ALL WRITTEN COMMUNITY CORRESPONDENCE RECEIVED AS OF FEBRUARY 6, 2024

NOTICING DISTRIBUTION TIMELINE

NOTICE OF APPLICATION - NOVEMBER 17, 2023

NOTICE OF PLANNING COMMISSION PUBLIC HEARING - DECEMBER 1, 2023

(1ST) NOTICE OF DESIGN REVIEW BOARD PUBLIC HEARING - DECEMBER 8, 2023

(2ND) NOTICE OF DESIGN REVIEW BOARD PUBLIC HEARING - JANUARY 5, 2024

November 17, 2023

To: Suzanne Hartman, Project Planner

Re: Verizon Wireless Proposed Telecom. Facility

I received the tiny print post card a few days ago (close to Thanksgiving)

Which is impossible to read or clearly understand. The diagram itself is even smaller than the mini-printing and insulting to ones intelligence.

Because Vintage Park residents, and all others who received these postcards, when so many were away for Thanksgiving or dealing with illness, we need two more weeks to respond with questions and concerns.

The postcard was hurried and without proofreading. For instance, I could not find any date for the meeting nor did it say what meeting, where and when, and can the public attend. Colgan area neighbors should be included and allowed to discuss questions and concerns. Also, be listened to without time constraints.

Another error is in the wheelchair section of the card. The very last line of that paragraph reads:

"Meeting information can also be accessed via

The internet at."

That line ends with a period, not a website address. This alone shows the extreme hastiness (or intention) by the cards creator. More important, it's a crucial loss of information to the reader.

On the front of the card there's a map with Colgan Avenue. La Esplanada condos with some of their buildings are drawn on it. There's a black star marking Verizon's proposed location (244 Colgan Ave.)

Vintage Park Sr. Apts. lies directly across from that star. Yet no mention of us, or drawings of 120 units, exist. There are two residents in many of those units. There is no mention of us or them...on entire postcard.

My two biggest concerns are noise and health. Noise alone can, and does, worsen health. I discovered that CEQA (Ca. Environmental Quality Act) exists from 1970. So one question is:

Has an **environmental impact report** been done on Verizon's proposed project??? If so, does it address noise?

Will there be other potential negative effects on human health...like cancer risks from radiation. Will traffic be increased to the site (and pollution along with it)?

If Verizons proposed project is as sloppy, confusing, and unprofessional as the postcards, it's doomed from the get-go. The "get- go" just got up and went.

Annie Acker Annie Acker

Vintage Park Sr. Apts.

135 Colgan, #2039, Santa Rosa.

My name is Judy Salerno and I live at 141 Colgan Avenue #1087, across the street from the Proposed Verizon Project.

Firstly, let me address the timing of your notice. You have not provided enough time to respond to your notice. Maybe picking a holiday weekend, small print unintentional, but from a resident's perspective, it appears intentional.

Frankly, I am astonished that the city would plunk down such a large project among a growing mixed-use community with retail and residential apartment buildings on an unpaved, extremely busy street that commuters use to reach Costco, surround retail outlets and access to Highway 101 in what has become an important vital and thriving community.

Santa Rosa Avenue's four way access at Colgan Avenue, with highway 101 access to the north, and access to highway101 South, is a half city block away, is already difficult and dangerous to traverse. Many of our seniors living here do not have vehicles and must walk the unpaved conditions of Colgan Avenue, will make this long-term construction project a living hell. Can there be anything more unattractive than a chain-link fence?

I understand that these projects are necessary in growing cities, I hold no personal angst or animosity towards Verizon itself, I am addressing the idea of putting a project like this front and center of a vibrant and busy street. I have been a resident of Vintage Park Senior Apartments for 12 years. Before that, I was a resident of 626 Pine Street, where I worked hard to help designate Burbank Gardens a Historical neighborhood and worked with the City that paved our entire 60 acres with new streets. I know this area intimately. I met my husband at the El Rancho in 1977. I know Santa Rosa Avenue has always been considered a poor side of town, with strip clubs and trailer parks, etc. We are no longer that Avenue. You are aware, I'm sure, that currently, hundreds of apartments and homes to our left on Petaluma Blvd. are going up with more to follow.

I am asking for more appropriate notification for this community. I am asking for a representative to meet with our community personally. Not enough time has been allocated to notify this community. These notices are often mistakenly considered trash. The print is too small.

The city has always been receptive to the needs of the community. When the community finds out this economic development project is being proposed, not at our back door, but front and center in our face every day will not go unaddressed. Denial can be the only reasonable answer to Verizon's submission.

We are asking for a denial of this project. I am aware of contact from Ms.Laurinda Atwood. I am communicating with her on this dead in the water project, we are asking city planners if they would like this in their front yard.

We would appreciate project submittal documents to submit to our community.

I am stating for the record, that the Verizon Project Application at 244 Colgan Ave is DIRECTLY across the street from Vintage Park Senior Apartments at 147 Colgan and other building numbers (137, 139 et cetera).

I received the NOTICE OF APPLICATION in todays mail and request accommodation for the senior aged tenants that reside in close proximity to the proposed cell tower and other equipment. The residents age 63 and older, many with existing health issues, who would be at risk for scientifically documented adverse health affects of the EMF of the tower and other equipment. (UCBerkeley has a credentialed group that is solely dedicated to the data collection for this subject matter.)

1) The print size of of the mailing card is at an extremely small sized font of about 6 pt, which is not readable to most of the senior residents that reside here, and we ask that the information be presented in a fair and appropriate manner that the "PROJECT DESCRIPTION" and other information contained on the small card, be made accessible ie. is resent in a format that is READABLE in acceptable larger font size of 18 point, that I may distribute to the other residents in person. Many of the residents do not pick up their mail on a daily basis due to mobility problems, but instead once weekly.

The card received today says under PURPOSE OF ACTION. "Provide written or oral comment by November 27, 2023. This date is one week from today, when I received the card, which is not readable. Also, this is a holiday Thanksgiving week, which cuts into the days that residents will be available, many having opportunity to see family so will not be available. The time line of seven days may be reasonable for the billion dollar company that wants to rush the application through City of Santa Rosa,

Planning & Economic Development Department. The deep pockets of Verizon which would be the party benefiting from this project, and would save that company time, money and delays so strategically positioned to sneak, cheat, and otherwise circumvent challenges by neighbors, to achieve the intended goal of approval stage.

The time line of the corporate strategy is cost effective for VERIZON obviously, but does not accommodate, nor is it reasonable for the low income ELDERLY residents that struggle with daily tasks, have limited energy, and health issues such as pain and limitations that make every day activities more difficult and time consuming. A few of our younger an/ or healthier residents would like to organize an effort of outreach to educate and inform other tenants here, one week is clearly biased for Verizon and discriminatory to the elderly residents given the situation.

On the bottom of the card it states " If the request is received at least 7 business days prior to the meeting the copy shall be provided no later than two (2) business days prior to the meeting. Again, the time constraint is discriminatory to the elderly population here, as there is no way that one or two residents can reach and educate the other 100 tenants in two days.

I am responding to the notice of application regarding the Verizon Wireless New Telecommunication Facility at 244 Colgan Ave., Santa Rosa, CA 95404. On November 14, the Santa Rosa City Council heard testimony from Sidnee Cox , Mary Dahl,and Kim Schroeder regarding strengthening the ordinance regarding cell tower placement given the health impacts they exact on residents living nearby. In 2021, Safe Tech for Santa Rosa, a community group, previously helped the council draft a protective small cell ordinance regarding small cell placement. These residents explained at length how devastating nearby Verizon towers have been to their neighbors, including children. Ms. Dahl, who lives 42 ft. away from a cell tower, described the health issues she's encountered from the radio frequency radiation. All speakers argued for stronger protection, especially in light of AB965, which allows telecom companies the ability to file hundreds of proposed sites at once, otherwise impeding local control over tower placement.

I am similarly concerned regarding wireless radiation that would otherwise affect me, my neighbors, and other residents living across the street from the proposed tower on Colgan. The close proximity of the proposed tower to the La Esplanada Condominiums, an adjacent

retirement condominium complex, and nearby houses raises the specter of harm. The proposed site is a shorter distance that encountered by Ms. Dahl in her neighborhood. In an attempt to mitigate such issues in advance here, I urge that the location be moved to a less densely housed area, closer to exclusively commercial areas (not mixed use). Is this the least intrusive means to provide wireless service? The currently proposed site, across the street from multiple residences, indicates otherwise. Thank you for your consideration.

LIST OF PUBLIC COMMENTS

We are vigourously opposed to the proposed Verizon cell tower adjacent to Costco and multifamily housing.

The City must deny this project based on the following:

1.Pursuant to FCC regulations Verizon must provide substantial evidence of a gap in service. This has not been done.

2. The application materials submitted by Verizon indicate that the maximum microwave exposure levels of the proposed cell tower will exceed even the very high NEIR levels established by the FCC.

3. There does not appear to be a sufficient documentation in the application materials to determine if the proposed cell tower complies with the National Electrical Code. Cell tower fires are commonly caused by electrical problems.

Santa Rosa needs an adequate Telecommunications Ordinance that ensures the community will not be impacted by the adverse health impacts of exposure 24/7 to high levels of microwave radiation.

Please enter this correspondence into the public record along with the following link from *Physicians for Safe Technology*.

https://mdsafetech.org/cell-tower-health-effects/

Greetings Suzanne, Thanks for your call today.

This is a very bad idea for the health of

residents in the apartments and

businesses and a park in this sensitive area.

The radiation will be constant 24-7 in all

directions coming from over 20 antennas.

People and children are getting sick from

this intense RFR exposure which will double

when other telecom companies can add their

antennas to those already there. This is not

safe exposure as we and our grandchildren

visit the Colgan Creek Park very close by.

Members of SafeTech4SantaRosa have
measured radiofrequency radiation levels
near similar towers using well-calibrated RFR meters.
Due to the lobe-shaped directional radiating energy from the towers,
we have found that RFR levels can actually increase with distance.
We have found RFR levels of more than 600,000 uW/m2 (microwatts per meter squared)
at 200 feet from a 12 antenna facility. Scientists have determined that levels over 1,000 uW/m2
can cause biological harm for long term exposure.
Source: SafeTech4SantaRosa.org

This is a very bad place to put this cell tower with so high RFR levels. This is especially true for the residents and children

that cannot move out of the affected area, living and sleeping with constant emitting radiation day and night with no way

to escape from these 4-5G high frequencies. This is an experiment risking the health and welfare of Santa Rosa

residents in this area.

I worked for the City of Santa Rosa Park and Rec for 34 years,

retiring in 2010. My family and I are against this placement of this cell tower

in this sensitive area considering the health consequences to the

adults and children residents living nearby and others working and shopping

in this area. Verizon will not admit to any adverse effects to our health, even though these are verified results.

Wireless radiation is an undeniable risk to human health as evidenced by a voluminous body of sobering research. While I acknowledge that FCC rulings somewhat compromise your authority to apply that evidence to local telecommunication facility siting, you must use your position to deny Verizon's applications based on the authority you do have.

As City planners, you can and must demand that Verizon demonstrate a service coverage gap, as well as demonstrate that the proposed facility is the least intrusive means of addressing that gap. Further, if RF radiation exceeds the Maximum Permissible Exposure limit at any elevation, the proposed project must be denied.

Bottom line: 1) This facility will be too close to a location at which workers must put in daily hours, trapped near unsafe radiation. 2) Verizon's coverage in the area is very likely already adequate for mobile voice phone calls and text, *which is all FCC rulings require*. If it were not already adequate, Verizon would likely not be concealing their data (calling it "proprietary").

Thank you for your responsible attention to this matter of resident and worker safety.

I hereby object to the proposed LOCATION of the Verizon cell tower. I am in the process of preparing my objection to the location, and scanning the attachments. It will take me a couple of days to finish. I will forward to you upon completion.

Please do not let a cell tower be installed behind Costco in Santa Rosa. Wireless signal emits radio frequency RADIATION !!!!! We are already inundated with TOO MUCH RADIATION from all forms of wireless tech !!! There are many residential apartments in that area. Already people , animals, bees , trees are getting sick and dying from this RADIATION !!!!! The FCC has ignored 25 years of research that proves that wireless tech is UNHEALTHY for ALL LIFE.... . PLEASE do the right thing,... get educated , and use the precautionary principle = unless proven healthy , do not proceed and allow harm to occur....., sickness, bee colony collapse, failure to migrate for birds.... The FCC is a captured agency and does NOT protect us but only looks out for the greedy interests of the tech industry . PLEASE NO CELL TOWER !!!!! Theresa Melia Graton Ca. I shop SR regularly ., I get terrible headaches when exposed to Radio Frequency Radiation .

Families Advocating for Chemical and Toxics Safety (FACTS) respectfully asks you to deny Verizon's proposed cell tower at 244 Colgan Ave., due to lack of FCC-required evidence of "Probable Dropped Call Log Data Set."

Per the FCC, all carriers, including Verizon, are required to provide evidence that this Cell Tower is needed per dropped call logs in the form of a probable/queryable data set. Please ensure City of Santa Rosa includes with this important legal requirement by demanding Verizon provide the data set. Without this evidence of need, residents, businesses, and shoppers risk over-exposure to RF radiation. Please refer to the user manual for your cell phone to see the warning about cell phone radiation. Please see this Newsweek article that the proliferation of wireless radiation has not been adequately tested:

In addition, the FCC tests do not consider biological effects caused by anything other than the heat generated from radio-frequency energy, like altered protein expression or DNA damage. Experts and organizations like the Environmental Working Group have expressed concern over the testing rules for cell phones, citing studies that show links between cancers and cell phone radiation exposure. In 2011, a World Health Organization report classified radiation from cell phones as "possibly carcinogenic to humans," particularly as cell phone use relates to an increased risk for glioma, a malignant type of brain cancer.

Then there are the gaps in cell phone radiation testing. The American Academy of Pediatrics, for example, recently urged the FCC to begin taking child users of cellphones into account. "Children are not little adults and are disproportionately impacted by all environmental exposures, including cell phone radiation," their letter to the FCC reads.

https://www.newsweek.com/iphone-6-bendgate-apple-says-your-iphone-shouldnt-go-your-pocket-avoid-273313

FACTS is a project of the Center for Environmental Health, and we are an educational and advocacy non-profit organization that serves as a

clearinghouse for evidence-based information and expert resources in children's environmental health.

The Cell Tower is across from homes/residential apartments on Colgan Ave. These residents need to be protected for potentially excessive/redundant RF radiation.

Over-exposure to RF radiation is a real risk with negative health impacts.

Further context: Santa Rosa does not engage in ongoing cell tower monitoring of the RF radiation! So, once a tower goes up, it can be collocated, meaning other carriers can add their antennas onto the tower (and in this case, the fake pine tree). This will double the already intense RF radiation levels.

FACTS calls your attention to SafeTech4SantaRosa's measurement of radiofrequency radiation levels near similar towers using well-calibrated RF radiation meters. Due to the lobe-shaped directional radiating energy from the towers, we have found that RF radiation levels can actually increase with distance. We have found RFR levels of more than 600,000 uW/m2 (microwatts per meter squared) at 200 feet from a 12 antenna facility. Scientists have determined that levels over 1,000 uW/m2 can cause biological harm for long term exposure.

Thank you for your service in protecting our City.

I hereby object to the proposed LOCATION of the Verizon cell tower. I am in the process of preparing my objection to the location, and scanning the attachments. It will take me a couple of days to finish. I will forward to you upon completion.

Thank you.

Hello, I want to voice my concern for cell towers which emit high radio frequencies. Our bodies are vibrational. Every organ has a different frequency at which it functions optimally. When we are exposed to these radio or other frequencies, there is biological harm done to them. Over time dysfunction and illness occur, including cancer, brain disorders, etc.

Please look at the research-there is plenty of it- and make your decisions with the full facts. Don't allow big money to skew your decisions.

I appreciate all you do!

As an 80 year old resident of Vintage Park, I am attending the Dec 14 meeting. I am very concerned that this proposed Verizon tower is literally across the street. Such close proximity is clearly prohibited; extensive scientific research indicates it will negatively affect the health of our senior community.

It will surely also affect the Costco customers and staff on the other side.

And, finally, my Verizon phone works at peak performance, though such towers are only to be considered as correction to poor cell performance.

Please stop this plan with more time for exploration.

Please 🙏 do not allow Verizon to put another dangerous 5G tower behind Costco in Santa Rosa! It will endanger the health of many residents nearby, and shoppers in the area. The radiation levels exceed safety and will multiply with each carrier that tags on. Verizon has plenty of coverage in Santa Rosa, so there is no need and it can be refused.

No no no!

This tower will expose vulnerable residents, shoppers, businesses and employees to high levels of radiofrequency radiation.
This is an absolute fact.

We are told that this radiation is "within FCC limits for 30 minute exposure." Thousands of peer reviewed scientific studies prove biological harm at a fraction of FCC limits. *People are getting sick from this radiation.*
Why aren't we told this? Because the FCC is controlled by the very powerful telecommunications industry.
The City's HANDS ARE NOT TIED! Verizon must prove a gap in service coverage and prove their proposed tower is the least intrusive means of remedying that gap. They must also prove sufficient fall zones as well as electrical and fire safety.

A big problem: Santa Rosa does not engage in ongoing cell tower monitoring of the RF radiation!
And worst of all- once a tower goes up, it can be collocated, meaning other carriers can add their antennas onto the tower (and in this case, the fake pine tree). *This will double the already intense RFR levels.*

Members of SafeTech4SantaRosa have measured radiofrequency radiation levels near similar towers using well-calibrated RFR meters. Due to the lobe-shaped directional radiating energy from the towers, we have found that RFR levels can actually increase with distance. We have found RFR levels of more than 600,000 uW/m2 (microwatts per meter squared) at 200 feet from a 12 antenna facility.

Scientists have determined that levels over 1,000 uW/m2 can cause biological harm for long term exposure. Source: SafeTech4SantaRosa.org

This proposed 5G Verizon tower will have more than 20 antennas.
WE MUST STOP THIS PROPOSED FACILITY. PLEASE HELP!

I have not seen the agenda posted for the Planning Commission meeting on Dec. 14th. There is a telecommunication project proposed for 244 Colgan Ave. that will be heard at that meeting. Could you provide some more detailed information regarding this application? I would appreciate a link so I can view the entire application.

The public notice that appeared in the PD on Sunday, Dec. 3rd contained very little information, and the drawing of the faux tree cell tower with a number of antennas was quite blurry and not readable. We also don't know the name of the telecommunication company that will be housed on this tower, the

number and specs of the antennas, the engineering report, the RFR (radiofrequency radiation) compliance report, and other important info contained in the application.

Several days ago I visited the location and did not see the required sign posted informing neighbors and local businesses of this proposed installation. I will return later today to see if it is still missing.

December 12, 2023

Dear Santa Rosa Planning Commission Members,

I am writing to express my strong opposition to the proposal by Verizon to locate a transmission tower at XXXXXXXXX. I have several reasons for my concern about this tower.

First, describing its location as 'light industrial' surely only refers to where the tower is to be located. However, unlike buildings, for which the zoning designations were clearly defined, that designation fails to acknowledge the more than one hundred apartments on the other side of Colgan Rd., and they will be affected by the radiation produced by the Version tower.

