

5G Small Cell Hazards & Better Technology Solutions

Cece Doucette

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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, <u>Wireless Education</u>, educational non-profit
- ► Co-founder, <u>Massachusetts for Safe Technology</u>
- ► <u>Co-Chair, Technology Panel, Health in Buildings</u> <u>Roundtable Conference</u> @ NIH
- ► Speaker: EMF Medical Conference 2021



Overview

- Legal Fine Print
- Science
- Municipal Points of Emission
- Conflicts of Interest
- Better Solutions
- Next Steps

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
- ❖ Viewing distance should be a minimum of 12
- Specific product information guides are available by request through the IT



The Legal Fine Print

- ► See the Fine Print
 - Settings
 - **▶**General
 - ► (About)
 - ► Legal & Regulatory
 - ► RF Exposure
- ALL wireless devices, "smart" technology, Internet of Things (IoT)
- Ashland, Newton, MA: detection meter in public libraries





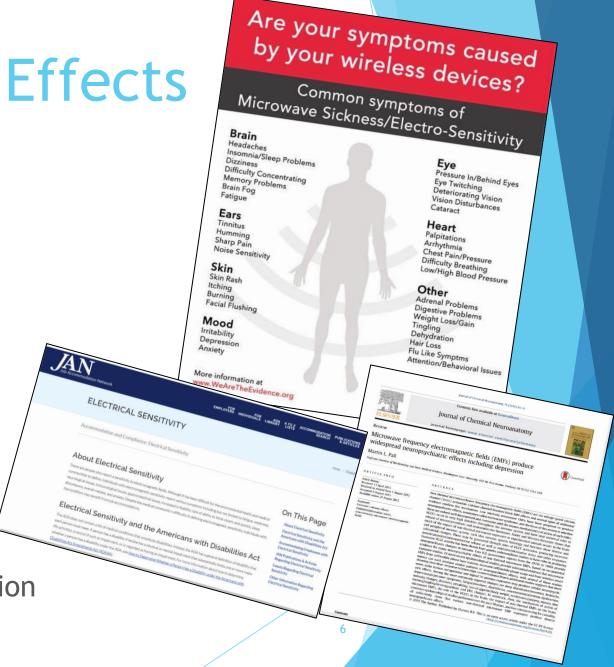
Science: Long-term Effects

- ► Child & Adult Cancers
- **►** DNA Damage
- ► Infertility
- ► <u>Neurotoxicity</u>
 - > ADD/ADHD
 - > Autism
 - > Alzheimer's
- ► <u>Children</u> are especially vulnerable (Andrea)



Science: Short-term Effects

- Electromagnetic Sensitivity/ADA
 - > Insomnia, nightmares
 - > Headaches
 - Nosebleeds/earbleeds
 - Fatigue
 - > Pain
 - Skin abnormalities
 - Irregular heartbeats
 - Cognitive impairment
 - > Anger, behavior issues
 - > Anxiety, depression, suicidal ideation



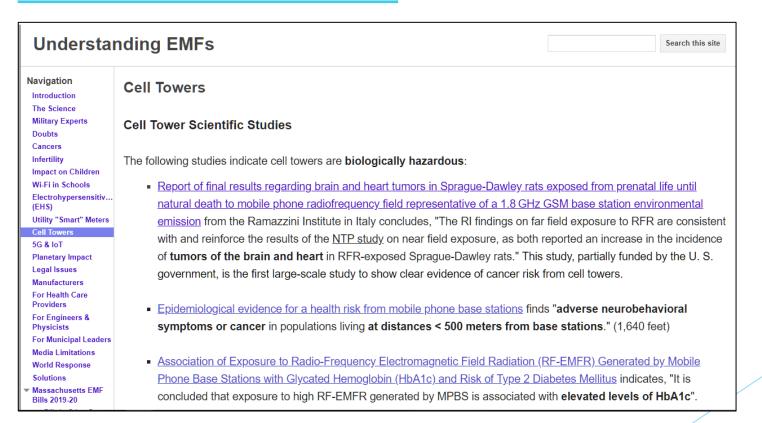
Science: Planetary Impact

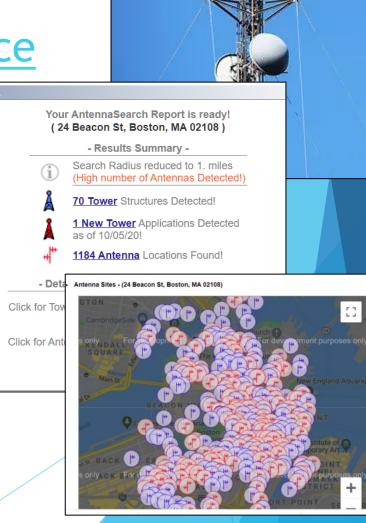
- Pollinators
- Birds
- Energy consumption
 - Mineral extraction
 - Data warehouses
 - Networks
 - Personal devices
 - Streaming
 - > Send/receive
 - Charging
 - Continuous app updates



