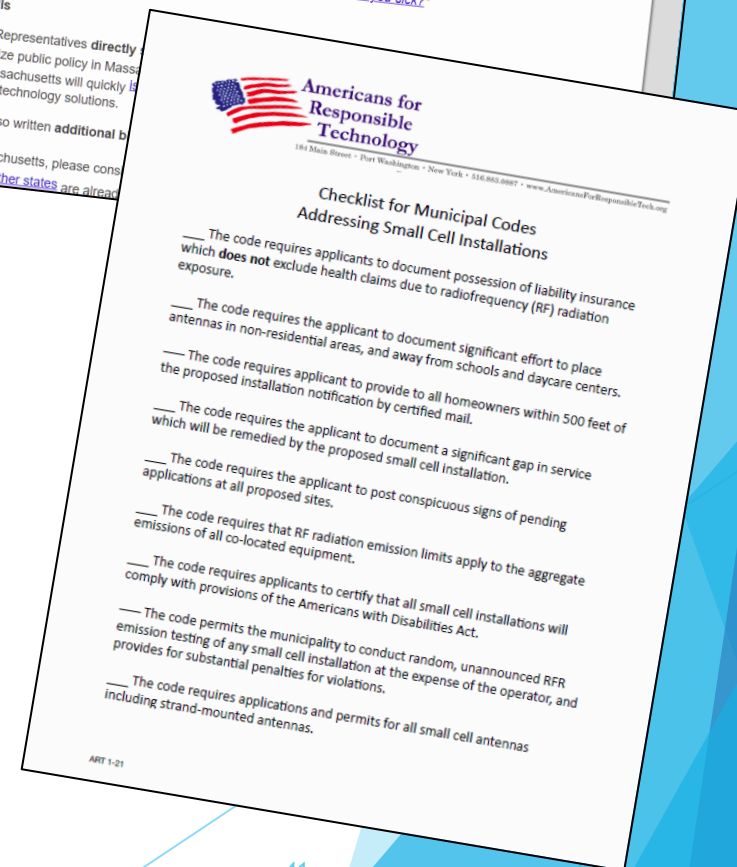
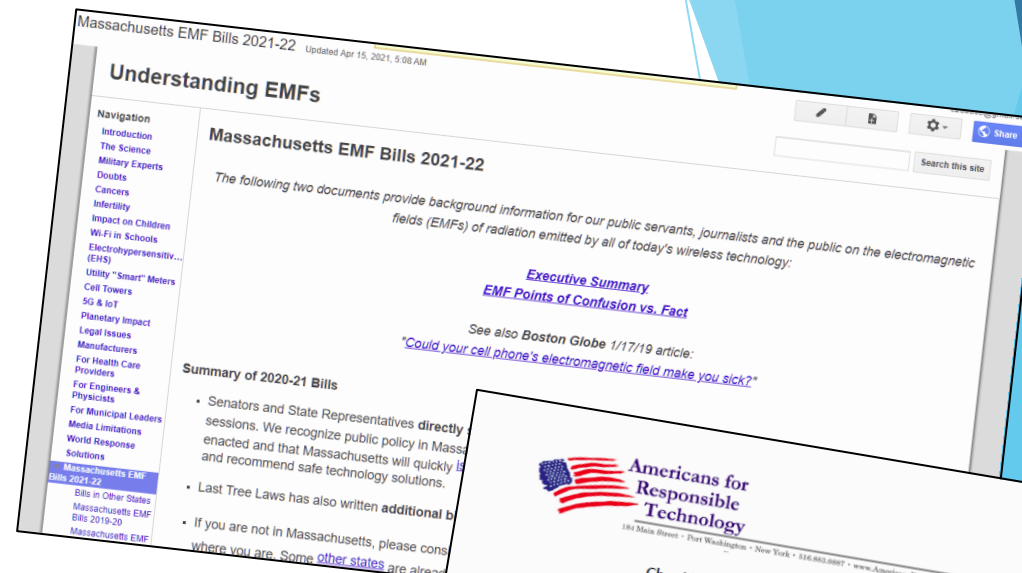
- ▶ No safe level of EMF/RF
- ▶ Transition to As Low As Reasonably Achievable (CDC)
- ▶ Dr. Linda Birnbaum: Need state efforts
- ▶ Enact HB1644
- ▶ Educate the public
 - ▶ EMF fact sheets
 - ▶ Wireless Education quick on-line training



Next Steps

▶ Local:

- ▶ Form town-wide tech safety committees
- ▶ Offer no-fee “smart” meter opt-out
- ▶ Transition to hard-wired in public spaces
- ▶ Strengthen wireless communication facility by-laws: [Americans for Responsible Technology tool kit](#)
- ▶ National Attorney [Andrew Campanelli](#)



Next Steps

▶ Educate community

- ▶ Sponsor public/regional forums ([Tri Town Health Department](#), [Hanscom Area Towns Selectboard](#))
- ▶ Train schools & staff on safe tech ASAP ([Cyprus](#) - translated from Greek)
- ▶ Engage professional associations (MASC, AFL/CIO, Nurses Assoc., Children's Alliance, etc.)

Guide on Safe Internet Connection, Especially for Children and Distance Learning
It's great to be able to communicate now that we're "staying home". Technology helps us to stay connected even from afar. We learn the best possible way to do it... safely!

We are grateful that today's technology allows us to work from home, that children are able to attend classes, and especially the fact that we can stay in touch with the people we love, even from a distance. This can be done safely, via WIRELESS video.

In this guide, emphasis is given to wireless on how the wireless can be used in communication.

Wireless communication is very convenient. Internet connection is highly recommended without being exposed to the harmful evidence you may find in the literature. Communication safely and responsibly is "competence". We simply need to connect when not in use.

Safe Cell Tower Siting
What You Need to Know
October 19th, 6:30-8:00pm
One Hour Online Zoom Discussion followed by 1/2 hour Q&A

Meeting ID: 810 4836 4531
Passcode: TriTown
[Click Here for Zoom Link](#)

Join Tri Town Health for a discussion about scientific and policy developments regarding the health effects of electromagnetic radiation exposure from cell towers / antennas, and what citizens, policy makers and health care professionals need to know to make informed decisions for their communities.

For: Municipal leaders, legislators, lawyers, health care professionals, school administrators and educators, concerned citizens, parents, neighbors and organizations wanting to understand the health and environmental impacts, safe technology solutions and what other countries and municipalities are doing to balance the technological expansion with safety and consideration for its citizens.

Presented by: Cecelia Doucette of Massachusetts for Safe Technology & Jon Mirin of Hilltown Health

Information to be presented:

- What other countries, states and cities are doing to keep citizens safe
- What we can do in the Berkshires to be educated, aware and proactive regarding municipal placement of wireless equipment in our cities and towns
- Understanding EMFs
- Cell Tower research epidemiological evidence
- RF experts
- Industry influence & FCC
- Precautionary principle
- Being pro-tech and pro-human
- Safe siting principles
- Massachusetts actions

For More Information
tritownhealth.org
celltowerquestions@gmail.com

Thank You!

- ▶ [Massachusetts for Safe Technology](#)
- ▶ MA4SafeTech@gmail.com
- ▶ WirelessEducation.org