Although the proposal cannot be rejected based on health effects, those will be enormous for the people living in the apartments, even though the tower will come close to falling under the FCC guidelines. But allow me to elaborate on what those radiofrequency radiation (RFR) levels will do to those living there, essentially 24/7. The FCC limit was based on an RFR level that would cause a 1.8 degree F temperature rise in living tissue in 30 minutes. But that will produce another 1.8 F rise in the next half hour. In 8 hours the 16 half hour segments will produce a temperature rise of 28.8 F.

From the distribution maps Verizon provided in its proposal, the apartments are all included in the region in which the RFR level is between 100 and 5 percent of the FCC limit. Giving Verizon the benefit of the doubt, I'll assume it's 10 percent, which would mean that the temperature rise would be 8.6 F each 24 hour period.

Of course, there are caveats. Verizon's proposal states that their levels exceed the FCC limits in some places, but that this would be corrected by a 3 db (actually, a factor of about 2) reduction. Who will check to see that this has been done? This must be specified.

Furthermore, the heating would not be uniform throughout a body as large as that of a person. If they rotated, as if on a barbeque spit, it would take longer to achieve the calculated effect. But the body's primary cooling mechanism, sweating, would have been used up far too soon to prevent disaster.

The conclusion from this: the FCC's limit might be appropriate for someone remaining in a high RFR environment for short periods of time, but they are disastrous for someone living in a place subjected to RFR at their limit. Furthermore, the above argument is based only on temperature effects, which the FCC has claimed are the only effects of RFR. This is clearly wrong, as evidenced by more than one thousand published research paper claiming effects such as cancer and others. Note that these were probably not funded by telecommunications companies, unlike many of the papers telecom claims give the opposite result.

So in the summary letter, the conclusion that there are no safety concerns raised by the tower is certainly incorrect.

My second point is with regard to the monopine tower. The plastic on them degrades over time and needs to be replaced every few years. The plastic will fall into Colgan Creek, where it will

enrich whatever body of water it flows into with the plastic. And this is an environmental hazard that must be addressed by Verizon. So they can ditch the monopine, but then they run into a problem with aesthetics. Legal challenges to monopines have established that the proposal can be rejected on this basis.

Finally, it is always desirable, and sometimes required, that a proposal for a new tower be accompanied by evidence that it is required to alleviate a gap in service. The Verizon proposal claims that their study of the service in this area is proprietary, so they apparently know if a gap in service exists at the proposed location. But if they won't provide it, then one can certainly ask if they've investigated other sites, perhaps to find one that won't have such a terrible impact on the people living in the apartments.

Yours sincerely,

Richard N. Boyd, Ph.D. (in physics)

Professor Emeritus, Ohio State University

Susan Dolan
137 Colgan Avenue, Apt. 2049
Santa Rosa, CA 95404
Cell: (707) 971-3187

Via E-mail

Suzanne Hartman, City Planner
And respected City Planning Commissioners
City of Santa Rosa
100 Santa Rosa Avenue
Santa Rosa, CA 95403

To be considered at the meeting of the Planning Commission on December 14, 2023, and at the hearing on December 18, 2023.

I strongly object to the proposed LOCATION for the placement of the Verizon cell tower at 244 Colgan Avenue, Santa Rosa, California.

Verizon is planning on placing the proposed tower in a dense area of the population and right across the street (about 50 feet) from my apartment complex.

My apartment complex is directly across the street from the proposed Verizon cell tower. I live in Vintage Park Senior Apartments. Our complex is less than 50 feet from the proposed tower! There are many seniors here already in poor health. The radiation waves travel 983.6 feet!

The proposed site located at 244 Colgan Avenue, Santa Rosa, CA has many nearby apartment buildings (including ours directly across the street), residences, businesses, stores, as well as an entire shopping center just a few feet on the other side of the proposed tower which includes a Costco, Target, Trader Joe's, and several other popular stores. This means thousands and thousands of people will be affected by the additional electromagnetic field (EMF) radiation from the proposed Verizon cell tower. There are already adverse health effects from the radiation. In addition, the radiation increases by 200% after 5 years. Not only that, the towers are going to increase exponentially unless we stop this runaway train!

I assume they are installing a 5G cell tower? If so, 5G needs more gigahertz and therefore, is much, much stronger as well as having more complex EMF and RF radiation which can be much more harmful in dense urban areas. It is not possible to accurately measure 5G emissions, "[T]he 5G radio emission fields are quite different to those of previous generations because of their complex beamformed transmissions in both directions – from base station to handset and for the return. Although fields are highly focused by beams, they vary rapidly with time and movement and so are unpredictable, as the signal levels and patterns interact as a closed loop system. Health - Action Against 5g In fact, Dr. Martin Pall has much more to say about the damage caused to our bodies from EMF radiation. Please look at his article.

There is very little research on anything, including the environment and birds, bees and trees, yet companies are pushing ahead with 5G. Apparently, China is finding that there is quite a negative affect [sic] on the delicate ecosystems in China with the use of 5G.

Also, pursuant to the "Oncology Letters," (here is the link to this article: Health risks from radiofrequency radiation, including 5G, should be assessed by experts with no conflicts of interest - PMC (nih.gov)), many of the reports on radiation health risks show no risk to health. This is because they were written either by or at the direction of a person with a vested interest in the project (i.e., a **conflict of interest**), i.e., Verizon. A conflict of interest will obviously result in a biased report.

Several scientists and doctors in the European Union called for a moratorium on the deployment of 5G because of the possible harm to human cells. A copy of that article written by Lennart Hardell and Michael Carlberg of The Environment and Cancer Research Foundation, is in the "Oncology Letters" mentioned above.

Many insurance companies will not cover injuries from EMF or radio frequency (RF) radiation. They list those types of injuries as exclusions. Why do you think that is? RISK to health. They know there is a huge risk because it is not being researched first. Shoot and ask questions later, right? See report by Dr. Elizabeth Lee Vliet Health Ranger Report: Dr. Elizabeth Lee Vliet warns about the dangers of 5G and EMF radiation | ripehealth - latest medical, fitness, healthcare and more. This article is current as of November 21, 2023. They know it causes damage to your health.

The Santa Rosa City Municipal Code, with regard to installation of cell towers, at section 13-06.070 states:

> **"Findings—Decisions—Consultants.**
>
> **(A)** Findings Required for Approval.
>
> **(1)** Except for eligible facilities requests, the Director of Transportation and Public Works or the City Manager or designee, as the case may be, shall approve an application if, on the basis of the application and other materials or evidence provided in review thereof, it finds the following:
>
> **(a)** The facility is not detrimental to the public health, safety, and welfare;
>
> . . . ."

You will note (a) above. We believe this facility WILL BE DETRIMENTAL to public health, safety, and welfare.

Theodora Scarato, MSW indicates that companies that install, sell, and use EMF radiation have advised their shareholders about the risk for lawsuit due to the effect of the radiation on our health. What happens when everyone is sued as a class action? Are we going to have to get all these cell companies out of bankruptcy like with PG & E? This cost would be enormous. Not only that, but the report states in pertinent part: "The proposed ordinance will focus on the placement, . . . in a manner that considers the . . . public health and safety . . . . " EPA Letter Confirms Lack of Wireless and 5G Safety Regulations for Birds, Bees and Trees - Environmental Health Trust (ehtrust.org)

In addition, Ms. Scarato received a letter from the Environmental Protection Agency Lee Ann B. Veal, Director, Radiation Protection Division, Office of Radiation and Indoor Air, (in the link in the previous paragraph) which confirms they have never reviewed the impact to birds, bees, and trees either. In fact, no agency has set limits for birds, bees, or trees. Studies on bees however, revealed that their behavioral effects disrupted navigation and their egg laying rate decreased. "Research has found a high level of damage to trees from antennae radiation" showing they sustained more damage on the side of the tree facing the antennae.

I recently saw a television series based on the gas leak from December of 1984 in Bhopal, India. They did not believe that anyone would possibly put a Union Carbide plant with a lethal chemical right in the middle of a large city in India. Union Carbide knew it was lethal because they ran tests 15 years prior which conclusively showed the MIC was fatal. But Union Carbide kept that information from the public and the nearby railroad. Then the accident occurred, a leak of the lethal chemical, and 15,000 people were killed. Not only that, but Union Carbide also kept secret that there was an antidote, but they did not allow the antidote to come into the city because it made them look guilty. I feel like that is what could happen here. And this is only the beginning. I believe we are being misled about the effects of cell towers, streaming, wi fi and cell phones because there is too much money in it. They will not abandon or change it because money is more important than people, just like in India.

What about the disaster in Chernobyl? Let us keep our citizens safe, please.

The Physicians for Safe Technology are a very good resource with regard to harm caused by cell towers and radiation as a result of wireless devices. Their link is as follows: Physicians for Safe Technology | Wireless Technology and Public Health (mdsafetech.org).

I know we cannot stop progress, and I know I want to continue to use a cell phone myself, but I would like to keep as safe as I possibly can until all of the risks are

known. We need to wait until more research has been done, especially for 5G. I do not keep my cell phone in the bedroom at night because I do not want it near me. I keep it in the living room. **Some say EMF and RF radiation is the tobacco of our generation**. See: Physicians for Safe Technology | Wireless Technology and Public Health (mdsafetech.org).

I propose that Verizon change the location of this cell tower away from the heart of residences and shopping centers to a more rural location. The radiation is also harming birds bees and trees though. If they are unable to relocate it, then I propose they try to work out a deal to share one of the other five (5), yes five, cell towers within a 1-mile radius instead of adding more cell towers. The effect of the EMF radiation decreases the further away the tower is.

The digital age is becoming a runaway train. We are not waiting to see the damage this radiation causes. See attached article, "EMF Caution." Will we care once it is known? What if your child or parent is damaged as a result? Will you care then? We need to think about our future, and especially the future of our children and grandchildren. What kind of world do we want to leave them with?

It is the job of the City of Santa Rosa to protect its residents.

Please move the proposed Verizon cell tower to a location that is less populated and away from senior citizens and protective of nature.

We need to find another way. I can be reached at (707) 971-3187.

Thank you for your consideration of my objection.

Sincerely,

Susan Dolan

Suzanne Hartman, Project Planner Santa Rosa City

https://childrenshealthdefense.org/defender/henry-hank-allen-chd-verizon-lawsuit-radiofrequency-radiation-cell-towers/

12/12/23

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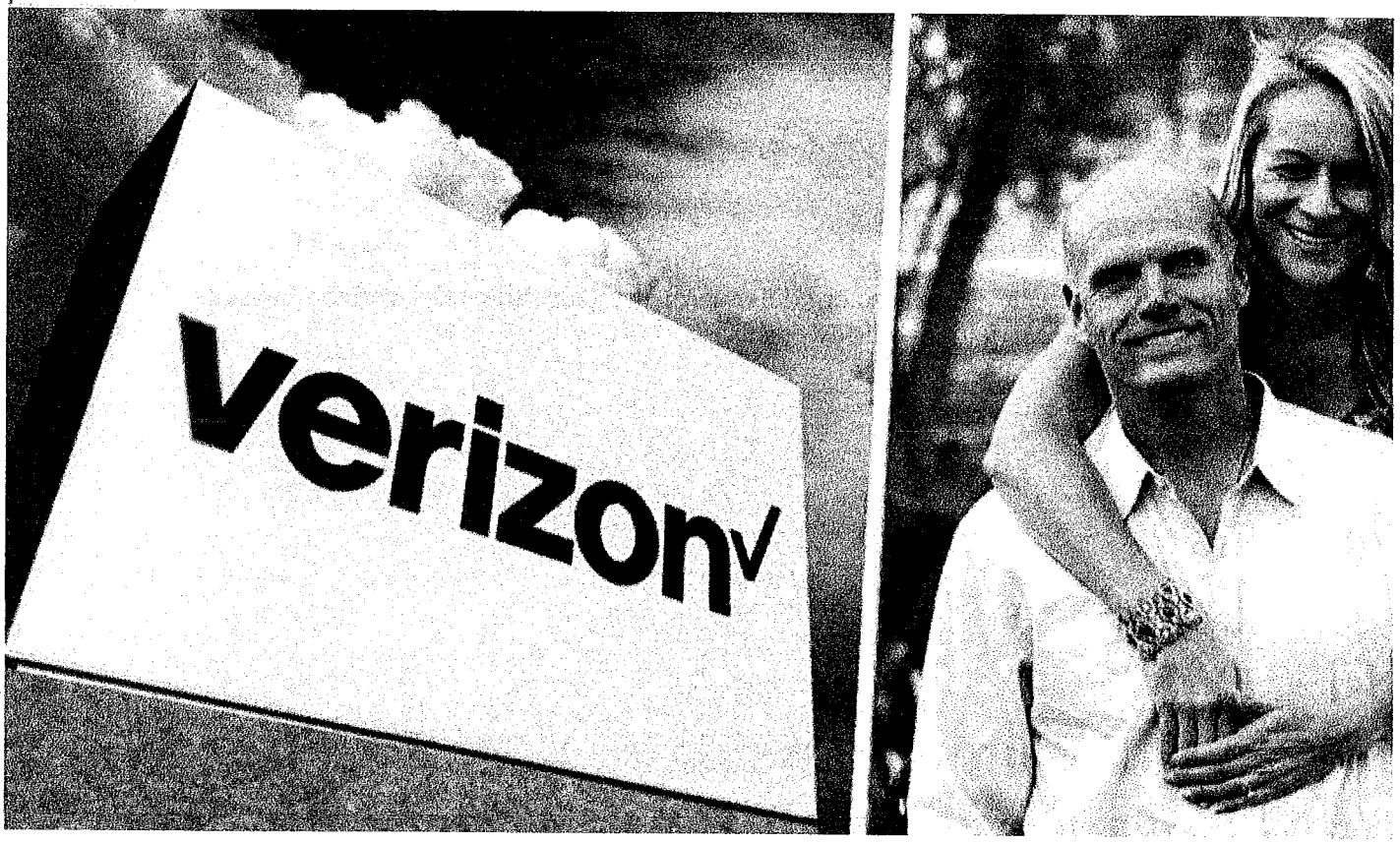
Big Tech
› News

CHD Funds Lawsuit on Behalf of Man Who Says Verizon Cell Tower Triggered Life-Threatening Cardiac Events

The lawsuit, filed today, could set an important legal precedent that would help people like Henry "Hank" Allen, who have electromagnetic sensitivity, fight back against cell towers being placed near their homes.

By
Suzanne Burdick, Ph.D. Brenda Baletti, Ph.D.

-cell-towers/



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An Idaho man alleging the radiofrequency radiation emitted by a cell tower installed next to his home triggered more than 15 episodes of atrial fibrillation today sued Verizon and other companies involved in the operation of the tower.

Henry "Hank" Allen, age 53, said his electromagnetic sensitivity (EMS) makes him vulnerable to life-threatening cardiac episodes, which began in April 2021, when Verizon activated the tower.

The lawsuit, funded by Children's Health Defense (CHD) and filed in the U.S. District Court for the District of Idaho Southern Division, could set an important legal precedent that would help others with EMS who want to fight back against having a cell tower placed near where they live.

W. Scott McCollough, lead litigator for CHD's Electromagnetic Radiation (EMR) and Wireless cases, told The Defender:

"It's becoming really clear that this massive deployment of wireless technology everywhere is functionally prohibiting a large number of people from being able to participate in society or even live safely in their own homes.

In addition to protecting disabled people individually, she said, the cases are testing whether the ADA can be used "as an effective means to push back against the uncontrolled rollout of wireless infrastructure."

"We are very excited to launch this new strategic line of cases, which we hope will shift the paradigm for people severely harmed and disabled by RF radiation," she said.

McCollough said these cases are significant because the number of people affected by EHS is substantial. "We're talking millions of people, and hundreds of thousands for whom it just ruins their lives completely."

"The numbers are such that, frankly, we expect to find that it overwhelms the people who are already disabled by other causes," he added, and people disabled by EHS must also be accommodated under the ADA.

Man moves to rural Idaho to escape RF radiation

Allen was diagnosed with EMS in 2014 while working as a licensed general contractor in California on job sites with high RF radiation.

After realizing how exposure to RF radiation was exacerbating his EMS symptoms, he and his family decided to relocate to a small farm in Idaho roughly two miles away from a cell tower.

Allen also changed careers to minimize his exposure to RF radiation by getting licensed as a real estate broker and working from his home, which he hardwired for internet access.

With these changes, Allen was able "to successfully live and work normally from home despite his disability" — until April 2021, when Verizon built a cell tower next to his property.

Shortly after Verizon turned on the tower, Allen's health "took a dramatic downturn" as he suffered atrial fibrillation and was rushed to the emergency room "unsure whether he would live," the complaint said.

A doctor did an echocardiogram, ran a full blood panel, did a cardioversion to restore a regular heartbeat and gave Allen IV drugs to slow his heart rate.

Two days later, it happened again.

In March 2022, Allen had invasive heart surgery — cardiac ablation — to treat the recurrent heart rhythm problems.

However, Verizon, AT&T and Dish in 2022 added additional antennas to the tower.

"This equipment … also triggers Mr. Allen's severe and in some instances life-threatening symptoms associated with his recurring and ongoing disability," stated Allen's lawyers in an

"This case is designed to recognize the fact that wireless technology does indeed make a lot of people sick, and also to give them some much needed relief."

In addition to Verizon, defendants in the suit include Horizon Tower LLC, which owns and operates the tower, and telecommunication providers AT&T and Dish Wireless, which also own and operate equipment at the tower site.

According to the lawsuit, Allen said the high levels of radiofrequency (RF) radiation emitted by the tower also exacerbated other EMS symptoms, including tinnitus, extreme fatigue, impaired memory and vision, sleep disruption, and flu-like symp

EMS, sometimes called electromagnetic hypersensitivity (EHS) or microwave syndrome, is the "medical term" for a federally recognized condition — protected under the Americans with Disabilities Act (ADA) — in which individuals suffer adverse health effects due to electromagnetic field (EMF) exposure.

Up to 30% of the U.S. population experiences mild EHS, 1.5-5% have moderate cases of the condition, approximately 1.5% suffer severe cases like Allen's, and approximately 0.65% cannot work at all because of their disability.

The complaint said Allen "lives and works in constant fear for his health and his very life" because of the constant RF exposure he is subjected to and the defendants "refuse to recognize the federal disability laws that would solve the conflict."

McCollough said in a press release the lawsuit is a civil rights case that offers "a new legal theory" under the ADA:

"Federal courts must apply federal disability laws to protect people disabled by RF radiation coming from cell towers.

"If Hank's case is successful, the court will either remove the tower, or otherwise order the telecom defendants to modify their operations in order to not so intensively beam RF radiation through Hank's home so he can live in peace."

More lawsuits like this are coming

Allen's case is the first in a series of strategic cases that CHD will fund later this year and in 2024 on behalf of individuals with EMS, according to Miriam Eckenfels-Garcia, director of CHD's EMR program.

"In these lawsuits, we are leveraging federal disability laws to petition for reasonable accommodation for clients that have been disabled by RF radiation coming from a cell tower near them," Eckenfels-Garcia told The Defender.