Cell Towers

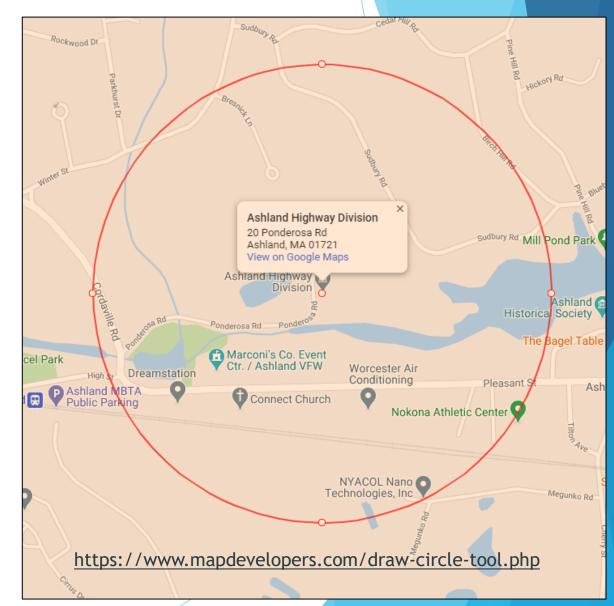
- Examine the <u>non-industry funded science</u>
- ► AntennaSearch.com





Science: Health Risks

- ► <u>500 meters/1,600 feet</u>
- @ 135 Homes + Businesses
 - Sudbury Road
 - ▶ Birch Hill Lane
 - Bresnick Road
 - ► Cordaville Road
 - ► Ponderosa Road
 - Pleasant Street
 - ► Winter Street
 - ► Forest Avenue
 - Metcalf Avenue



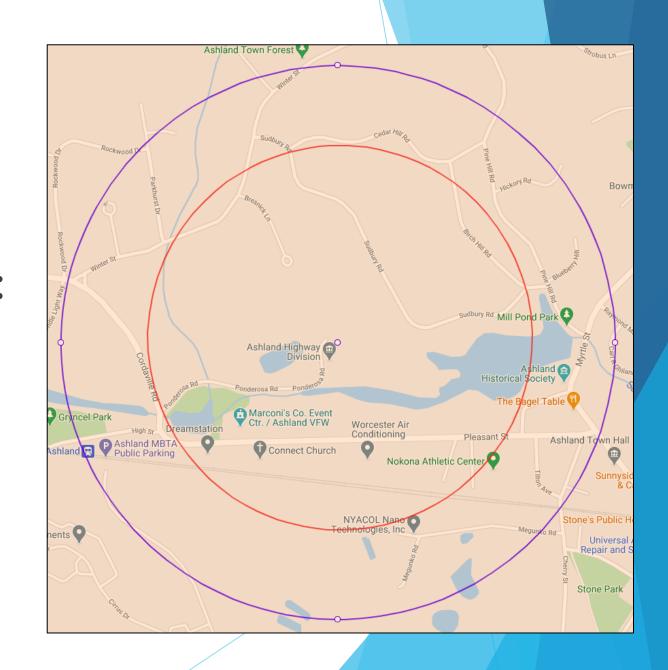
Property Values

- ► 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



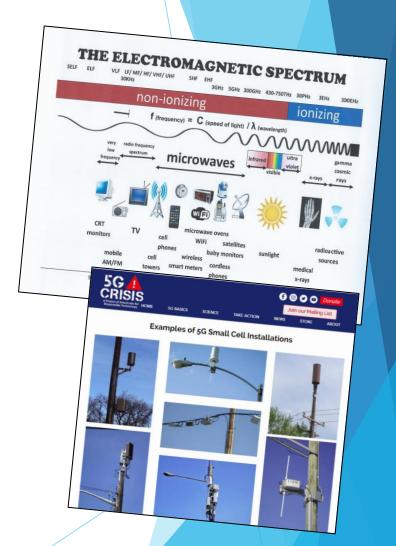
Property Values

- ► 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



What is 5G?