August 2023 letter to Verizon, AT&T and Dish in which they asked the companies to provide disability accommodations/modifications.

Allen has "exhausted all available self-help options," according to the complaint, including painting his house with RF-blocking paint, tinting the windows with RF-blocking tint, utilizing wire screens and wearing special clothing that blocks RF.

The RF emitted by the transmitting equipment threatens the plaintiff's life. "His condition is such that he may die as a result of the next cardiac event caused from RF exposure," the complaint alleges.

The wireless companies responded to Allen's request for a reasonable accommodation/modification by claiming that the federal disability laws do not apply to their tower operations because they do not meet the criteria for a "place of public accommodation."

The "Courts of Appeals" are split, according to the complaint, on whether a "place" refers to an actual physical structure or whether it also applies to goods, services and privileges that are also offered "virtually."

The complaint argues that the space on the tower leased to the telecommunications companies and associated infrastructure that are necessary to access the internet constitute a physical "place" subject to compliance with the ADA. It adds that given that access to the virtual realm is essential to modern life, it should also be considered a "place," under the ADA.

Although Allen subscribes to wireless services, he cannot use them without accommodation because they severely exacerbate his disability.

Local residents didn't want tower

A planning commission in Ada County, Idaho, granted Horizon a conditional use permit to construct the tower in 2018, the complaint says.

However, after local residents told their representatives that extra communications infrastructure was not necessary, elected Ada County representatives voted to overrule the commission and deny Horizon's permit application.

The tower was very unpopular in the Eagle, Idaho, community, according to the complaint, which already had extensive broadband coverage that the city had paid to install and was not dependent on the tower or antennas.

Instead, the tower and antennas were useful and lucrative to wireless companies to expand private mobile data service.

Horizon appealed and Ada County settled the dispute by reinstating the conditional use permit. The tower and its first antennas were built in 2020 and 2021 and RF began transmitting from the tower in March 2021.

The plaintiff's symptoms began soon thereafter.

Here's what Allen wants from the lawsuit

Allen hopes the court will rule on at least three things.

First, he is asking the court to rule that provisions in the ADA apply to cell towers when they transmit RF radiation through the homes and bodies of EMS-disabled individuals.

In turn, Allen hopes the court will conclude that Horizon, Verizon, AT&T and Dish violated the ADA by refusing to engage in a good faith process to accommodate his disability and that he is entitled to a remedy that will allow him to access services without being substantially injured by them.

Second, he asked the court to end the defendants' discrimination against him by mandating the tower be moved "to a new location that is reasonably calculated to avoid injuring the disabled population," meaning that it wouldn't be installed right next to other citizens with EMS.

Alternatively, he is asking the companies to be compelled to utilize their existing technological capabilities to adequately reduce the amount of RF energy directed at his home and body.

Third, he is asking the court to compel the companies to stop discriminating against him and instead make reasonable accommodations so he can access their services.

Allen is requesting a jury trial, where a jury can provide him with the requested relief, as well as attorney fees and costs.

I am unable to attend the public hearing but want to object to the proposed Cell Tower at 244 Colgan Ave. I live at 2008 Bedford St. in close proximity to the proposed location. I received no direct notice of this planned construction and only learned of it second hand and with almost no time to this hearing. This proposed tower is far too powerful to be in close proximity to a high population area. There is lots of research showing cell-tower radiation is harmful to humans and particularly at the high power of this proposed installation. I request this application be rejected in favor of lower-powered and more distributed antenna that would be less harmful.

SIncerely,
John Sullivan

I am writing in opposition to the above referenced project.

Cell towers and related equipment can cause wildfires. Each cell tower is an electrical device. When they fail, electrical fires can be triggered. Cell tower fires cannot be extinguished through conventional means. Anyone putting water on a cell tower fire before the electricity is cut, which can take up to 90 minutes, may be electrocuted. Imagine a cell tower fire in a housing project or next to a densely trafficked facility such as Costco in the midst of a Santa Ana and there is nothing you can do until PG&E cuts the power.

I am the co-author of the Fire Safety Protocol passed unanimously by the Malibu City Council as part of their macro tower telecommunications ordinance. Our team – a telecommunications attorney, an electrical engineer, and myself – a Fire and Utility Consultant and an honorary firefighter with the San Diego Fire Department – did an investigation of Southern California wildfires over a 15 year period. Through fire investigation reports, thus far we have linked four major fires to telecommunications equipment, causing well over $6 billion in damages: Guejito Fire in San Diego (2007) which merged into the explosive Witch Creek Fire; Malibu Canyon Fire (2007); Woolsey Fire in Malibu & LA County (2018); Silverado Fire in Irvine (2020).

Please see the attached fire bulletin I created to assist in educating planners, municipal governments, state and federal legislators regarding the fire risks of telecommunications equipment.
According to the FCC, safety belongs to the locality to regulate. That includes safety setbacks. I would urge Santa Rosa leaders to keep cell towers away from residential projects to allow residents time to escape in the event of a cell tower fire.

Every single cell tower that comes into your area brings with it added risk of fire.

I will add that I have worked with the firefighters of California for 20 years. I was the organizer of the SPECT brain scan study of firefighters that took place in 2004. [See attached] This was a pilot study of six firefighters only, but we had 25 out of 27 firefighters who were symptomatic at a station where there was a cell tower placed directly in front of the facility. After a five-year exposure to the 2G tower, all six participants in the study were found to have permanent brain damage. These were strong, healthy firefighters prior to installation of the tower. Therefore, I would urge caution whenever placing cell towers near residential/heavily trafficked areas in your community.

Respectfully submitted,
Susan Foster
Fire and Utility Consultant
Honorary Firefighter San Diego Fire Department
858-756-3532

Hello Suzanne,

I'm writing this email to notify you of my opposition of the installation of Version Cell Tower.

The tower prospective location, 244 colgan ave Santa Rosa, Ca 95492, sits to close to homes, school!!!!!! And shopping center.

My I also mentioned that the surrounding neighborhood are all low income neighborhood, and I am almost certain that no one in these communities has been notified of such plans.

Thank you,

Paula R Mendoza Anguiano

To: Suzanne Hartman, City Planner, City of Santa Rosa and Planning Commission Members
Re: Verizon Wireless Communications Facility at Colgan Ave
Dear Ms. Hartman and Planning Commission Members,

I have serious reservations about the engineering expert that Verizon has hired to present its case for approval of this cell tower on Colgan. I am concerned about his ability to provide your commission with an objective viewpoint with regard to safety margins on the FCC Maximum Permissible Exposure limits.

The **Maximum Permissible Exposure** limits for radiofrequency radiation established by the FCC are based on thermal effects only. Thus, if the radiation raises the temperature of flesh less than one degree Centigrade in 30 minutes it's considered "safe." That very definition makes that MPE unsafe for general use, since it invites disaster for someone who has to endure that limit 24/7!

There are 1,800 peer reviewed scientific papers, compiled in the most recent BioInitiative Report, that prove biological harm at levels vastly lower than the MPE limits which have nothing to do with tissue heating. The "non-thermal" effects of RF radiation from wireless sources include DNA damage, loss of DNA repair capacity, neurotoxicity, genotoxicity, and cancers such as brain tumors.

I have special expertise in this matter of scientific research. I am the author or coauthor of more than 250 scientific papers on nuclear physics, astrophysics, and astrobiology, as well as ten books, one on the perils and safe uses of electromagnetic devices. I also spent four years directing the astrophysics portfolio at the National Science Foundation.

When I evaluate scientific papers, I pay special attention to who funded the research. If it's the federal funding agencies, National Science Foundation, Department of Energy, and National Institutes of Health, the work can be taken seriously, since grantees from those agencies have no responsibility to kowtow to the wishes of the agency, other than to acknowledge their support.

However, that is not the case for research funded by entities with profit in mind. For example, with regard to industry supported research, if the results are not in keeping with the party line of that entity, they will never be published without modification to suit the funder's objectives.
This is particularly relevant to research funded by the telecommunications industry; it always supports the telecom party line. This criterion also applies to oral presentations

With regard to Mr. Witkowski's "expert" testimony, I posit that he has not done no research on this subject. If he had, he could never say, "Thus, even if an RFR source is imparting energy at 100% of the FCC's safety guidance, that level is still below the effect level." That statement is patently false. Given that, can one believe any of this Verizon supported testimony?

Sincerely,
Richard N Boyd, PhD

By interesting coincidence we have nearly the same name. My name is Susan Hartman. I am a senior living at Vintage Park Apartments, across the street from the proposed Verizon towers. There are over 200 older adults living at this complex. Seniors are more vulnerable to the health problems caused by adverse conditions in their environment. For the protection of my own health and that of my neighbors I am opposed to the construction of these towers. Thank you for considering the opinion of someone older who has your name (almost)!

I am writing to voice my concern regarding the proposed install of the cell tower, I live on Bedford St, very close to the tower in question. I object to this whole heartedly, it would be criminal to install this tower and expose local shoppers and residents to emissions from this tower, shoppers in Costco would literally be feet away without knowledge of the exposure. This is too close to populated areas and should be installed at suitable distance from the city and its residents. Colgan park is also very close by where kids play all day, if this is approved then close the park as again families and children would be unknowingly exposed to the radiation jeopardizing future health.

Appreciate all concerns are reflected upon.

Ranbir

I'm writing to you today in objection of having a Verizon cell tower installed on Colgan Avenue. I've been a resident at La Esplanada Place for over 15 years and have several concerns regarding the proposed tower and very against the installation.

1. My main concern and reason why I'm against the tower installation is due to the RFR emissions these towers produce and how this will impact my health and the health of my community. It's been proven that these towers emit radiation and can cause harm with long-term exposure. The community that lives off of Colgan is not an affluent one, and already has a disadvantage in affording health care and may not be able to afford the care needed with any health complications caused by these towers.

2. I'm against the tower installation because it will impact my property value negatively by reducing the value. This county is already expensive, and this will make it even harder for anyone who owns in our HOA to sell.

3. I'm against the tower installation because Colgan Avenue is such a high traffic area, both in commuter vehicles and pedestrian traffic. The street itself has more pot holes than any road I've been on in the city. The city should focus on repairing the road rather than allowing the build of a cell tower. The tower would not add any value to an already deteriorating and unstable road.

I strongly encourage the City Planning Commisson to reconsider approving the tower installation as this will not be a benefit to the community but only a hindrance. The negative impacts of this tower will certainly outweigh any benefit.

Sincerely,
A Resident at La Esplanada Place

FCC 13-39

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Reassessment of Federal Communications Commission Radiofrequency Exposure Limits and Policies	)	ET Docket No. 13-84
	)	
Proposed Changes in the Commission's Rules Regarding Human Exposure to Radiofrequency Electromagnetic Fields	)	ET Docket No. 03-137

To: Office of the Secretary
Federal Communications Commission
Washington, DC 20554

Comment Filed by: Susan D. Foster, MSW
15957 Avenida Calma
Rancho Santa Fe, CA 92091
susan.foster04@gmail.com
858 756-3532

September 2, 2013

AFFIDAVIT OF Susan D. Foster, MSW

State of California]

San Diego County]

I, Susan D. Foster, MSW, attest that my statements are true to the best of my knowledge.

Comment round for FCC ET Docket No. 13-84 and ET Docket No. 03-137

1. My name is Susan D. Foster, MSW. My address is 15957 Avenida Calma, Rancho Santa Fe, CA 92091.

2. I am a medical writer and the organizer of a brain study of California firefighters exposed to RF radiation from a cell tower adjacent to their fire station of over 5 years.

3. In 2004 I organized a pilot study of California firefighters who worked up to ninety (90) hours per week in fire stations with cell towers in close proximity to the two (2) stations where the firefighters work, eat, and sleep. The men were experiencing profound neurological symptoms following activation of the towers in 1999.

4. The symptoms experienced by the firefighters, all of whom had passed rigorous physical and cognitive exams prior to being hired by the fire department, included but were not limited to the following: headaches, extreme fatigue, sleep disruption, anesthesia-like sleep where the men woke up for 911 calls "as if they were drugged", inability to sleep, depression, anxiety, unexplained anger, getting lost on 911 calls in the town they grew up in, a twenty (20) year medic forgetting basic CPR in the midst of resuscitating a coronary victim, immune-suppression manifest in frequent colds and flu-like symptoms.

5. The neurological testing and SPECT scans [single-photon emission computed tomography] of the brain were conducted by Gunnar Heuser, MD, PhD and J. Michael Uszler, MD. All six (6) firefighters were found to have brain abnormalities on SPECT scan. The doctors thought they would find areas of limited function in the brain based on the

symptomatology. Instead, they found a pervasive, hyper-excitability of the neurons which suggested the exposure to RF (microwave) radiation was causing the neurons to continually fire, without rest. RF radiation appeared to act as a constant stimulant even when the men were away from the station, and in repose. The SPECT scans were considered abnormal in all 6 firefighters.

6. Cognitive function, reaction time, and impulse control were measured objectively using T.O.V.A. testing [Test of Variables of Attention]. In all six (6) firefighters, impairment was found with cognitive function, reaction time and impulse control. Three (3) of the six (6) firefighters were captains. The captain on each shift is in charge of making life altering decisions for all firefighters and potential victims. They order firefighters into a burning building, and conversely, they order them out before a roof may collapse, for example. Impairment of all three critical functions could cost firefighters and the community they serve either life or limb.

7. The testing was conducted in 2004. The cell towers are in place at the two (2) fire stations where the test subjects work for the duration of a twenty-two (22) year lease. The men we tested have remained at the stations as this is the only work they know in the only community they have ever lived in. One (1) of the six (6) men tested did move to another department after his wife gave birth to to a boy who was diagnosed with Autism at age 2. This was the first live birth experienced by the "firefighter family" at this department since activation of the tower three (3) years earlier.

8. I have followed up with the firefighters who report continued symptoms as described in paragraph 4. Additionally, all firefighters report profound memory loss.

9. Two (2) of the firefighters, men we did not test in the pilot study but men who were exposed to RF radiation from the cell tower since their installation and activation in 1999, have gone out on psychiatric disability. This is almost unheard of among firefighters. The diagnosis was Post Traumatic Stress Disorder for one firefighter; he went out on an emergency run, and simply stopped talking after he returned to the station. The second

firefighter suffered an apparent break with reality. This occurred in the fire station when he returned following a short term disability for an unrelated injury. This break with reality was followed by an abrupt collapse and loss of consciousness. Because two (2) women have suffered strokes while in the fire station with the towers fully activated, Vascular Spasm Stroke (VSS) is suspected as a possible cause by Dr. Heuser and myself of having caused not only the strokes, but it is suspected in the potentially inaccurate diagnoses of the two (2) "psychiatric" cases among the firefighters. If not treated with rest and supplemental oxygen, it is possible for some VSS patients to have difficulty regaining speech and full cognitive abilities. This may be a case of misdiagnosis by the treating physicians who were unfamiliar with the potential of cell towers to create thermal effects well under the FCC limit of 1,000 uW/cm2, thus heating blood in the brain and inducing VSS. Further study of these men is imperative.

10. What is particularly germane to the critical decisions the FCC is currently facing regarding RF safety guidelines is the fact the FCC currently allows 1,000 microwatts per centimeter squared (uW/cm2) as an emission standard from cell towers. Yet all the symptoms attributed by the firefighters, as well as measurable brain and central nervous system abnormalities described above, occurred within close proximity to a cell tower measured at between 1 - 2 uW/cm2 by Peter Sierck, BBEC, CEO of Environmental Testing & Technology in Encinitas, CA. Thus the emissions from towers were measured at approximately 1/1000$^{th\ to}$ 1/500th of the FCC's allowable limit. "Hot spots" of reflected radiation were measured at 15 and 30 uW/cm2, yet these "hot spots" were still a fraction of what the FCC allows. Therefore, **I strongly suggest the FCC is not basing its standards on biological effects by taking into consideration non-thermal effects, but rather physics with respect to the belief only thermal effects can be deleterious.** The FCC must recognized the principles of physics do not protect the brains and central nervous systems of the strongest among us, our firefighters.

11. The failure to protect our populations based on biological effects of exposure to RF (microwave) radiation at non-thermal levels is an inherent shortcoming of the current FCC policy with respect to cell tower emissions and cell phone absorption. The adverse biological

impact of these exposures are grossly underestimated. The FCC does not have independent science that can justify the massive exposure to RF radiation that currently exists from cell towers and cell phones. The story told by our small pilot study of firefighters in California should be a warning with respect to the current failure to recognize **harmful neurological impact of non-thermal levels of RF radiation**.

12. Based on the neurological abnormalities Dr. Heuser and I found in the firefighters, including hyper-excitability of the neurons which can results in cell death and consequent neuro-degenerative diseases such as Alzheimer's, Parkinson's Disease and ALS, I urge the FCC to reflect on the gravity of the decision facing you now, and I implore all Commissioners to reduce the allowable level of RF radiation immediately, and to not only recognize the adverse health effects from non-thermal levels of RF radiation, but to actively and aggressively protect and education the general public through policy change and PSAs.

13. Finally, the FCC is not a health agency, yet it is entrusted with making decisions that impact the health of every American, including the unborn and those who cannot – through inability or lack of knowledge of the issues and dangers at hand – speak for themselves. Many consumers are encouraged through industry advertising to believe that their children will be disadvantaged if they do not have the latest wireless technology. Given the most recent culling of science in the BioInitiative Report 2012, this reckless promotion without any proof of safety puts them and their progeny at risk for neurological, immunological and reproductive harm. Furthermore, the "revolving door"-culture between the FCC and the telecommunications industry works against the best interest of consumers' health and safety. Both the FCC and the industry reach for a common refrain to hang on to their egregiously high regulatory limits which the FCC tries to pass off as "safety limits", but clearly they are not. That refrain tells the public time and again that "there is a lack of scientific consensus about the adverse health effects" at exposure levels at or below the existing FCC limits. **No, there is not a true lack of consensus.** There is a flagrant disregard by the FCC for excellent, peer review science showing adverse health effects at less than 1% of what the FCC allows. Even if this were not the case, when have we determined everyone must be on the same side, the same page, before precautionary approaches are implemented? Did we

wait for this 100% accord on the science regarding DDT? No, if we had done that, Dow Chemical would never have agreed their product was dangerous and the world would be a less safe place than it is now. The same argument can be used for tobacco. It is past time for the FCC to lean toward the side of protecting human life rather than telecommunications industry profits. I contend a true Precautionary Approach would be both efficient and practical. It would protect human life, the quality of those lives, prevent disease, enhance the opportunity for human potential by not insidiously eroding our greatest natural resource – the human brain, and it would keep health care costs down. I implore the FCC to recognize that six (6) out of six (6) SPECT brain scans were abnormal for the firefighter subjects, and they are the strongest of the strong among us.