- ► 5th Generation technology
- Promises faster entertainment downloads, smart cities, etc.
- Uses existing 3G, 4G wavelengths to penetrate buildings
- ➤ 5G is the *addition* of short millimeter waves, can't go through objects; clear-cutting trees



What is 5G?

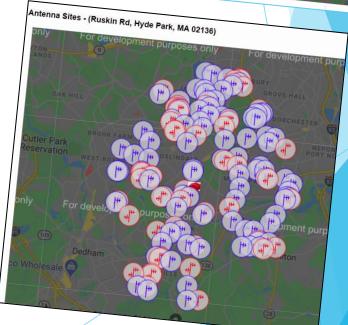
- Industry goal: millions of small cells at curb outside bedrooms in public access way, every 2-12 houses; already in Boston and elsewhere
- ► Thousands of <u>5G satellites</u> beaming radiation, polluting the sky
- Revenue streams: entertainment, data harvesting
- Industry, not consumers, driving capacity demand



What is 5G?

- Gone from consumers to being consumed
- Boston/Hyde Park environmental justice
- Never tested for safety (Congressional hearing)
- ► ComputerWorld: <u>5G a Bad Joke</u>





Why Don't We Know?

- ► FCC: Captured Agency
- ► FDA: Conflict of Interest
- ► <u>Precautionary Principle</u>



A Word of Caution: Misleading "Trustworthy" Sources

- New York Times
 - ► Article, "The 5G Health Hazard that Isn't"
 - ► Conflict of interest: <u>5G Verizon lab at NYT</u>
 - ► Ireland: Violation of truth & accuracy code
- World Health Organization
 - ► False EMF information still posted
 - ► 2020: EMF investigation reopened
 - Two WHO groups:
 One industry-influenced, one science-based



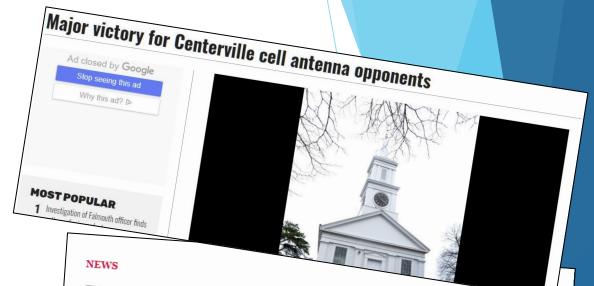
Social Norm Change

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



Public Taking Action

- ► Cell towers
 - ► Shelburne, MA 1,500' setback in bylaw, 3,000' from schools
 - ► <u>Burlington small cell policy</u>
 - Holliston wireless antennas on power lines
 - ► Wayland 900' setback in bylaw
 - ► Dover-Sherborn Regional won
 - Concord relocating tower
 - Petersham AT&T height waiver denied



How a Verizon Cell Tower Began a Furious Debate in Wayland

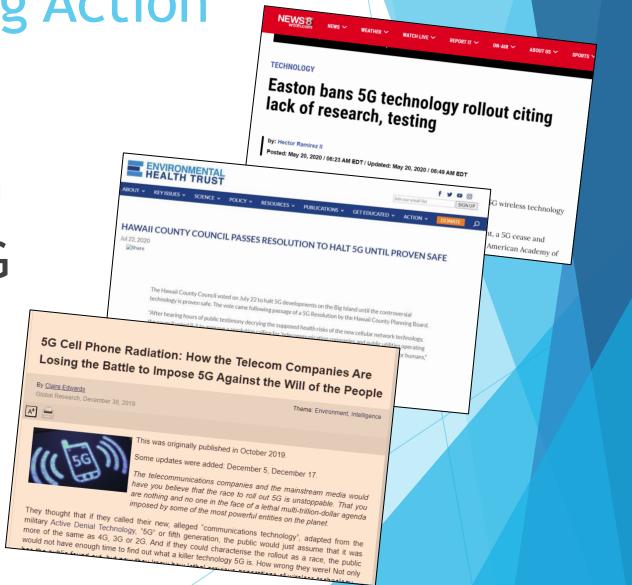
A shooting range, a 141-foot cell tower, and a mob of angry neighbors in one of Boston's toniest suburbs. Inside the feud that's bringing Wayland to its knees.

by JULIE SURATT • 4/11/2019, 5:51 p.m.