Respectfully submitted by

Susan D. Foster, MSW
15957 Avenida Calma
Rancho Santa Fe, CA 92091
September 2, 2013

Susan D. Foster, MSW

(Electronically submitted)

January 9, 2024

City of Santa Rosa
Planning Commission
100 Santa Rosa Avenue
Santa Rosa, CA 95407

Submitted via email to: **SHartman@srcity.org**

RE: Environmental Concerns Over Conditional Use Permit Application "PRJ23-009"

Mrs. Hartman,

On behalf of Russian Riverkeeper (RRK), I welcome the opportunity to submit this letter in response to City of Santa Rosa Conditional Use Permit Application "PRJ23-009" which is proposing placement of a 69ft ft Monopine Cellular Tower at 244 Colgan Ave., Santa Rosa, CA. Russian Riverkeeper is a local nonprofit that has been successfully protecting the Russian River watershed since 1993. Through public education, scientific research and expert advocacy, RRK has actively pursued conservation and protection for the River's mainstem, tributaries and watershed. Our mission is to inspire the community to protect their River home, and to provide them with the tools and guiding framework necessary to do so. For that reason, we send the following letter.

I. Proposed Site Location and Environmental Background

The proposed location for the 69ft Monopine Cellular Tower, 244 Colgan Ave., Santa Rosa, CA, abuts Colgan Creek and is located within the larger Russian River Watershed. The proposed location of this tower is within approximately 150 feet of the open waterway.

Located within the Laguna-Mark West sub-watershed, Colgan Creek flows south-west from Santa Rosa to Sebastopol where it meets with the Laguna de Santa Rosa, before flowing to Mark West Creek and the Russian River mainstem. Starting with its headwaters on Taylor Mountain, Colgan Creek is known to drain approximately 5,000 acres of land with a mixture of manmade and natural channels in its upper sections. Cutting through the more industrial parts of Santa Rosa, Colgan Creek is primarily fed by rainfall, storm drains, and has long suffered from poor water quality. Over the last two decades, Colgan Creek has received millions of dollars in restoration efforts to help return it to a natural riparian ecosystem that can provide important salmonid and other species habitat.

Further, Colgan Creek flows directly into the Laguna de Santa Rosa, a renown freshwater wetland area and the largest tributary to the Russian River. The Laguna is home to hundreds of sensitive species of birds from bald eagles to hummingbirds; mammals such as mink, badger, bobcat and river otter; and numerous fish and amphibians, including several rare and endangered species like our steelhead and coho salmon. Unfortunately, the Laguna is also at the bottom of an urbanized watershed and is currently impaired for nitrogen, phosphorous, sediment, temperature, mercury, and dissolved oxygen. These impairments continually place the Laguna's vast

biodiversity at risk and is a primary reason for millions of dollars in restoration efforts over the last few decades.

Waters then travel to Mark West Creek, another critical habitat area for listed salmonid and other species, before entering the Russian River and eventually the Pacific Ocean. This means that anything entering the water upstream in Colgan Creek has the potential to interact and influence each of the important habitat areas downstream of it, further negatively impacting our diverse ecosystems. It is important that measures are continually taken to protect these critical waterways and restoration efforts from new harms that may result in further loss of critical habitat and protected species.

II. PVC and Microplastics

Plastic has been mass produced for more than 60 years now, and humankind has produced over eight billion metric tons of it since then. Unfortunately, despite the many beneficial uses plastic has provided us, we have become a single-use society that produces more waste than can be sustainably eliminated.

This issue is two-fold. First, only 9% of all produced plastic has been recycled and another 12% incinerated. The rest, almost 80% of the plastic ever created, continues to sit in landfills or will end up in the natural environment, eventually finding its way into our rivers, streams, and oceans. Plastic is accumulating in our oceans at an alarming rate—the largest concentration of ocean plastic waste, the Great Pacific Garbage Patch located between California and Hawaii, is estimated to measure three times the size of France, while images of animals entangled in plastic or having died of starvation, are shockingly common. Plastic pollution has become a very visible issue.

Secondly, and most important to the proposed project, is the largely indestructible nature of plastics. Plastics continually break down into smaller and smaller pieces (aka: microplastics) over time as they become exposed to the natural elements, and leech a never-ending stream of toxic chemicals into the environment. Microplastics are known to be extremely harmful to our freshwater species and habitat, as well as our ocean environment downstream. In addition to their chemical toxicity, many species ingest microplastics thinking they are food and/or inadvertently due to the small size of particles causing further harms. Once ingested, microplastics can block the gastrointestinal tracts of organisms and trick species into thinking they do not need to eat, leading to starvation. Many toxic chemicals can also adhere to the surface of plastic and, when ingested, contaminated microplastics can expose organisms to high concentrations of toxins. These toxic contaminants then ultimately get into the food chain and the human body—with an average intake of 5 grams of microplastics per person per week that adds up quickly.

Thus, it is important that we continue to reduce the use of plastic, especially in our more sensitive habitat areas, so these harms can be prevented to extent possible.

RUSSIAN RIVERKEEPER

A. Transportation of PVC and Microplastics throughout the Watershed

Monopine cellular towers are given their “pine tree” look via use of the materials noted above and is concerning for a few reasons.

Primarily, there have been an increasing number of concerns made over use of these monopines when in close proximity to sensitive water bodies and critical habitat areas (i.e. Lake Tahoe) such as we have here. These concerns have largely stemmed from the observance of faux PVC branches and pine needles falling from these monopines and littering the ground below them. The closer these fall to a waterbody, the increased likelihood of them entering that waterbody and dispersing throughout the interconnected watershed and harming habitat and species alike. Be it through wind, stormwater runoff, or direct deposit, the light weight of PVC makes transport of these fallen materials across the landscape fairly easy.

In this particular instance, the 6ft tall perimeter fence only extends about 5ft beyond the largest proposed branches and the lowest branches are expected to be about 14ft above the top of that fence. This creates a high probability that any falling “tree needles” will land outside the rocked area directly below the tree. As a result, the rocked area and conditional maintenance efforts within the plan area are unlikely to be effective in preventing any “tree needles” from entering our waterways. Rather, these needles are more likely to land outside the plan area, either by landing directly in Colgan Creek or getting flushed into our storm drains and then Colgan Creek.

Due to the 69-foot height of the monopine, even a gentle breeze is capable of carrying small needles outside the monopine’s perimeter. Roads and other ground obstacles are not going to prevent this from occurring, and gentle breezes can be found year-round in Sonoma County. Sonoma County is also known for its much stronger, annual Diablo Winds which are known to have up to 40mph gusts and making it even more likely that lightweight needles will be carried outside of the monopine’s perimeter, into Colgan Creek, and into our stormdrains.

Then, even if local breezes do not directly transport the PVC branches and pine needles into the local waterways, as soon as the winter rains come, runoff will carry them the rest of the way via storm drains. Further, because the City’s MS4 flows directly into water bodies without any treatment it is critical to keep it pollutant free. As is, any monopine needles that may land outside the plan’s perimeter are likely to be transported via stormdrains to the closest waterbody during the first 1-inch rain event and then throughout the lower portion of the watershed. Therefore, dispersal of these PVC branches and needles can end up thousands of feet, and eventually miles, away from the actual monopine cellular tower itself.

As such, there is still an increased chance of our local weather patterns carrying these fallen materials into our sensitive water bodies and critical habitat areas. Once in our waters, the PVC can cause irreparable harms as noted above—especially when in high quantities such as those that would potentially come off this monopine. Already dealing with historic toxicity issues and a plethora of other plastic and pollutant sources contributing to water quality impairment, it is important that all measures be taken to protect against these harms.

III. Conclusion

We appreciate the opportunity to provide input on this important issue and welcome any questions that you may have.

Sincerely,

Don McEnhill
Executive Director
Russian Riverkeeper

Jaime Neary
Staff Attorney
Russian Riverkeeper

MEMO

To: Santa Rosa Planning Commission
c/o Suzanne Hartman, Planner

Re: Proposed Verizon Cell Tower - PRJ23-009, 244 Colgan Ave

From: Paul-André Schabracq

Date: January 11, 2024

I urge you to deny the application for the proposed cell tower referenced above. Please consider the following facts in support of findings of fact for denial:

1. **Failure of the applicant to provide sufficient evidence to establish a 'Gap in Service' - a public necessity for the proposed wireless facility at the location and height proposed.**

The applicant did not demonstrate with solid evidence that "*there exists a public necessity that is required to render safe and adequate service*" and that there are compelling reasons that their installation is more feasible at their proposed location than at other locations.[1]

The Gap in Service data submitted by Verizon is superficial and inconclusive, demonstrating only minor gaps along the 101 Highway which can be readily explained by measurements taken inside a rapidly moving vehicle. Without providing such readily obtainable hard data, the Planning Commission was given manipulated computer simulation or modelling designed to show that a pre-determined need existed for their proposed cell tower[2]. For this reason, this application should disregard the coverage data provided by the applicant as unreliable. It has clearly not met the required public necessity test - otherwise known as a gap in service.

Verizon already has facilities less than 2 miles from the proposed Colgan Creek location:
750 Aston Avenue: 0.5 miles
250 Kawana Springs Road: 0.7 miles
1235 Santa Rosa Avenue: 0.6 miles
1028 Pressley Street: 1.0 miles
1680 Allan Way: 1.2 miles
3101 Old Petaluma Hill Road: 1.4 miles

Thw attached Verizon's maps indicate there are large macrotowers by the Fairgrounds (less than 2 miles away), as well as towers near 4th Street, in Roseland, off Stoney Point, and many other locations throughout the city.

[1] Consolidated Edison Co v. Hoffman, 43 N.Y. 2d 598 (1978) and T Mobile Northeast LLC v. Town of Islip, 893 F.Supp.2d 338 (2012)

In addition, the attached maps also indicate that there are over 40 cell towers and small cell antennae in Santa Rosa. In addition, there is another Verizon cell tower on Kawana Springs Road located 1/4 mile from this proposed cell tower. There is clearly no "gap is service."

Moreover a more accurate, reliable and least expensive provision of hard data to establish the location, size and extent of significant gaps in wireless service are *drive test data* combined with *dropped call records* - which have not been provided.

2. **The proposed cell tower is not in compliance with the intent of the Zoning Ordinance.**

Santa Rosa Zoning Ordinance 20.44.060 (F) Commercial Telecommunications Facilities states *All major commercial telecommunication facilities, other than government owned facilities, shall be prohibited in R zoning districts or within residential areas of a PD zoning district.* The intent of this zoning regulation is to protect residences from the impacts of cell towers and to protect the public health and safety.

Although the proposed cell tower may be allowed with a CUP by the underlying zoning, it is located adjacent to multifamily housing. The RF emissions from the proposed cell tower is in close, direct line-of-sight of the residents of these apartments.

3. **Safety Issues - Fall Zone: The proposed location for the monopole cell tower fails to establish a Fall Zone or Safe Zone and Non-Compliance with the National Electrical Code and other applicable City Electric Codes.**

Due to the documented dangers of irresponsible placement of monopole cell towers, local governments across the United States have enacted zoning provisions to ensure that the installation of such towers include a fall zone or safe zone of sufficient size to preserve the health and safety of nearby residents.

The most common causes of failure and complete collapse of a monopole cell tower are base plate failures and fires, failure of flanges, joints and bolts. Baseplate failures cause the entire tower to collapse and fires either cause the tower to warp or to collapse. A partial list of over 30 cell tower structural failures can be found at https://ehtrust.org/cell-tower-safety-risks-fires-and-collapse/ Cell tower fires are a recognized and well-documented danger. Refer to https://www.ourwebofinconvenienttruths.com/fires-and-collapses/

Engineering firms have conducted thorough analyses of the causes of such failures and fires and have proposed safer designs for monopole cell towers. Refer to the engineering analysis at this link
https://www.towernx.com/downloads/Monopole_Structures_Current_Issues.pdf

The fall zone area for the proposed cell tower has not been included in the applicant's submission nor discussed in the staff report. It is unknown whether the construction plans and specifications for the proposed cell tower have been reviewed by an independent structural engineer for the City. Consequently, the risk of cell tower collapse and/or fire represents danger to the public health and safety, providing a key finding supporting denial of this project.

Furthermore, under FHA regulations, no FHA (federally guaranteed) loan can be approved for the purchase of any home which is situated within the fall zone of a cell tower. See HUD FHA HOC Reference Guide Chapter 1 hazards and nuisances. As a result, there are cases across the country within which: (a) the homeowner purchased a home, (b) a cell tower was thereafter built in close proximity to it, and (c) as a result of same, the homeowners could not sell their home, because any buyer who sought to buy it could not obtain a FHA guaranteed loan. This supports the finding that cell towers cause loss of property values in the proximate surrounding area.

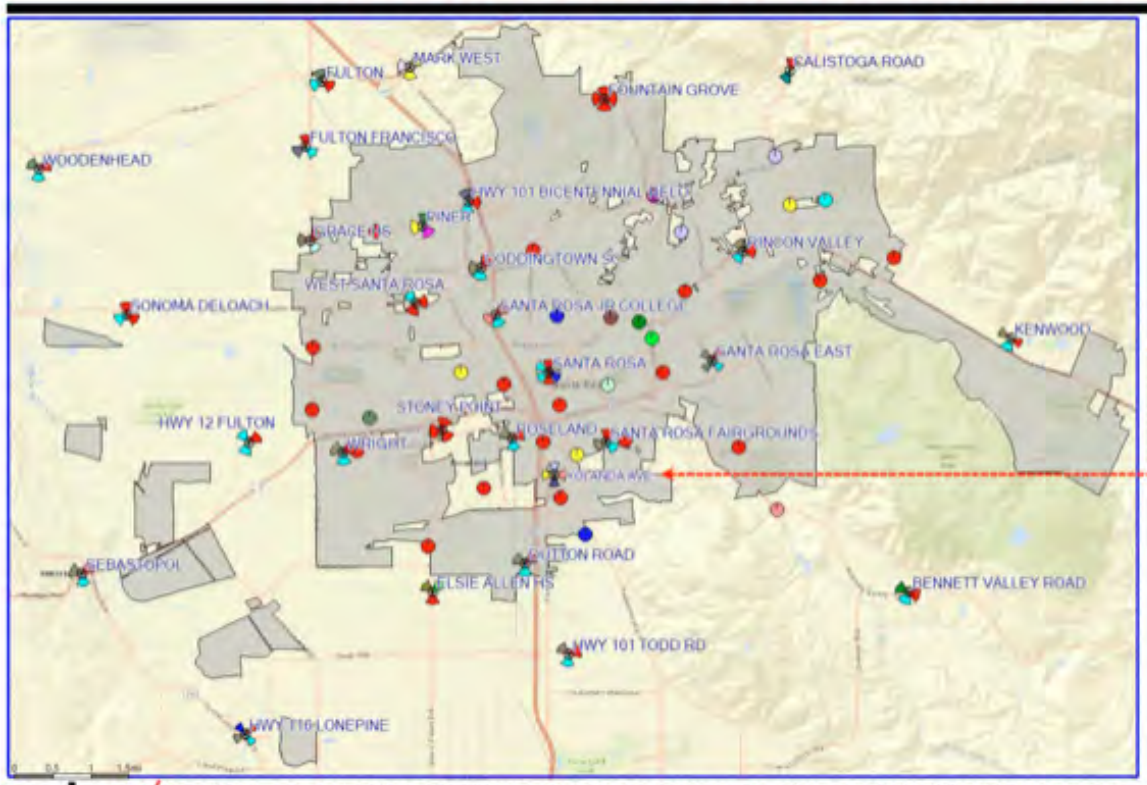
Conclusion

Denying this celltower application is a first step.

The broader problem is that Santa Rosa needs robust Telecommunications Ordinance protective of the health and safety and property values of the community to the maximum extent allowed by current federal regulations.

Other communities that have passed ordinances to restrict cell antennas near homes and schools include California jurisdiction such as Petaluma, Mill Valley, Malibu, Santa Barbara, Encinitas, Fairfax, Palo Alto, Walnut City and San Diego County.

SANTA ROSA MAP: EXISTING VERIZON SITES



Existing Macro Sites

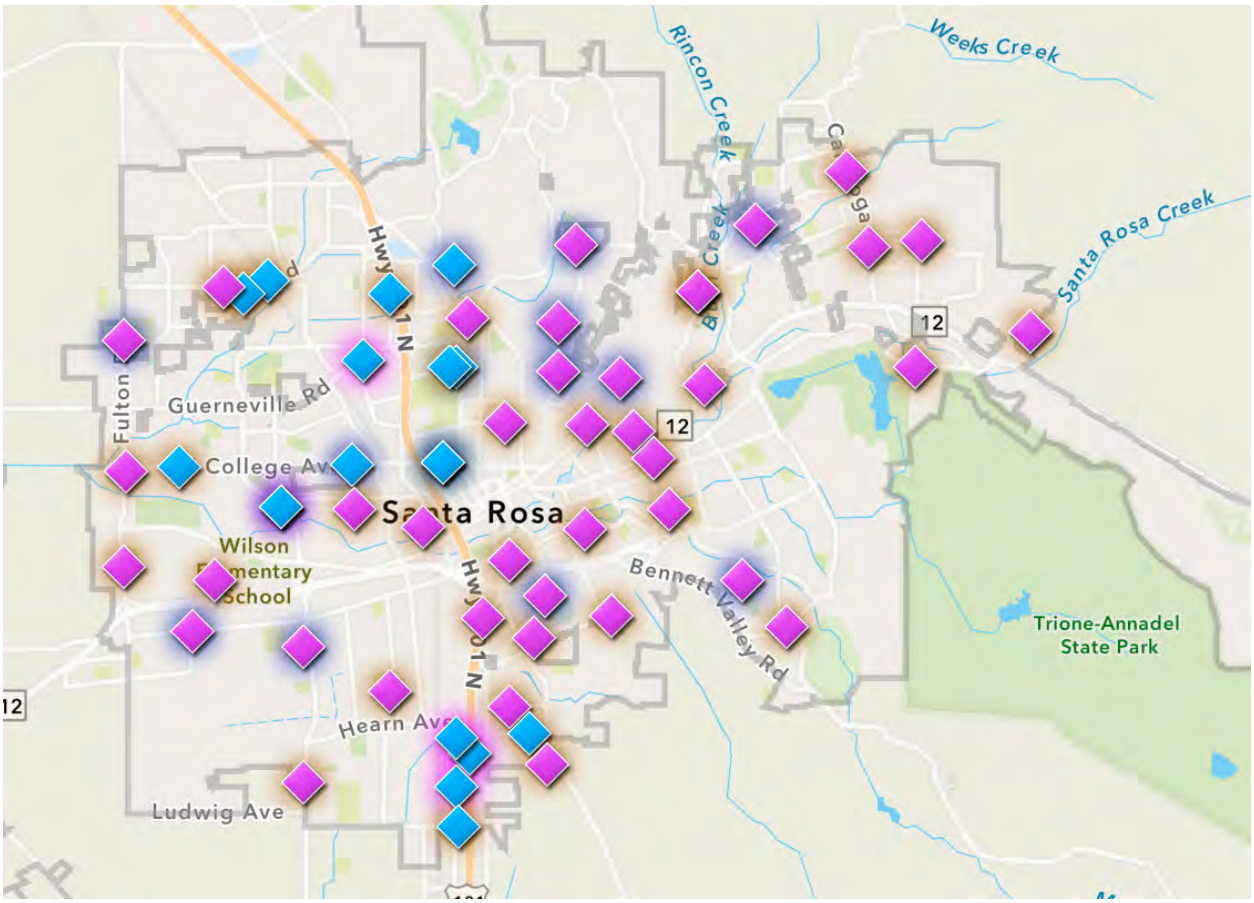
Existing Small Cells

Note: Small Cells are not labelled to simplify a readable map

Proposed VZW Wireless Facility
Site Name: **YOLANDA AVE**

Santa Rosa City Border

VERIZON CELLPHONE TOWERS and SMALL CELL SITES in SANTA ROSA



08/24/23 • Updated 08/28/23

FCC Limits for Wireless Radiation Exposure Decades Out of Date, Experts Say

The Federal Communications Commission bases its safety limits for human exposure to wireless radiation on a handful of studies from the 1970s and 1980s with tiny sample sizes. Meanwhile, the agency continues to ignore a federal court mandate to review recent science and update its limits to protect children, animals and the environment.