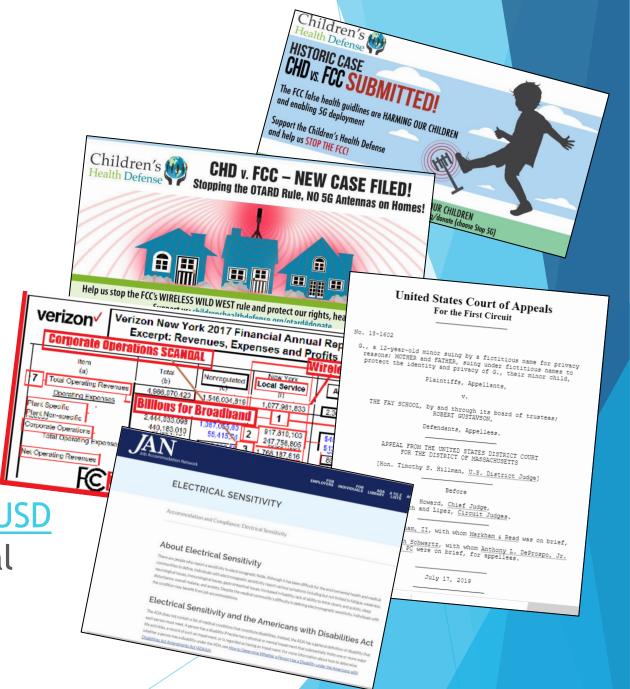
Public Servants Taking Action

- Easton, CT bans 5G
- ► Hawaii County bans 5G
- Bermuda temporary 5G moratorium
- ►Brussels & Geneva too
- ► Worldwide actions



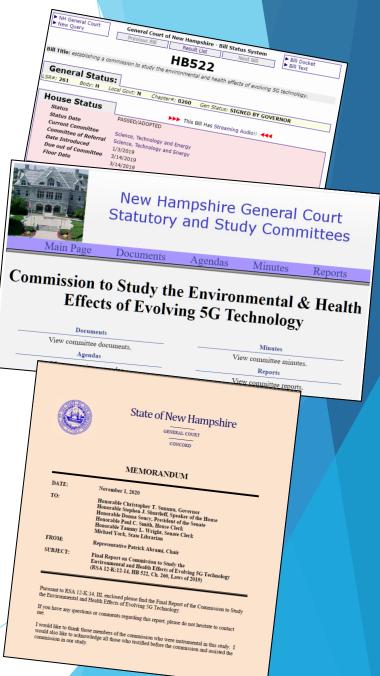
Legal Solutions

- ► FCC being sued:
 - ▶ Ignoring the science
 - ► Environmental Health Trust
 - ► Children's Health Defense
 - ► CHD OTARD Rule
 - ► IRREGULATORS v. FCC (\$500B)
- ► ADA protections Fay School & LAUSD ADA: Court recognizes non-thermal biological effects



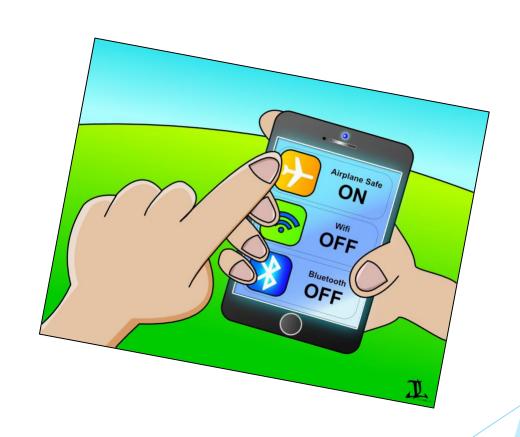
National Policy Solutions

- ► 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 nonthermal, 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 law in less than a year, groundbreaking <u>Commission Report</u> a year later
 - Majority Report, Minority Report: industry playbook