By Suzanne Burdick, Ph.D.

***Editor's note**: This is the third in a three-part series examining key questions in the public debate on the safety of wireless radiation. Part 1 asked, How did the FDA arrive at its position on cellphones and cancer? Part 2 asked, What's behind the rollout of 5G? Part 3 asks, What's the science supporting the FCC's current limits for human exposure to wireless radiation?*

The Federal Communications Commission (FCC) largely bases its radiofrequency (RF) radiation safety standard for humans on a handful of studies done in the 1970s and 1980s — well before most people started using cellphones. And those studies used small sample sizes, according to Devra Davis, Ph.D., MPH, founder and president of Environmental Health Trust (EHT) and Theodora Scarato, EHT's executive director.

The FCC in 1996 set the human exposure safety limits for wireless RF radiation which, in turn, are now used in the U.S. for all phones, wireless products and networks, including cell towers and 5G. EHT is a nonprofit scientific research and education group focused on the effects of wireless radiation. Davis and Scarato spoke with The Defender about the science the FCC used to set current human RF radiation exposure safety limits — and why these limits need to be changed.

Davis, a toxicologist and epidemiologist and author of more than 200 peer-reviewed publications, is also the founding director of the Board on Environmental Studies and Toxicology of the U.S. National Research Council at the National Academy of Sciences. Davis said the FCC today "does not employ a single health expert," and that it relied on "outdated studies of small numbers of experimental animals" which only focused on "how hot they needed to become (as measured by rectal probes) to stop seeking food."

She added: "Ignoring the two-year-old court ruling in EHT et al. v. FCC, the agency continues to set standards for human exposure limits based on outdated tests that only investigated what level of acute exposures for these small numbers of animals would cause them to stop seeking food when they were hungry and did not consider the possibility of long-term chronic impacts." EHT and other experts have submitted several thousand pages of more recent studies evaluating chronic effects on young children, on reproduction, the nervous system and the general environment, according to Davis.

Current safety limits 'just outrageous'

In 1984, the U.S. Environmental Protection Agency (EPA) was tasked with developing safety limits. In the early 1990s, the agency was investigating the possible carcinogenicity of electromagnetic fields (EMFs). However, in the mid-1990s — just as the agency was poised to release its recommendations — the EPA's efforts in this area were defunded and the agency in 2020 confirmed it did not have a "funded mandate for radiofrequency matters."

The FCC in 1996 set RF radiation limits by adopting two recommendations, previously made by other organizations, both based on the amount of heat absorbed by the body from RF radiation sources using what's called the specific absorption rate (SAR). SAR is a measure in units of watts per kilogram of the rate at which electromagnetic energy from an external source, like a cellphone or cell tower, is converted into heat within biological matter. The FCC on Aug. 1, 1996, adopted the National Council on Radiation Protection and Measurement's (NCRP) recommended Maximum Permissible Exposure (MPE) limits "for field strength and power density for the transmitters operating at frequencies of 300 kHz to 100 GHz."

"MPE is derived from SAR, so it is fundamentally a measure based on tissue heating and not on [other] biological effects, such as biochemical changes related to oxidative stress or DNA damage," Scarato said. NCRP's MPE recommendation came from its 1986 report, which the EPA told the FCC in 1993 it should ask the NCRP to revise to "provide an updated, critical and comprehensive review of the biological effects on RF radiation and recommendations." However, the FCC didn't follow the EPA's advice, so the NCRP limits adopted by the FCC were not based on an up-to-date science review, Scarato said.

The same day the FCC adopted the NCRP's MPE limits, it also adopted the SAR limits standard set by the Institute of Electrical and Electronics Engineers (IEEE) and the American National Standards Institute (ANSI) "for devices operating within close proximity to the body." The FCC used IEEE's 1991 exposure limits standard, which was an updated version of the ANSI's 1982 limits standard that ANSI later ratified. "These exposure limits were developed solely to avoid heating and became the foundation of the FCC's standards for testing wireless radiating devices," Davis said. According to the IEEE guidelines, tissue heating — or "thermal effects" — was the only biological harm humans might suffer from RF radiation and those harms could only happen at a SAR level greater than 4.0 W/kg, as averaged over the whole body.

Scarato said the IEEE points to just three studies to support its belief that, "Here is how we know the heating level that is harmful from RF." They included: a 1977 study involving eleven rats, a 1982 study involving five rhesus monkeys, one squirrel monkey and one rat, and a 1984 study involving five rhesus monkeys. "These studies," she said, "exposed tiny samples of animals to short durations of RF radiation — as in, 40 to 60 minutes — and did not look at the impact of chronic exposure to RF radiation."

"Also, the RF radiation signals used in the experiments were not like current wireless signals, which are quite complex with modulation and pulsations, waveform characteristics understood to make them more bioactive," Scarato added. The temperature at which the rats and monkeys stopped pressing a food lever was the level identified as the "harmful" level of radiation, with the rationale being that the heat caused "behavioral disruption," she explained.

"Then, arbitrary so-called 'safety factors' were used based on zero data quantifying what level would be needed to protect a child or adult with a medical condition," Scarato said. Scarato said many more recent studies with large sample sizes show evidence of harmful effects from RF radiation on adults and children at levels below a SAR of 4.0 W/kg. But such studies are attacked — or "war-gamed" — by the telecommunication industry as unacceptable, she said.

"How is it acceptable for FCC officials to set safety limits based on studies of just a few animals performed decades before the modern-day cellphone even hit the market?" Scarato asked. She continued: "Can you imagine if someone said, 'We did a study of 11 rats over four decades ago? They'd be like, 'Come on!' … Or a study with just one squirrel, five monkeys and a rat? And we used an exposure for under an hour. "They would likely respond, 'These studies are not valid to ensure safety.' "If you go to the current IEEE standard, they list these antiquated studies as the basis for to their recommended safety limits."

"The radiation limits do not protect against health effects from long-term exposure," Scarato said. "It's just outrageous."

FCC limits ignore nonthermal, long-term effects

Davis and Scarato are not alone in criticizing the scientific basis of the FCC's RF radiation safety limits. Henry Lai, Ph.D. — a research professor in bioengineering at the University of Washington who has studied RF radiation for more than three decades — told The Defender:

"The FCC RFR-exposure guideline is based on one type of biological response, i.e., a particular behavioral effect in animals, whereas there are many reports on other biological effects of the radiation, such as genetic damage, free radical changes, etc. "These effects have been shown to occur at intensities much lower than the FCC guideline recommendation. They are not included in the guideline setting." Lai said the FCC standard did not consider the effects of long-term exposure and from different forms of wireless radiation.

Additionally, the International Commission on the Biological Effects of Electromagnetic Fields (ICBE-EMF), a "consortium of scientists, doctors and related professionals" who study RF radiation, in an October 2022 peer-reviewed article argued the FCC's limits were based on scant science and many erroneous assumptions. The ICBE-EMF said "25 years of extensive research" showed the assumptions underlying the FCC's limits were "invalid and continue to present a public health harm."

The ICBE-EMF noted that the International Commission on Non-Ionizing Radiation Protection — the private organization that recommends human exposure limits used by many countries internationally — issued a standard soon after the FCC, using the same kind of antiquated studies and the same logic of using SAR as an appropriate means to measure the impact of RF radiation on the human body. Citing more than 200 scientific studies, ICBE-EMF said: "Adverse effects observed at exposures below the assumed threshold SAR include non-thermal induction of reactive oxygen species, DNA damage, cardiomyopathy, carcinogenicity, sperm damage, and neurological effects, including electromagnetic hypersensitivity.

"Also, multiple human studies have found statistically significant associations between RFR exposure and increased brain and thyroid cancer risk. … "Consequently, these exposure limits, which are based on false suppositions, do not adequately protect workers, children, hypersensitive individuals, and the general population from short-term or long-term RFR exposures."

No U.S. standard protecting against long-term RF exposure

Norbert Hankin — former head of the EPA's radiation protection division — in a 2002 letter acknowledged that no federal agency had yet developed RF radiation limits concerning long-term exposure to levels below what causes tissue heating. After Congress' Government Accountability Office in 2012 published a report urging the FCC to reassess its guidelines, the FCC in 2013 published an inquiry to decide whether the guidelines should be reviewed.

Despite thousands of pages of scientific evidence of biological effects from RF radiation submitted to the inquiry docket by the scientific community and comments from hundreds of people who believe RF radiation exposure made them sick, the FCC in Dec. 2019 closed the inquiry, saying: "We resolve a Notice of Inquiry that sought public input on, among other issues, whether the Commission should amend its existing RF emission exposure limits. "After reviewing the extensive record submitted in response to that inquiry, we find no appropriate basis for and thus decline to propose amendments to our existing limits at this time."

Court orders FCC to address RF impacts on kids and the environment

Children's Health Defense (CHD) challenged the agency's decision in a lawsuit filed Feb. 2, 2020.

Erica Rosenberg, an attorney with over 30 years of experience who formerly worked in the FCC's Wireless Telecommunications Bureau, also disagreed with the FCC's decision. She told The Defender: "It is hard to make sense of the agency's not revising the standard when 20-plus years of 'new' data was before it and in that same time period, wireless infrastructure and use had increased considerably."

CHD's suit was consolidated with similar cases brought by EHT and Consumers for Safe Cell Phones. CHD, EHT and the petitioners won the historic case. On Aug. 13, 2021, the U.S. Court of Appeals for the District of Columbia Circuit ruled the FCC failed to consider the non-cancer evidence regarding adverse health effects of wireless technology when it decided that its 1996 radiofrequency emission guidelines protect the public's health.

The panel majority said the FCC must also:

"(ii) address the impacts of RF radiation on children, the health implications of long-term exposure to RF radiation, the ubiquity of wireless devices, and other technological developments that have occurred since the Commission last updated its guidelines, and

"(iii) address the impacts of RF radiation on the environment."

Yet two years later, the FCC still has not complied with the court's order despite an April 2023 petition from CHD that threatened further legal action.

‘We have a long over-due obligation to consider potential consequences to other species from our current unchecked technophoria’

The impact of RF radiation on the environment and wildlife is an especially dire situation, according to research published by B. Blake Levitt, a science journalist who researched the biological effects of RF radiation since the late 1970s; Albert Manville, Ph.D., a John Hopkins University senior lecturer in energy policy and environmental studies who previously served as senior wildlife biologist with the U.S. Fish & Wildlife Service for 17 years; and Lai.

Levitt, Lai and Manville in 2021 published a three-part series of peer-reviewed papers — part 1, part 2 and part 3 — on EMF/RFR effects to flora and fauna. Levitt and her colleagues later said in a November 2022 article:

“We have a long overdue obligation to consider potential consequences to other species from our current unchecked technophoria — an obligation we have thus far not considered before species go extinct … the evidence requiring action is clear.”

RF regulators must listen to biologists, not just engineers and physicists

In the third article of their 2021 series, Levitt, Lai and Manville said that since the 1940s, it’s largely been engineers and physicists who have created the protocols for research on RF radiation and human health upon which RF radiation regulations rely — and this must change.

What is needed is to reintegrate biology — “which studies whole dynamic living systems” — with physics and engineering, “that focus on how to create and make technology work.”

They said:

“Electromagnetism is fundamental to life — indeed all living things function with biological microcurrent without which life would not exist … Yet biologists have consistently been left out of full participation in safety and environmental issues in anything other than cursory inclusion.”

Levitt, Lai and Manville also said biologists must speak up to get their voices heard. “The physics/engineering disciplines have had the subject to themselves for decades and are somewhat territorial about it.”

Engineers and physicists tend to focus on linear cause-effect models in both technology design and exposure standards setting.

“They tend be less interested in the confounding complexities of biology which are mostly nonlinear and unpredictable,” Levitt, Lai and Manville said.

RF radiation a form of ‘energetic air pollution’

In their November 2022 article, Levitt, Lai and Manville call RF radiation “a form of energetic air pollution” that “should be regulated as such.”

U.S. law defines air pollution as, “Any air pollution agent or combination of such agents, including any physical, chemical, biological, radioactive (including source material, special nuclear material, and byproduct material) substance or matter which is emitted into or otherwise enters the ambient air.”

Levitt, Lai and Manville said:

“Unlike classic chemical toxicology pollutants in which a culprit can typically be identified and quantified, RFR may function as a ‘process’ pollutant in the air not unlike how endocrine dysruptors [sic] function in food and water in which the stressor causes a cascade of unpredictable systemic effects.”

Regulatory agencies should set “long-term chronic low-level” RF/EMF exposure guidelines for not only humans but wildlife, they said, and develop mitigation strategies where feasible.

“Full environmental reviews should be conducted prior to the licensing/buildout of major new technologies like 5G,” they added, “and environmental laws/regulations should be strictly enforced.”

This article was corrected to clarify that Levitt, Lai and Manville published together in 2021 and that Levitt, not Lai, was the first author for their 2021 and 2022 publications referenced in the article.

Suzanne Burdick, Ph.D.

Suzanne Burdick, Ph.D., is a reporter and researcher for The Defender based in Fairfield, Iowa.

See more info at ehtrust.org

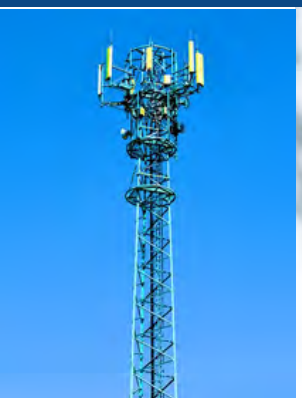
ENVIRONMENTAL HEALTH TRUST

5G, CELL TOWERS AND SMALL CELLS

SCIENTIFIC RESEARCH

WWW.EHTRUST.ORG

CHILDREN'S VULNERABILITY TO WIRELESS RADIOFREQUENCY (RF) RADIATION



The American Academy of Pediatrics states:

"In recent years, concern has increased about exposure to radio frequency (RF) electromagnetic radiation emitted from cell phones and phone station antennas. An Egyptian study confirmed concerns that living nearby mobile phone base stations increased the risk for 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."

–American Academy of Pediatrics
HealthyChildren.org

Cell towers and cell phones emit wireless radiofrequency (RF) radiation.

Children are more vulnerable to RF radiation, just as they are to other environmental exposures. They have proportionately more exposure to RF compared to adults. More importantly, a child's brain is rapidly developing and more sensitive. Even very low exposures in childhood can have serious impacts later in life.

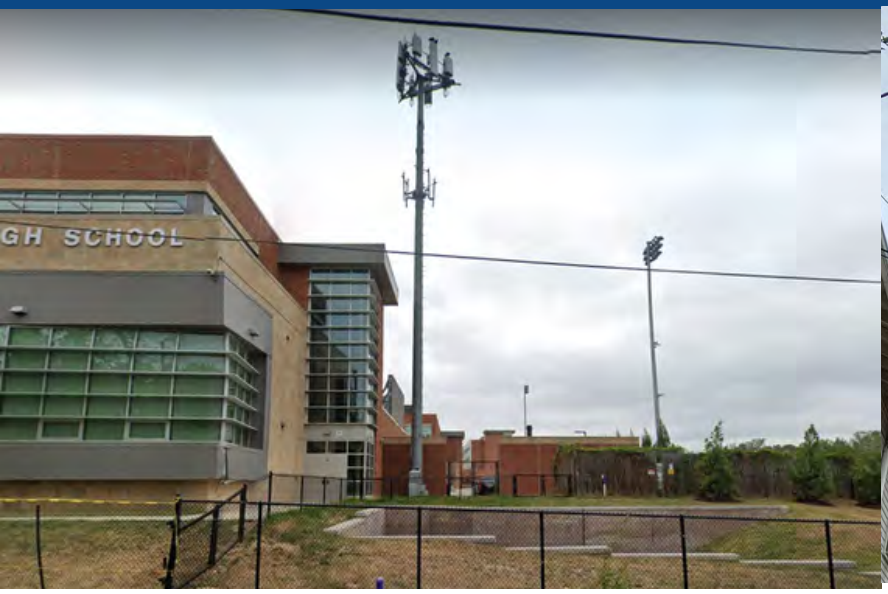
Children absorb higher levels of RF radiation deeper into their brains and bodies because they have:

- Thinner skulls allow RF radiation to move easier into the brain.
- Higher water content in brain tissue which is more conductive to electricity.
- Smaller heads result in a shorter distance for the RF to travel from the skull to critical brain regions important for learning and memory.

Children are more sensitive to RF impacts because:

- Their brains are still developing.
- Children have more active stem cells- a type of cell scientifically found to be uniquely impacted by RF.
- Children will have a longer lifetime of higher exposures, starting from before they are born.

PUBLISHED RESEARCH STUDIES



RESEARCHERS RECOMMEND CELL TOWERS BE DISTANCED AWAY FROM HOMES AND SCHOOLS

The review paper entitled "**Limiting liability with positioning to minimize negative health effects of cellular phone towers**" reviewed the "large and growing body of evidence that human exposure to RFR from cellular phone base stations causes negative health effects." The authors recommend restricting antennas near homes, and restricting antennas within 500 meters of schools and hospitals to protect companies from future liability (**Pearce 2020**).

An **analysis** of 100 studies published in *Environmental Reviews* found approximately 80% showed biological effects near towers. "As a general guideline, cell base stations should not be located less than 1500 ft from the population, and at a height of about 150 ft" (**Levitt 2010**).

A **review** published in the *International Journal of Occupational and Environmental Health* found people living less than 500 meters from base station antennas had increased adverse neuro-behavioral symptoms and cancer in eight of the ten epidemiological studies (**Khurana 2010**).

A **paper** by human rights experts published in *Environment Science and Policy* documented the accumulating science indicating safety is not assured, and considered the issue within a human rights framework to protect vulnerable populations from environmental pollution. "We conclude that, because scientific knowledge is incomplete, a precautionary approach is better suited to State obligations under international human rights law" (**Roda and Perry 2014**, **PDF**).

CELL TOWERS NEAR SCHOOLS

SCHOOL CELL TOWER SETBACKS

Many communities have policies, ordinances or zoning that ensures cellular antennas are restricted to a specific minimum distance from schools. Hempstead, New York requires a special use permit for cell towers near schools.