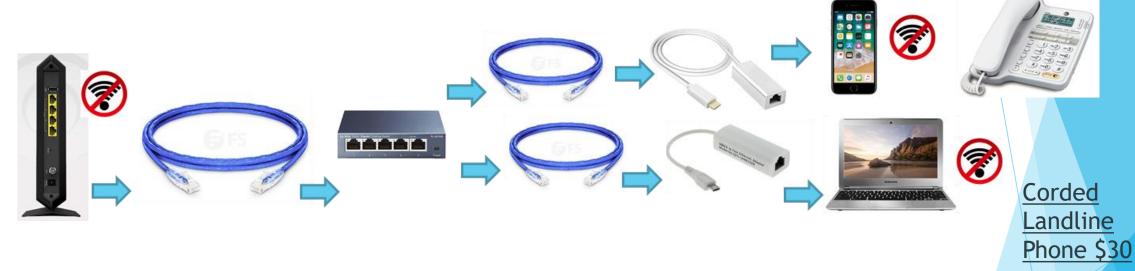


Personal Solutions: Easy & Legal

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



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

Professional Solutions

- Health Care Training
 - ► EMF Medical Conference
 - ► Physicians for Safe Technology



- Engineers, physicists, technologists, architects, etc.
 - ► Clegg et al., <u>Building science and radiofrequency radiation: What</u> makes smart and healthy buildings, Building and Environment, 2019
 - ► IEEE Access: <u>Electromagnetic Radiation due to Cellular</u>, Wi-Fi and Bluetooth technologies: How safe are we? 2020
 - ► Silicon Valley engineer <u>Jeromy Johnson TEDx Talk</u>

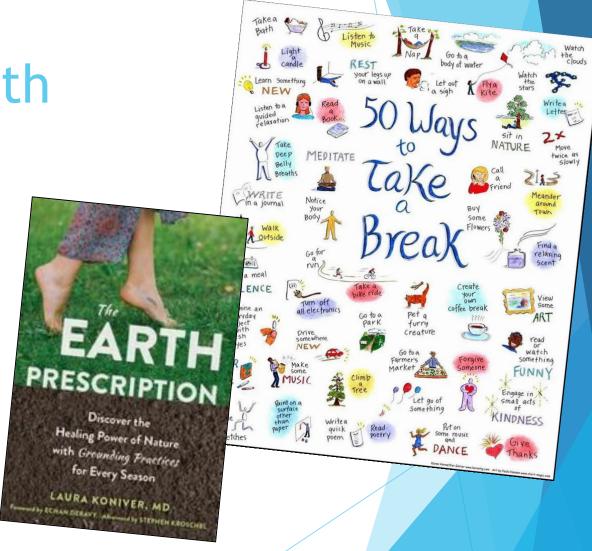
Home & Work Solutions

- ▶ Wireless Wise Kids
- Non-profit Wireless Education (@30 min. on-line)
 - ► Schools & Families Course
 - ► Corporate Safety Course
- Award-winning film Generation Zapped
- ► PBS Burt Wolf <u>1808</u> & <u>1809</u>
- ► 5GCrisis.com <u>Tool Kit</u>

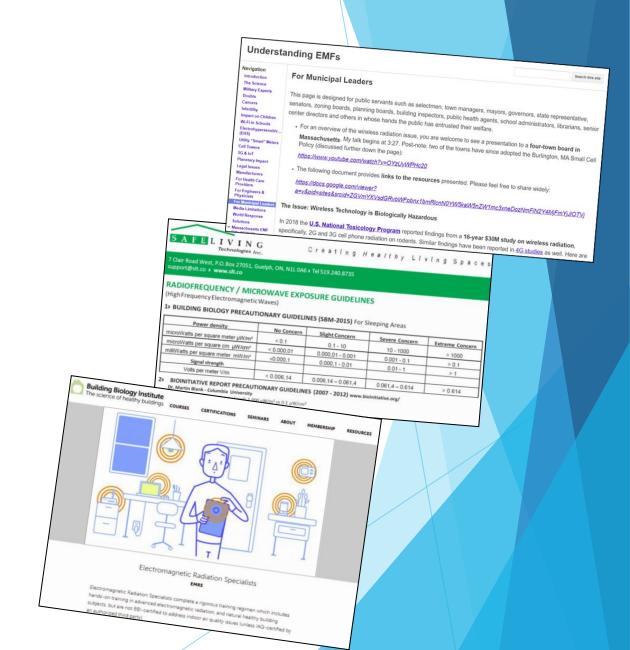


Safe Tech Solutions: Physical & Mental Health

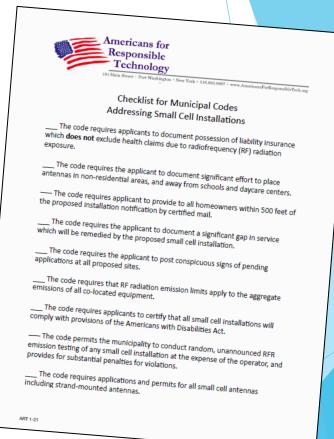
- Avoid excessive screen time
 - Set limits for yourself and children
 - Model good behavior
- ► 50 Ways to Take a Break
- ► The Earth Prescription