Examples of cell tower/4G/5G small cell setbacks/preferred placements for schools:

- Palo Alto, California: 1,500 feet
- Copake, NewYork :1500 feet
- Los Altos , California: 500 feet
- Walnut City, California: 1,500 feet
- Bar Harbor, Maine: 1,500 feet
- Sallisaw, Oklahoma: 1,500 feet
- Shelbourne , Massachusetts: 1,500 feet
- Stockbridge, Massachusetts: 1,500 feet
- San Diego County California 1,000 feet
- Encinitas California:500 feet
- Scarsdale New York: 500 feet
- Ithaca, New York: 250 feet

CELL TOWERS REMOVED FROM SCHOOL GROUNDS

- Milpitas California: School Board asked Crown Castle and T-Mobile to relocate the cell tower to remote location.
- Ripon California: Sprint moved the cell tower at elementary after students and staff developed cancer and parents argued children should not be guinea pigs.
- Alameda California cancelled cell tower contracts.
- Dekalb County Georgia dropped school tower plan.

SCHOOL BOARDS

- Palo Alto Unified School District Cell Tower Resolution supports the City 1,500 setback and opposes cell tower "on or in close proximity to schools to ensure individuals, especially children, are protected from the potential negative effects associated with radiation exposure."
- West Linn-Wilsonville Oregon School Board prohibits cell towers on school property.
- Vancouver School Boards Resolution: 1,000 feet
- Greenbelt Maryland Council opposes school towers.

DID YOU KNOW?

- The International Association of Firefighters passed a Resolution opposing cell towers on its stations in 2004 after a study found neurological damage in firefighters with antennas on their fire stations.

LOS ANGELES UNIFIED CA SCHOOL DISTRICT

- 3 resolutions opposing cell towers on school property.
- The District Office of Health and Safety developed a "cautionary level" for radiofrequency radiation 10,000 times lower than FCC regulations because, *"it is believed that a more conservative level is necessary to protect children, who represent a potentially vulnerable and sensitive population."*

SCHOOL BOARDS THAT REVERSED COURSE

- Montgomery County Maryland Schools policy does not allow cell towers on elementary schools.
- Prince George's County Maryland School Board decided not to renew a cell tower construction master leasing agreement that had allowed over 60 schools to be marketed as cell tower sites.
- Portland Oregon Schools ended new leases for cell towers.

EXPERT RECOMMENDATIONS

- The New Hampshire State Commission 5G Health and Environment Report recommends a setback of 1640 feet for schools.
- The Collaborative For High Performance Schools (Green building rating program) has LOW EMF Criteria which includes no cell towers on school property.

THE EPA SCHOOL SITING GUIDELINES

Lists exposure to electromagnetic fields and the fall distance as "potential hazards" from cell towers. The EPA guidelines recommend schools "identify and evaluate cell towers within ~200 feet of prospective school locations."

PUBLISHED RESEARCH

- 500 meter buffer recommended for schools to reduce liability and minimize risk (Pearce 2019)
- A moratorium on 5G pending safety research (Frank 2020)
- A precautionary approach is better suited to State obligations under international human rights law (Roda and Perry 2014)
- Increased cancer deaths near cell antennas (Rodrigues 2021)
- Studies find: DNA Damage(Zothansiama 2017), Diabetes (Meo 2015), Cognitive effects (Meo 2018), sleep problems and headaches (Abdel-Rassoul 2007, Levitt & Lai 2010, Shahbazi-Gahrouei 2013)

CELL TOWERS & WIRELESS

BC CONFEDERATION OF PARENT ADVISORY COUNCILS

- Two resolutions. One calls on each Board of Education to have one public school at each education level that is free of Wi-Fi, cordless phones, and cell phones.
- The second calls on the Boards of Education to "cease to install Wi-Fi and other wireless networks in schools where other networking technology is feasible."

CALIFORNIA PTA

- Resolution on Electromagnetic Fields
- PTA can educate and inform districts, councils and units about the potential hazards of EMFs to encourage school districts and schools to develop risk reduction policies and to disseminate information on the subject."

PALO ALTO, (CA) PTA

- Fact sheet on "Safe Use of Technology" which distributed to all the schools in the Palo Alto Unified School District

PACIFIC GROVE (CA) PTAs

- Forest Grove Elementary Pacific Grove Middle School and Pacific Grove High School PTAs sent a letter to City Council opposing a high school cell tower.

FLETCHER HILLS (CA) PTA

- Resolution encouraging schools to use cable lines Internet connections and to avoid wireless networks on campus.

FLETCHER HILLS (CA) PTA

- Resolution encouraging schools to use cable lines Internet connections and to avoid wireless networks on campus.

PHOENICIA ELEMENTARY NY PTA

- Sent a letter to the Onteora School District calling for the Wi-Fi to be turned off.

NEELSVILLE MIDDLE SCHOOL PTA (MD)

- Voted to oppose proposed cell tower.
- Hosted parent information session with both the cell tower company and Environmental Health Trust.

NEW YORK STATE PTA

- Resolution on Cell Towers supporting:

1. laws that regulate tower placement near schools
2. research into the long-term effects of RFR
3. education for parents and school officials regarding cell towers and health.

CASTLE HILL HIGH SCHOOL (AUSTRALIA) P&C COMMITTEE

- Funded ethernet plugs to reduce wireless exposure in classroom.
- Developed "Mobile Phone Safety Tips & Cyberbullying Information," which includes how to reduce cell phone and wireless radiation

MONTGOMERY COUNTY (MD) PTA

- Safe Tech PTA Committee shares online and print resources on reducing RFR exposure and on digital safety issues such as privacy.
- Meets monthly with school IT department.

HILLSMERE ELEMENTARY SCHOOL PTA (MD)

- Sent letters to the school board in opposition to cell towers near the school.

BRIARLAKE ELEMENTARY (GA)

- Voted to oppose cell tower after board approved towers on schools.

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ENVIRONMENTAL HEALTH TRUST

WI-FI IN SCHOOLS

UNITED EDUCATORS OF SAN FRANCISCO

- Resolution on Safer Technology calls for the California cell phone advisory on how to reduce cell phone exposure be disseminated to students and staff.
- Webinars on reducing RF exposure.

CANADA TEACHER FEDERATION

- Briefing document "Wi-Fi in School" recommends limiting Wi-Fi.

UNITED TEACHERS OF LOS ANGELES

- 2013 Resolution "UTLA will advocate for technological solutions that maintain technology upgrades while not increasing employees exposure to electromagnetic radiation."

UNITED FEDERATION OF TEACHERS

- Website shares Dr. Moskowitz's "Reducing Exposure to Wireless" brochure and The BabySafe Project "What You Need to Know About Wireless Radiation and Your Baby."

ELEMENTARY TEACHERS FEDERATION OF ONTARIO

- Call for Wi-Fi moratorium until health studies done (Limestone).

BC TEACHERS FEDERATION

- Resolution supporting members suffering from electromagnetic hypersensitivity by ensuring that their medical needs are accommodated in the workplace.

NEW JERSEY EDUCATIONAL ASSOCIATION

- Recommendations in "Minimize health risks from electronic devices" detail how to reduce physical health risks from devices including wireless radiation.

ONTARIO ENGLISH CATHOLIC TEACHERS

- Position Statement recommends wired networks as WI-FI "may present a potential health and safety risk or hazard in the workplace."

GREATER VICTORIA TEACHERS ASSOCIATION

- Recommends minimal or non-use of Wi-Fi.

NEW YORK STATE UNITED TEACHER UNION

- Resolution "Hazards of Wireless Radiation Emission"and "Best Practices" recommend wired ethernet connections.
- Webinar "Risks of wireless technologies and protecting children and staff in schools."

AMERICAN FEDERATION OF TEACHERS

- National Conference presentation about wireless radiation posted online.

NEW JERSEY EDUCATIONAL ASSOCIATION

- Put devices on desks, not laps.
- Hard wire all devices that connect to the internet.
- Hard wire all fixed devices such as printers, projectors and boards.
- Use hard-wired phones instead of cell or cordless phones.
- Put devices in airplane mode, which suspends EMF transmission in the device, disabling Bluetooth, GPS, phone calls, and WiFi.

"All educational facilities must have healthy indoor air quality, be smoke-free, be safe from environmental and chemical hazards, and be safe from hazardous electromagnetic fields."
— National Education Association

"Students and/or their parents/guardians, education employees, and the public should be notified of actual and potential hazards."
— National Education Association
2013-2014, C-19

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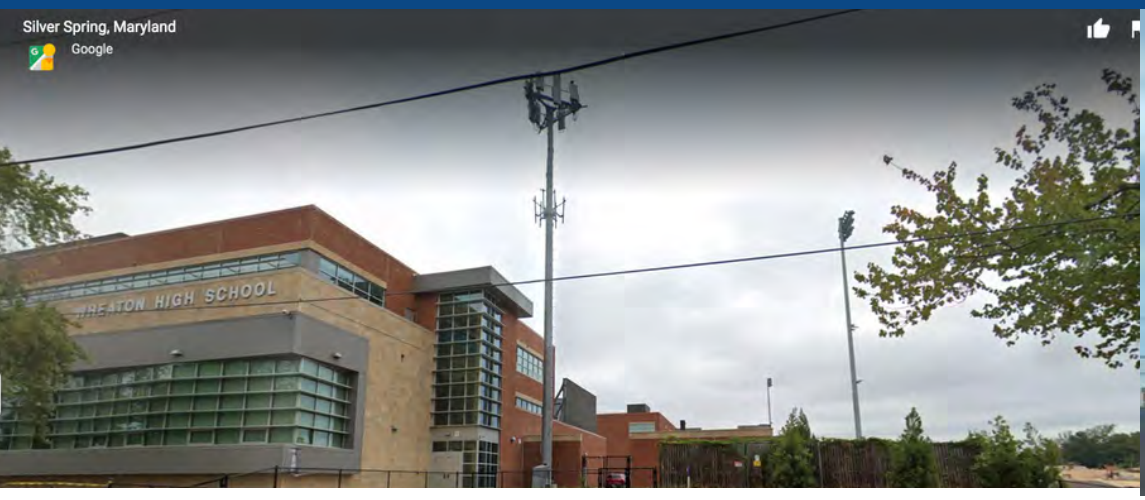
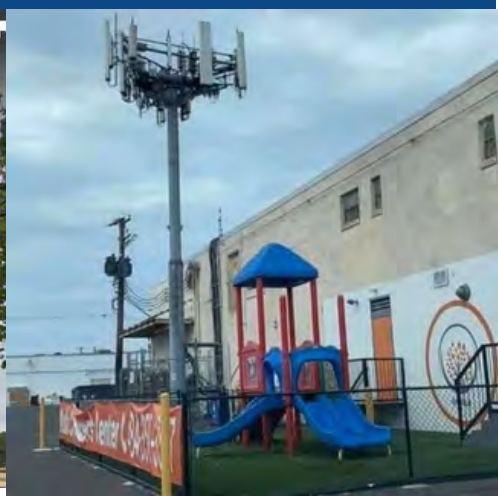
ENVIRONMENTAL HEALTH TRUST

PARENT TEACHER ASSOCIATIONS

OPPOSE CELL TOWERS





CONEJO PTA WANTS CELL TOWER MOVED
Op-ed in Thousand Oaks Acorn Journal

The California PTA advocates on behalf of children and families. They advocate against electromagnetic field radiation your schools.

The Conejo PTA urges the use of the precautionary principle in making decisions regarding public health this means if something cannot be proven to be safe it is best to avoid exposure. Most people don't realize that the 1996 FCC state standards for safe levels of omission was actually based on a level set by the American national standards institute in 1982. Well this standard has not been changed in 30 years it has usurped all local authority."

"For this reason, Conejo Council PTA made up of 9000 parents and teachers has decided to take action. We're calling on our local leaders to put in place policies that would ensure parents are notified when cell towers are propose near schools and then encourage a buffer zone around schools."

-Kim Huber, legislative chair of the Conejo Council PTA.

NEW YORK STATE PTA
-Adopted TWO Resolutions 2014

"CELLULAR PHONE TOWERS – 2014 (R-'07, R-'00); Resolved that the New York State Congress of Parents and Teachers, Inc. support legislation that would encourage local communities, including parents and school officials, to regulate the placement of cell towers and cell tower antennas particularly in schools and areas where children congregate,

and be it further Resolved that the New York State PTA support continued research into the long-term effects of radio frequency and microwave frequencies on humans especially as they apply to children, and be it further Resolved that the New York State PTA seek to educate parents and school officials as to the current debate over the placement of cell towers and antennas."

NEELSVILLE MIDDLE SCHOOL PTA (MD)

- Voted to oppose proposed cell tower.
- Hosted parent information session with both the cell tower company and Environmental Health Trust.

HILLSMERE ELEMENTARY SCHOOL PTA (MD)

- Sent letters to the school board in opposition to cell towers near the school.

BRIARLAKE ELEMENTARY (GA)

- Voted to oppose cell tower after board approved towers on schools.

PACIFIC GROVE (CA) PTAs

- Forest Grove Elementary Pacific Grove Middle School and Pacific Grove High School PTAs sent a letter to City Council opposing a high school cell tower.

PARENT TEACHER ASSOCIATIONS

OPPOSE CELL TOWERS

Exhibit A

August 6, 2018

Pacific Grove City Council
City Hall
300 Forest Ave.
Pacific Grove, CA 93950

Dear members of Pacific Grove City Council,

I am writing you on behalf of Pacific Grove High School PTA in regard to the Pacific Grove Planning Commission's vote on July 26, 2018, which approved a request by Verizon Wireless to install and maintain a cell tower adjacent to Pacific Grove High School (PGHS). For the reasons described below, the Pacific Grove High School PTA **is strongly opposed** to the location of the Verizon cell tower and is requesting that the City Council consider and support the appeal that is being filed by a group of concerned parents who live in Pacific Grove and send their children to PG schools.

The installment of a cell tower adjacent to PGHS poses significant potential health dangers to both students and staff at PGHS. While some argue that radiation emitted from a cell tower is not a health danger, data from many studies indicate the opposite. Research shows that children and pregnant women are the most vulnerable – two demographics most likely to be on PGHS school grounds on a regular basis. The actual placement of the cell tower– near the back of PGHS and very close to Forest Grove Elementary School- only increases the concerns of the frequency in exposure.

Cell towers also pose a risk to students due to fire hazard. Many cell towers throughout the United States have caught fire and collapsed, posing a significant safety concern, especially in an area with young students walking to and from school every day.

The mission of all PTAs nationwide is to make every child's potential a reality by engaging and empowering families and communities to advocate for all children. Our local PTA is very active in expressing our support for or opposition to issues dealing with the health, safety, education, or general well-being of children and youth in our community.

The members of the Pacific Grove High School PTA strongly urge you to please reconsider the Pacific Grove Planning Commission's previous vote and rescind approval for the Verizon cell tower at Pacific Grove High School.

Sincerely,

Julie Kavanaugh
President, Pacific Grove High School PTA

CELL TOWER RF RADIATION AND CANCER

International Agency for Research on Cancer

World Health Organization

PRESS RELEASE
N° 208

31 May 2011

IARC CLASSIFIES RADIOFREQUENCY ELECTROMAGNETIC FIELDS AS POSSIBLY CARCINOGENIC TO HUMANS

Lyon, France, May 31, 2011 – The WHO/International Agency for Research on Cancer (IARC) has classified radiofrequency electromagnetic fields as possibly carcinogenic to humans (Group 2B), based on an increased risk for glioma, a malignant type of brain cancer[1], associated with wireless phone use.

The World Health Organization International Agency for Research on Cancer Classified Radiofrequency Radiation as a "Possible" Carcinogen in 2011

In 2011, radiofrequency electromagnetic fields (RF-EMF) were classified as a Group 2B possible carcinogen by the World Health Organization's International Agency for Research on Cancer (WHO/IARC).

The WHO/IARC scientists clarified that this determination was for RF-EMF from any source be it cell phones, wireless devices, cell towers or any other type of wireless equipment.

Since 2011, the published peer-reviewed scientific evidence associating RF-EMF (also known as RF-EMR and RFR) to cancer and other adverse effects has significantly increased.

A large-scale animal study published in Environmental Research found rats exposed to RF levels comparable to cell tower emissions had elevated cancers, the very same cancers also found in the US National Toxicology Program animal study of cell phone level RF that found "clear evidence" of cancer in carefully controlled conditions (Falcioni 2018).

In 2019, the WHO/IARC advisory committee recommended that radiofrequency radiation be re-evaluated as a "high" priority in light of the new research. The date of the re-evaluation has not been set.

Currently, several scientists conclude that the weight of currently available, peer-reviewed evidence supports the conclusion that radiofrequency radiation is a proven human carcinogen (Hardell and Carlberg 2017, Peleg et al. 2022, Miller et al. 2018).

SCIENTIFIC RESEARCH STUDIES

European Parliament requested a research report "**Health Impact of 5G**" which was released in July 2021 and concluded that commonly used RFR frequencies (450 to 6000 MHz) are probably carcinogenic for humans and clearly affect male fertility with possible adverse effects on the development of embryos, fetuses and newborns.

A review entitled "**Evidence for a health risk by RF on humans living around mobile phone base stations: From radiofrequency sickness to cancer**" reviewed the existing scientific literature and found radiofrequency sickness, cancer and changes in biochemical parameters (**Balmori 2022**).

A **study** published in Electromagnetic Biology and Medicine found changes in blood considered biomarkers predictive of cancer in people living closer to cell antenna arrays (**Zothansiama 2017**).

A **study** published in the International Journal of Environmental Research and Public Health found higher exposure to cell network arrays linked to higher mortality from all cancer and specifically lung and breast cancer (**Rodrigues 2021**).

A 10-year **study** published in Science of the Total Environment on cell phone network antennas by the local Municipal Health Department and several universities in Brazil found a clearly elevated relative risk of cancer mortality at residential distances of 500 meters or less from cell phone towers (**Dode 2011**).

A **study** commissioned by the Government of Styria, Austria found a significant cancer incidence in the area around the RF transmitter as well as significant exposure-effect relationships between radiofrequency radiation exposure and the incidence of breast cancers and brain tumors (**Oberfeld 2008**).

A **review** published in Experimental Oncology found "alarming epidemiological and experimental data on possible carcinogenic effects of long term exposure to low intensity microwave (MW) radiation." A year of operation of a powerful base transmitting station for mobile communication reportedly resulted in a dramatic increase of cancer incidence among the population living nearby (**Yakymenko 2011**).

WORLDWIDE POLICY

5G & CELL TOWERS

EUROPE

- Resolutions to halt 5G in numerous European cities including Trafford, UK, Lille, France, Ormidia, Cyprus, Councils in Ireland and more.

ITALY

- 600 municipalities have passed resolution to halt 5G.

UNITED STATES

- Los Angeles CA Public Schools: RFR Limit 10,000x less than FCC.
- Resolutions to halt 5G passed in Hawaii County HI, Farragut TN, Keene NH & Easton CT.
- Numerous cities restrict cell antennas near homes including: Los Altos, Petaluma, Mill Valley, Malibu and San Diego County CA, Bedford NH and more.
- New Hampshire 5G Commission's 15 Recommendations include increasing transparency, reduce public exposure, research health effects and protect wildlife and trees.
- Oregon investigating health effects of wireless.
- Palo Alto, Los Angeles LA Schools Greenbelt MD, Bar Harbor ME; No school cell towers

CHILE

- Cell antennas prohibited in “sensitive areas" - kindergartens, hospitals and nursing homes.

BANGLADESH

- No cell towers on homes, schools, colleges, playing fields, populated areas and heritage areas.

FRANCE

- 60 mayors/officials petition to halt 5G.
- Federal health agency investigating 5G
- 5G antenna RFR is measured.

SWITZERLAND

- Parliament refused to weaken radio frequency radiation (RFR) limits after 5G Report.

NETHERLANDS

- Health Council recommends against 26 GHz for 5G due to lack of safety data.

RUSSIA

- No cell towers near schools.

ISRAEL

- Cell tower setback 100m from schools/ homes.

CANADA

- City of Toronto "Prudent Avoidance Policy" for Cell Towers.

BULGARIA

- Mezdra and Balchik have banned 5G.

GREECE

- The installation of cell towers at the premises of schools, kindergartens, hospitals or eldercare facilities is prohibited.

CYPRUS

- Cyprus National Committee on Environment and Child Health 5G Position Paper calls for 5G free zones.

AUSTRALIA

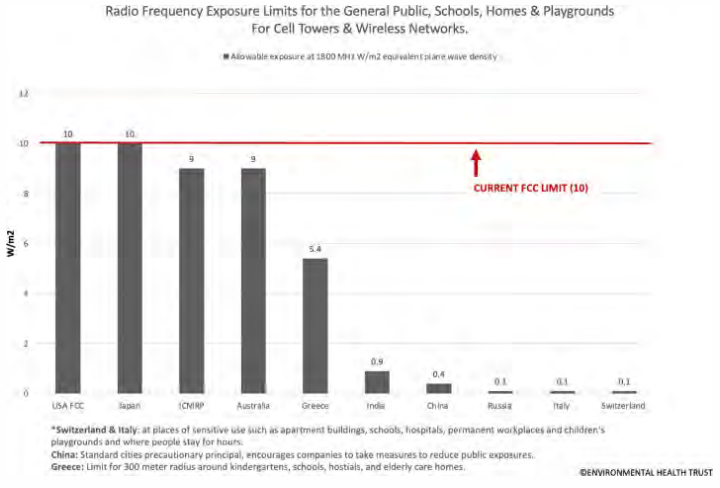
- New South Wales Dept. of Education policy objects to towers on/near schools.

LITHUANIA

- Cell antennas prohibited on kindergartens and hospitals.

INDIA

- RFR limit tightened to 1/10 of CNIRP limits after Inter-Ministerial Report on impacts to wildlife.
- Mumbai, Zilla Parishad & Karnataka: Cell towers prohibited/removed near schools, colleges, orphanages and old age homes.
- Brihanmumbai Municipal: Cell towers banned at parks and playgrounds.
- State of Rajasthan: Supreme Court of India upheld removal of “hazardous to life" cell towers from vicinity of schools, hospitals/playgrounds.



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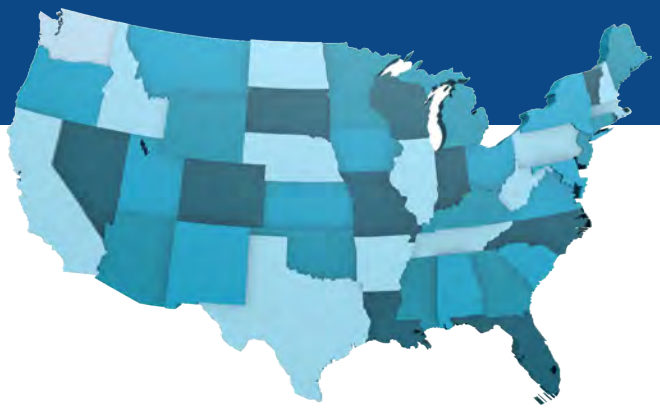
ENVIRONMENTAL HEALTH TRUST

UNITED STATES OF AMERICA

5G & CELL TOWERS



CALIFORNIA

Numerous CA cities restrict cell antennas near homes with setbacks and strict ordinances including: Los Altos, Petaluma, Mill Valley, Malibu, Santa Barbara, Nevada City, Suisin, Calabasas, San Clemente, Westlake, Sonoma, Sebastopol, San Rafael, Ross Valley, Encinitas, Fairfax, Palo Alto, Walnut City and San Diego County.

As an example of CA ordinances, the Los Altos City ordinance:

- prohibits installation of small cells on public utility easements in residential neighborhoods
- 500 foot setbacks for small cells for multi-family residences in commercial districts
- 500 ft separation from schools
- 1500 ft separation between nodes

San Diego County, California

- "SCWs shall not be located within 1,000 feet of schools, child care centers, hospitals, or churches."

CONNECTICUT

- Easton CN City Council passed a 5G cease and desist resolution
- Warren, Connecticut Policy defines "adequate coverage" and "adequate capacity." and was designed "to locate towers and/or antennas in a manner which protects property values, as well as the general safety, health, welfare and quality of life of the citizens." Coverage is considered to be "adequate" within that area surrounding a Base Station where the predicted or measured median field strength of the transmitted signal is such that the majority of the time, transceivers properly installed and operated will be able to communicate with the base station.

FLORIDA

- Coconut Creek FL Commission adopted a Resolution on 5G and radiofrequency radiation.
- Hallandale Beach FL Resolution urges the federal government to initiate independent health studies on 5G.
- Lavallette FL Resolution 2021-58: Applicant shall obtain certification from the Federal Aviation Administration and the United States Dept. of Defense demonstrating that the installation does not emit RF frequencies which may interfere with avionics of any approaching civil or military aircraft." The City also requires the applicant to provide RF meters used by their technicians and train City employees. Verizon cannot install more than a total of 20 "small cell" nodes throughout the Borough to support 5G.

HAWAI'I

- Hawai'i County Council passed a Resolution to halt 5G

IILLINOIS

- Oak Brook IL Resolution calls for local control re small cels.

INDIANA

Carmel City IN Council resolution asks state lawmakers, FCC and Congress to limit 5G until health effects fully understood.

MASSACHUSETTS

Randolph MA 500 ft setback. Yearly RFR measurements. Lunenburg and Great Barrington MA 500 ft setback Stockbridge MA prohibits a tower from being built 1000 feet from a school, park or athletic field and 600 ft from residence.

NEW JERSEY

- Little Silver, NJ Carriers should provide notice to property owners within 500 feet of proposed facility.

NEW YORK

- Scarsdale NY: 500 foot setbacks to homes preferred.
- Copake NY: Pre/post testing by RF engineer. No repeater closer than 200 ft to dwelling. No tower closer than 1500 ft to residence/church.
- Community Boards issuing Moratoriums on 5G poles

NEW HAMPSHIRE

- Proposed State Bill - 1640 ft setbacks.
- Keene NH Resolution to halt 5G
- Bedford NH 750 ft. setback

OHIO

- Mason OH Zoning Ordinance No small cells in residential areas or within 100 feet of residential prop; 2000 feet apart (unless colocated); equipment should be underground or wholly contained.

OKLAHOMA

- Sallisaw OK 1,500 feet setback

TENNESSEE

- Farragut City Resolution to halt 5G

WISCONSIN

- Greendale WI passed Resolution R2018-20 referring to the FCC's actions stripping local authority as "an unprecedented attack on local control."

PUBLISHED RESEARCH STUDIES

OUTDOOR LEVELS OF RF ARE INCREASING DUE TO THE DENSIFICATION OF WIRELESS NETWORKS

An **article** published in *The Lancet Planetary Health* documents how RF exposures are increasing and so is the scientific research linking exposure to adverse biological effects. "It is plausibly the most rapidly increasing anthropogenic environmental exposure since the mid-20th century..."

A **2021 report** by the French government on 5G analyzed more than 3,000 measurements and found that while RF levels had *not yet* significantly increased, this was due to the lack of 5G traffic. Additional study specific to 5G in the 3500 MHz band with artificially generated traffic concluded that, "initial results suggest an eventual increase of about 20% in overall exposure."

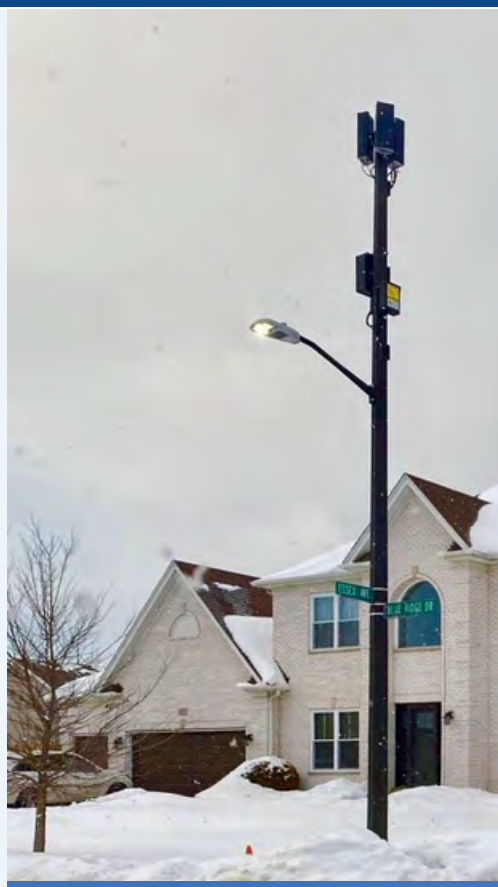
A **2018 multi-country study** published in *Environment International* measured RF in several countries and found cell tower/base station radiation to be the dominant contributor to RF exposure in most outdoor areas. Urban areas had higher RF.

A **study** measuring RF exposure in the European cities of Basel, Ghent and Brussels found the total RF exposure levels in outdoor locations had increased up to 57.1% in one year (April 2011 to March 2012) and most notably due to mobile phone base stations.

A **2018 study** published in *Oncology Letters* documented "unnecessarily high" RF levels in several locations in Sweden and concludes that "using high-power levels causes an excess health risk to many people."

A **2017 Swedish** study of Royal Castle, Supreme Court, three major squares and the Swedish Parliament found that despite the architecturally camouflaged RF-emitting antennas, the passive exposure was higher than RF levels associated with non-thermal biological effects. The researchers noted that the heaviest RF load falls on people working or living near hotspots.

A **2016 study** at Stockholm Central Railway Station in Sweden documented higher RF levels in areas where base station antennas were located closest to people. Importantly, the RF from the downlink of UMTS, LTE, GSM base station antennas contributed to most of the radiation levels.



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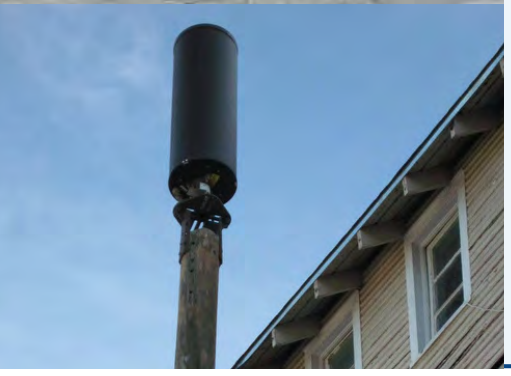
APARTMENTS & CONDO BUILDINGS
INCREASED RF RADIATION FROM CELL ANTENNAS



The study "**Radiofrequency radiation from nearby mobile phone base stations-a case comparison of one low and one high exposure apartment**" published in *Oncology Letters* by **Koppel et al. (2019)** measured 2 apartments and found that the apartment with high RF levels had outdoor areas as close as 6 meters (about 19.6 feet) from transmitting base station cell antennas. In contrast, the apartment with low RF exposure had cell antennas at 40 meters (about 131 feet) away from the balcony.

Furthermore, the researchers also found that both high- and low-RF apartments had good mobile phone reception, and they concluded,"therefore, installation of base stations to risky places cannot be justified using the good reception requirement argument."

A measurement study by **Baltrėnas et al. (2012)** published in *Journal of Environmental Engineering and Landscape Management* investigated RF power density levels from cell phone antennas located 35 meters away from a 10-story apartment building. The transmitting antennas were approximately at the same height as the 6th floor of the building. The researchers found the highest RF levels at floors 5, 6 and 7. The RF at the 6th floor balcony was three times higher than the 3rd floor balcony. The RF power density at the 6th floor was about 15 times the RF measured at the first floor.

A **case report by Hardell et al. (2017)** of RF levels in an apartment in close proximity to rooftop cellular network antennas used an exposimeter to measure levels of different types of RF in the apartment and balconies including TV, FM, TETRA emergency services, 2G GSM, 3G UMTS, 4G LTE, DECT cordless, Wi-Fi 2.4 GHz and 5 GHz and WiMAX. The closest transmitting antennas were 6 meters away from the balcony. The researchers found 97.9% of the mean RF radiation was caused by downlink from the 2G, 3G and 4G base stations. (Downlink means frequencies emitted "down" from the base station cellular antennas.) The researchers found that if the base station RF emissions were excluded, the RF radiation in the children's bedrooms was reduced approximately 99%.

The researchers conclude, "due to the current high RF radiation, the apartment is not suitable for long-term living, particularly for children who may be more sensitive than adults."

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ENVIRONMENTAL HEALTH TRUST

INCREASED EXPOSURE FROM 5G/4G "SMALL" CELL ANTENNAS LOCATED CLOSE TO PEOPLE

A study entitled "**Very high radiofrequency radiation at Skeppsbron in Stockholm, Sweden from mobile phone base station antennas positioned close to pedestrians' heads**" published in *Environmental Research* by Koppel et al. (2022) created an RF heat map of RF measurements, finding that the highest RF measurements were in areas of close proximity to the base station antennas. The researchers concluded with recommendations to reduce close proximity placements such as positioning antennas "as far as possible from the general public" like in high-elevation locations or more remote areas.

A study entitled "**Measurements of radiofrequency electromagnetic fields, including 5G, in the city of Columbia, South Carolina, USA**" published in the *World Academy of Sciences* Journal found the highest RF levels in areas where the cell phone base station antennas were placed on top of utility poles, street lamps, traffic lights or other posts near to the street. The scientists compared their **2022 findings** to an earlier **2019 published review** on the mean outdoor exposure level of European cities and they found the South Carolina measurements to be higher.

The researchers concluded that the highest exposure areas were due to two reasons: cell phone base antennas on top of high-rise buildings provide "good cell coverage reaching far away, but creating elevated exposure to the radiofrequency electromagnetic fields at the immediate vicinity; and cell phone base station antennas installed on top of utility poles have placed the radiation source closer to humans walking on street level."

WORLD ACADEMY OF SCIENCES JOURNAL 4: 23, 2022

Measurements of radiofrequency electromagnetic fields, including 5G, in the city of Columbia, SC, USA

TARMO KOPPEL[1,3] and LENNART HARDELL[2]

Figure 7. Gervais Street: Cell phone base station antenna placed close to street level and causing high exposure to pedestrians and nearby café visitors (exposure scenario illustration). The antenna appears camouflaged and seemingly part of a utility pole. The measurer only discovered the antenna due to the high radiofrequency levels in the vicinity.

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ENVIRONMENTAL HEALTH TRUST

HEALTH SYMPTOMS REPORTED BY PEOPLE LIVING CLOSE TO CELL ANTENNAS

Image: Figure 1: Top floor apartment adjacent to base stations. Nilsson M, Hardell L. (2023) Development of the Microwave Syndrome in Two Men Shortly after Installation of 5G on the Roof above their Office. Ann Clin Case Rep

RESEARCH ON ANTENNAS CLOSE TO HOMES, SCHOOL AND WORK

Surveys of people living near cell tower antennas in **France**, **Spain**, **Iraq**, **India**, **Germany**, **Egypt**, **Poland** have found significantly higher reports of health issues including sleep issues, fatigue and headaches (See **Santini et al. 2003**, **López 2021**, **Alazawi 2011**, **Pachuau and Pachuaua 2016**, **Eger et al. 2004**, **Abdel-Rassoul et al. 2007**, **Bortkiewicz et al., 2004**).

A **study** published in *American Journal of Men's Health* linked higher cell tower RFR exposures to delayed fine and gross motor skills and to deficits in spatial working memory and attention in school adolescents (**Meo 2018**).

A **study** published in *Environmental Research and Public Health* found higher exposures linked to higher risk of type 2 diabetes (**Meo 2015**).

A study following people for 6 years linked increased cell phone and cell phone tower antenna exposure to altered levels of hormones including cortisol, thyroid, prolactin and testosterone (**Eskander et al. 2021**).

A **study** that followed people in a German town after a cell tower was erected found stress hormones adrenaline and noradrenaline significantly increased over the first 6 months after the antenna activation and decreased dopamine and PEA levels after 18 months (**Buchner 2011**).

Two published case report document illness that developed after 5G antennas were installed. In **Hardell and Nilsson 2023,** a couple developed microwave syndrome symptoms (e.g., neurological symptoms, tinnitus, fatigue, insomnia, emotional distress, skin disorders, and blood pressure variability) after a 5G base station was installed on the roof above their apartment.

Similarly, in **"Development of the Microwave Syndrome in Two Men Shortly after Installation of 5G on the Roof above their Office**" two men developed symptoms after 5G antennas were activated on the roof of their workplace. The symptoms disappeared in both men within a couple of weeks (case 1) or immediately (case 2) after leaving the office.

PUBLISHED RESEARCH ON 5G

New York City Jumbo 5G poles with 5 tiers to house transmitting antennas from numerous carriers.

New York City "small cell" antennas in front of living room window.

Scientists state that 5G's higher frequencies cannot be assumed safe.

5G systems are using low band frequencies well associated with harmful effects **(ICBE-EMF 2022, European Parliament 2021, Panagopoulos et al. 2021)**. However 5G networks are *also using higher frequencies* such as 3.5 GHz and into the mmWave range with 24 GHz and higher.

Contrary to claims that the 5G's higher frequencies simply "bounce" off the skin, researchers have documented that the coiled portion of the skin's sweat duct can be regarded as a helical antenna in the sub-THz band and the skin, our largest organ, can intensely absorb the higher 5G frequencies **(Feldman and Ben Ishai 2017).**

Reviews of 5G health effects caution that the expected real-world impact would be far more serious due to the complex waveforms and other combinations with other toxic stimuli in the environment **(Kostoff et al 2020, Russell, 2018, Belyaev 2019, McCredden et al 2023).**

Researchers will often experiment with zebrafish, rodents and fruit flies to gain data on potential health effects to humans. An Oregon State University study on zebrafish exposed to 3.5 GHz **(Dasgupta et al. 2022)** found "significant abnormal responses in RFR-exposed fish" which "suggest potential long-term behavioral effects. Yang et al 2022 found 3.5 GHZ induced oxidative stress in guinea pigs.

A study on 3.5 GHz exposure to both diabetic and healthy rats (**Bektas et al 2022)** found an increase in degenerated neurons in the hippocampus of the brains, changes in oxidative stress parameters and changes in the energy metabolism and appetite of both healthy and diabetic rats. The researchers conclude that, "5G may not be innocent in terms of its biological effects, especially in the presence of diabetes."

PUBLISHED RESEARCH ON 5G

5G's higher frequencies will be combined with the lower frequencies from current networks already present in the environment.

Studies on rats have found exposure to both 1.5 and 4.3 GHz microwaves induced: cognitive impairment and hippocampal tissue damage **(Zhu et al 2921)**; impairments in spatial learning and memory, *with the combined simultaneous exposures* resulting in the most most severe effects **(Wang et al 2022)**; and immune suppressive responses **(Zhao 2022)**.