- Investigate:
 - ► Resources for <u>Municipal Leaders</u>
- Differentiate industry priorities vs. public's
- ► ALARA, As Low As Reasonably Achievable (CDC)
- ► Measure vs. biological effects
 - ► <u>Building Biology Institute</u>



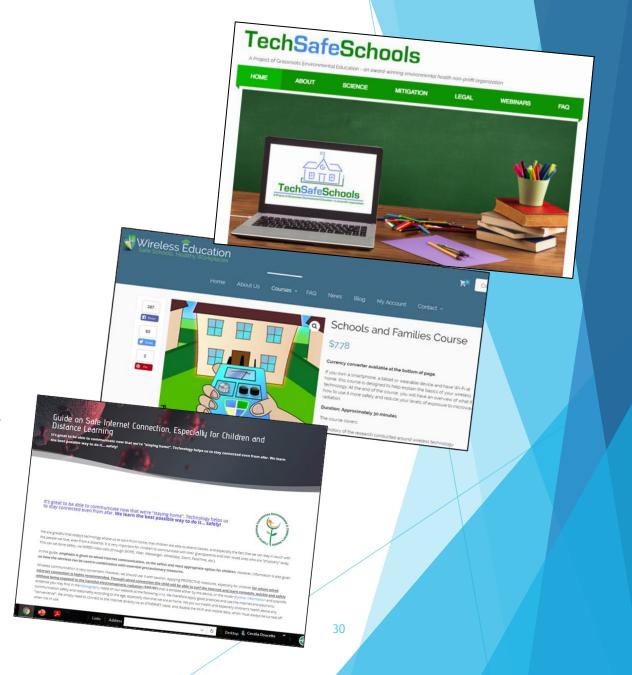
- Significant telecom code amendments to map antennas, monitor emissions, 5GCrisis.com tool kit
 - Notify public by certified mail in advance, especially EMS-disabled
 - Create low-RF safe zones
 - CityScape, Inc., to do a wireless master plan
- Update Building Code to comply with ADA
- EMS-safe affordable housing & transition shelters



- Municipality
 - ► Refuse <u>utility "smart" meters</u>
 - Reinventing Wires: The Future of Landlines and Networks (Schoechle)
 - Legal telecom experts
 - Wireless Education Corporate Course
- ► EMF Medical Conference
 - ▶ Public Safety: Fire & Rescue, Police
 - Health Care Providers



- Schools: Train ASAP
 - ► TechSafe Schools
 - Wireless Education'sSchools & Families Course
 - ► Cyprus Guidelines



- Educate community
 - ► Sponsor public/regional forums
 - Engage professional associations (MASC, MASBO, MMA, MTA, DESE, IBEW, etc.)
- Contact legislators



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 John to Town measure of discussion about scientific and policy developments regarding the health effects of electromagnetic radiation exposure from cell towers /antennas, and what ricean eriects or electromagnetic ratilation exposure from centiowers varietines, and what citizens, policy makers and health care professionals need to know to make informed decisions



helped her schools become the <u>first in the nation</u> to safeguard students and staff Timothy schoechle, Pho, Prof. Emeritus CU and CSU, telecommunications expert, Author of Reinventing Wires: The Future of Landlines and Networks Sheena Symington, B.Sc., MA, Director, Electro Sensitive Society. Virginia Farver, advocate and parent of son who died of brain cancer from a cell tower on school campus, petitioner with children's Health Defense vs. FCC lawfull

Watch the award-winning film <u>Generation Zapped</u> (free if your library subscribes to Take the quick Schools & Families Course from the non-profit Wireless Education IF YOU ARE UNABLE TO ATTEMP BUT WOULD LIKE TO JOIN AMOTHER CONFERATION, OR PERMAPS NOTICE PLEASE CONTACT CECE AT CODOLOGIOCOMAIL.COM. THANK YOU

Coloradans and La Plata for Safe Technology members

Thank You!

- **Contact:**
 - Massachusetts for Safe Technology
 - ► MA4SafeTech@gmail.com
 - ► WirelessEducation.org