Long-term exposure to 2.856 and 9.375 GHz microwaves impaired learning and memory abilities as well as EEG disturbance, structural damage to the hippocampus, and differential expression of hippocampal tissue and serum exosomes **Wang et al. 2023)**.

Studies on fruit flies exposed to 3.5 GHz have found the exposure led to increases in oxidative stress, changes in the microbial community **(Wang et al 2022)** and alterations of the expression of several types of genes (Wang et al 2021).

A review by **Russell 2018** found evidence for millimeter wave effects to the skin, eyes, immune system, gene expression, and bacterial antibiotic resistance.

Recent experimental research on high-band 5G impacts to animal fertility found that 27 GHz damages sperm quality in mussels **(Pecoraro et al 2023).**

Yet the US government is not funding any research on biological effects of frequencies at 3.5 GHz or above 6 GHz to humans.

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5G, CELL TOWERS AND WIRELESS

LEGAL & LIABILITY ISSUES

When a new cell tower is proposed, the first question to ask is: "Do you have insurance for damages from long-term exposure to the radiofrequency radiation (RFR)?"

Usually the answer is "No." Why? Insurance companies rank the risk as "HIGH."

5G and Cell Towers Are an Uninsurable Risk

- Insurers rank wireless, cell tower, and 5G RFR non-ionizing electromagnetic field (EMF) radiation as a “high” risk, comparing the issue to lead and asbestos.
- Most insurance plans have “electromagnetic field exclusions” and do not insure for long-term RFR damages.
- Additionally, some insurance plans will not provide a defense for any supervision instruction or recommendation given *"or which should have been given"* in connection to EMFs.
- Wireless RFR and non-ionizing electromagnetic radiation are defined as a type of “pollution” by wireless companies themselves.
- U.S. mobile operators have been unable to get insurance to cover liabilities related to damages from long-term RFR exposure.
- Wireless companies warn their shareholders of RFR risk but do not warn users of their products, nor do the companies warn the people exposed to emissions from their infrastructure.

This PDF is hyperlinked. For more on legal liability issues go to ehtrust.org

ENVIRONMENTAL HEALTH TRUST

Cell Tower Companies Warn Shareholders of Risk From Cell Tower Radiation

Why Don't They Warn Families Living Near Cell Towers?

Verizon 10-K Report

"Our wireless business also faces personal injury and wrongful death lawsuits relating to alleged health effects of wireless phones or radio frequency transmitters. We may incur significant expenses in defending these lawsuits. In addition, we may be required to pay significant awards or settlements."

Crown Castle 10-K Report

"We cannot guarantee that claims relating to radio frequency emissions will not arise in the future or that the results of such studies will not be adverse to us...If a connection between radio frequency emissions and possible negative health effects were established, our operations, costs, or revenues may be materially and adversely affected. We currently do not maintain any significant insurance with respect to these matters."

AT&T 10-K Report

"In the wireless area, we also face current and potential litigation relating to alleged adverse health effects on customers or employees who use such technologies including, for example, wireless devices. We may incur significant expenses defending such suits or government charges and may be required to pay amounts or otherwise change our operations in ways that could materially adversely affect our operations or financial results."

T- MOBILE 10-K Report

"Our business could be adversely affected by findings of product liability for health or safety risks from wireless devices and transmission equipment, as well as by changes to regulations or radio frequency emission standards."

This PDF is hyperlinked. For more on legal liability issues go to ehtrust.org

Cell Tower Companies Warn Shareholders of Risk From Cell Tower Radiation

Why Don't They Warn Families Living Near Cell Towers?

American Tower 10-K

"If a scientific study or court decision resulted in a finding that radio frequency emissions pose health risks to consumers, it could negatively impact our tenants and the market for wireless services, which could materially and adversely affect our business, results of operations or financial condition. We do not maintain any significant insurance with respect to these matters."

Nokia 10-K

"Although our products are designed to meet all relevant safety standards and other recommendations and regulatory requirements globally, we cannot guarantee we will not become subject to product liability claims or be held liable for such claims, which could have a material adverse effect on us."

Qualcomm 10-K

"If wireless handsets pose health and safety risks, we may be subject to new regulations, and demand for our products and those of our licensees and customers may decrease."

Ericsson Annual Report

"Any perceived risk or new scientific findings of adverse health effects from mobile communication devices and equipment could adversely affect us through a reduction in sales or through liability claims."

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T-Mobile Warns of the Risk of 5G and Lawsuits

The Data on Risk Could Change, Impacting Cash Flow

T-Mobile advertises to the public about going "live" but omits the warnings they give to shareholders regarding 5G, regulatory changes and risk perception.

T-Mobile

T-Mobile 10-K Report 2/2023

"Negative public perception of, and regulations regarding, the perceived health risks relating to 5G networks could undermine market acceptance of our 5G services" (page 13)

"We, along with equipment manufacturers and other carriers, are subject to current and potential future lawsuits **alleging adverse health effects arising from the use of wireless handsets or from wireless transmission equipment such as cell towers."**

"In addition, **the FCC has from time to time gathered data regarding wireless device emissions, and its assessment of the risks associated with using wireless devices may evolve based on its findings.** Any of these allegations or changes in risk assessments could result in customers purchasing fewer devices and wireless services, could result in significant legal and regulatory liability, and could have a material adverse effect on our business, reputation, financial condition, cash flows and operating results." (T- Mobile 10-K Report page 21)


Mobile Telecommunications and Health

Review of the Current Scientific Research in view of Precautionary Health Protection

A 2000 Ecolog Institute Report commissioned by T-Mobile and DeTeMobil Deutsche Telekom MobilNet recommended an RF exposure limit 1000x lower than the FCC's current power density limit after reviewing the research on biological effects, including impacts to the immune system, central nervous system, hormones, cancer, neurotransmitters and fertility.

This PDF is hyperlinked. For more on legal liability issues go to ehtrust.org

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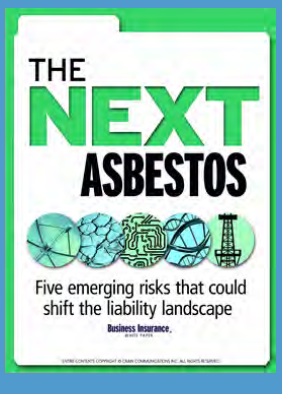
5G, CELL TOWERS AND WIRELESS

LEGAL & LIABILITY ISSUES SHAREHOLDER WARNINGS



"Some research has shown biological effects from lower -level "non thermal" exposure and people exposed at lower levels have reported headaches, dizziness, nausea, mood disorders, mental slowing and memory loss."
Business Insurance White Paper, The Next Asbestos: Five Emerging Risks That Could Shift the Liability Landscape

Insurance Authorities Rate 5G as "High Risk."
5G mobile networks are classified as a "high," "off-the-leash" risk. "Existing concerns regarding potential negative health effects from electromagnetic fields (EMF) are only likely to increase. An uptick in liability claims could be a potential long-term consequence" and "as the biological effects of EMF in general and 5G in particular are still being debated, potential claims for health impairments may come with a long latency." — Swiss Re Institute (2019)

Insurance Companies Have Electromagnetic Field Exclusions As the Industry Standard
Electromagnetic field exclusions" are clear and common in most insurance companies. It is applied as a market standard. This exclusion serves to exclude cover for illnesses caused by long-term EMF (non-ionizing radiation) exposure." — Complete Markets

"Exclusions: This insurance does not apply to: Bodily injury, personal injury, advertising injury, or property damage arising directly or indirectly out of, resulting from, caused or contributed to by electromagnetic radiation, provided that such loss, cost or expense results from or is contributed to by the hazardous properties of electromagnetic radiation.
— Portland Oregon Public School Insurance (page 30)

Insurance Plans Not Only Exclude EMF Damages, But Some Even Exclude Defending Decision Makers From Actions

"This policy does not apply to and we will not provide a defense for: a. bodily injury... arising out of ... exposure to or contact with electromagnetic radiation... b. costs of abatement .. of EMF" or c. any supervision, instruction, recommendation, warning or advice given or which should have been given in connection with a or b. above."- City of Ann Arbor Michigan Insurance Policy page 14.

Wireless Companies Rank EMF as a Risk with High Impact
"Electro-magnetic signals emitted by mobile devices and base stations may be found to pose health risks, with potential impacts including: changes to national legislation, a reduction in mobile phone usage or litigation." — Vodaphone 2017 Report ranks EMF as a "Principal Risk with "High" impact.

Wireless Companies Warn Shareholder About Risk But Not People Living Near Their Wireless Infrastructure

Crown Castle says:
"We cannot guarantee that claims relating to radio frequency emissions will not arise in the future or that the results of such studies will not be adverse to us...If a connection between radio frequency emissions and possible negative health effects were established, our operations, costs, or revenues may be materially and adversely affected. We currently do not maintain any significant insurance with respect to these matters."

Wireless Companies Define Pollution in Their Own Policies as Including EMFs, Microwaves and Non-ionizing Radiation.

Verizons Total Mobile Protection Plan says: "Pollution" is defined as "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 non-ionizing radiation and/or waste."

ENVIRONMENTAL HEALTH TRUST

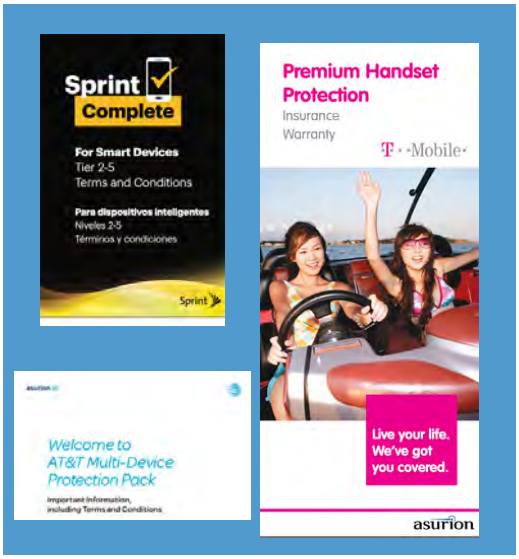
Verizon Total Mobile Protection Plan Defines Non-ionizing Radiation as "Pollution"

16. Pollution

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 non-ionizing radiation and/or waste. Waste includes materials to be recycled, reconditioned or reclaimed.

AT&T, Sprint and T -Mobile also have similar "pollution" definitions and they refuse to cover damages.

Click on image to view the policy.



Insurance Companies Exclude EMF As Industry Standard

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ELECTROMAGNETIC RADIATION EXCLUSION

This endorsement modifies insurance provided under the following:

GENERAL LIABILITY COVERAGE PART
PUBLIC RISK GENERAL LIABILITY RETAINED LIMIT COVERAGE FORM
LAW ENFORCEMENT COVERAGE PART
LAW ENFORCEMENT LIABILITY RETAINED LIMIT COVERAGE FORM
PUBLIC OFFICIALS COVERAGE PART
PUBLIC OFFICIALS LIABILITY RETAINED LIMIT COVERAGE FORM
EMPLOYMENT PRACTICES LIABILITY COVERAGE PART
EMPLOYMENT PRACTICES LIABILITY RETAINED LIMIT COVERAGE FORM

The following **Exclusion** is added:

This policy does not apply to and we will not provide a defense for:

a. "Bodily injury," "property damage", "personal and advertising injury", "employee benefits wrongful acts", "personal injury", "law enforcement wrongful acts", "public officiels wrongful acts", "educator's legel wrongful acts", or "employment practices wrongful acts" arising out of, or which result in, the actual, alleged, threatened, perceived, latent, sudden and accidental or incidental exposure to or contact with electromegnetic radiation in any form, from any source.

b. The costs of abatement or mitigation of:

(1) Electromagnetic radiation; or

(2) Exposure to electromagnetic rediation.

c. Any supervision, instruction, recommendation, waming or advice given or which should have been given in connection with **a.** or **b.** above.

Electromagnetic radiation includes but is not limited to, magnetic energy, waves, fields or forces generated, produced, transmitted or maintained by the charges, currents, frequencies, energy or forces of electricity that is generated, flowing or otherwise transmitted through or via the medium, methods and equipment designed to generate, produce, distribute, trensport or transmit the electrical charges, currents, frequencies, energy or forces.

ENVIRONMENTAL HEALTH TRUST

January 10, 2024

Suzanne Harman
Planning & Economic Development Department
100 Santa Rosa Avenue Rm 300
Santa Rosa CA 95404

You are about to make a decision about the placement of a cell tower near senior housing and I hope you base this decision on **facts** and not industry spin.

First you need to ask yourself a couple of questions. Why would the corporate telecom industry ever tell you their product is harmful? How would you know facts vs spin?

The fact is; this infrastructure is dangerous!

We have a long history in the United States of industry doing harm and hiding behind captured public agencies, the captured corporate media and industry manipulated science. Most of the information that public officials and the public at large think is true, is actually PR induced industry spin manipulated by an industry with very deep pockets.

Telecom representatives will give you every reason in the world why they need this tower. But they'll never give you all the facts!

They will state that they need it for First Responders, or because of a gap in service, or they may say they want to solve the digital divide, or they will come to you stating they need this for "capacity" issues, which by the way is not covered under the 1996 Telecom Act, the black letter laws passed by congress or the 2012 Spectrum Act. On top of this, information submitted is often overtly technical and not well understood by lay people.

They will never provide you with real meaningful information or documentation, or the necessary supported data and information that is required to support any legal need. And legal experts who represent communities like Santa Rosa with telecommunications law have noted that the applicants seeking to build wireless facilities are known to: *(a) submit patently false or materially misleading information and documentation to local zoning boards in support of applications seeking approvals for desired wireless facilities, (b) install wireless facilities without obtaining, or even seeking to obtain, any local zoning approvals before installing them, (c) complete stealth installations under cover of darkness, or at times when the owners of nearby properties would not be home or asleep,*

*and (d) lie to local property owners a*s to their intent and/or the placement and/or size of the facilities they intend to construct.[1]

Are you a Sucker for Manufactured Doubt?

Industry is betting that you are and that their psychological PR spin, or Manufactured Doubt, will make you feel well informed, and that you will use their manipulated science as a badge of scholarly status and that you will minimize and diminish everything else that is said as a stamp of ignorance or intellectual inferiority.

And the industry knows they only have to make you doubtful because in the human mind, that means the science isn't settled. And that's a win for the industry.

In a letter to the Santa Rosa Planning Department Professional engineer, David Witkowski, makes this statement:

"One of the ways the FCC's guidelines create protection is by mandating a 98% safety margin between the highest levels of RF exposure and the levels at which medical science can accurately measure an effect on the human body. Thus, even if an RF source is imparting energy at 100% of the FCC safety guidance, that level is still below the effect level."

A look at the FCC safety levels for Radio Frequency Radiation (RFR) per Country will show you how laughable this statement is. When you look at the chart attached (Exhibit A) you will see that the US has the highest allowable outdoor pulsed Radio Frequency Radiation levels in the world! The US's levels are 100x higher than China's! Please see exhibit "A."

In 2019 these FCC safety levels were challenged by Environmental Health Trust with the court ruling in EHT et al. v. the FCC

In the December 2019 decision by the Federal Communications Commission (FCC) to retain its 1996 safety limits for human exposure to wireless radiation the United States Court of Appeals

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[1] In the Matter of DeMarco, the Author's clients, a New York family, arrived home to find workers installing something in the ground on their front lawn. When approached by the family, the workers allegedly explained to them that: (a) there was a public right-of-way across their front lawn, and (b) that the ground-wire they were installing was for a new streetlight that was going to be installed at the street in front of their home. Less than 48 hours later, the family came home to find a forty (40) foot cell tower on their front lawn. See http://abclocal.go.com/wabc/story?section=news/local/long island&id=7937987 http://newyork.cbslocal.com/2011/02/03/cell-tower-on-front-lawn-surprises-long-island-couple/ http://northshoresun.timesreview.com/2011/02/5977/town-asking-wireless-company-to-take-down-tower-built-on-1ount-sinai-familys-property/.

for the District of Columbia Circuit ruled that it was “arbitrary and capricious.” [2] [3] But in typical FCC form, they have yet to respond to the court ruling which required that the FCC (i) provide a reasoned explanation for its decision to retain its testing procedures for determining whether cell phones and other portable electronic devices comply with its guidelines, (ii) address the impacts of RF radiation on children, the health implications of long-term exposure to RF radiation, the ubiquity of wireless devices, and other technological developments that have occurred since the Commission last updated its guidelines, and (iii) address the impacts of RF radiation on the environment.”

<u>This Cell Tower Placement Goes Against Santa Rosa’s own Statements</u>

As a matter of fact, this infrastructure near this senior housing contradicts your mission statement, “*To provide high-quality public services and cultivate a vibrant, resilient and livable city” and your 2023 goal to “ensure a healthy and safe community for all”*, as well your sustainability goals.

Frankly, contrary to popular belief, this infrastructure is NOT green! An article written in EnviroTech Magazine, exposes the greenwashing facts about wireless technology. “*With the plan for connected devices everywhere, internet traffic is set to triple over the next five years.[4] Multiple masts and densely-placed small cells will proliferate. A single 5G base station is estimated to guzzle about as much power as 73 typical homes, a threefold increase over 4G.*”[5] [6]

“Once base stations, data centres and devices are added up, ***telecommunications could consume over 20% of the world’s electricity by 2025,*** *says Huawei analyst Dr Anders Andrae (compared to approximately 11% currently).[7] [8] Compare that with global aviation’s 2.5% share of GHGs: In a worst-case scenario 5G could create almost ten times that by 2030.*” [9] [10]

One point that might go unnoticed by the public is that 5G is building on 4G, not replacing it; in fact 4G usage is increasing.So energy use can surely only grow even if 5G becomes more efficient.” [11] [12]

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[2]ttps://www.cadc.uscourts.gov/internet/opinions.nsf/FB976465BF00F8BD85258730004EFDF7/$file/20-1025-1910111.pdf

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

[4]https://www.cisco.com/c/en/us/solutions/executive-perspectives/annual-internet-report/index.html

[5] https://spectrum.ieee.org/5gs-waveform-is-a-battery-vampire

[6]https://www.gsma.com/futurenetworks/wiki/5g-era-mobile-network-cost-evolution/

[7]https://www.researchgate.net/publication/320225452_Total_Consumer_Power_Consumption_Forecast

[8] https://www.mdpi.com/2078-1547/6/1/117/htm.

[9] https://ourworldindata.org/co2-emissions-from-aviation

[10] https://www.mdpi.com/2078-1547/6/1/117/htm

[11]https://www.cnet.com/tech/mobile/5g-myths-debunked-5g-wont-replace-4g-doesnt-cause-covid-19-and-is-still-rolling-out-during-the-pandemic/

[12]https://data.gsmaintelligence.com/api-web/v2/research-file-download?id=39256194&file=2712-250219-ME-Global.pdf

These points are echoed in a report created for government agencies entitled **Reinventing Wires - The Future of Landlines and Networks**, which addresses many of the issues public officials are faced with when making decisions about wireless infrastructure. This is written under the National Institute for Science, Law and Public Policy (NISLAPP) whose mission is to reconcile legal and scientific concerns in the formulation of intelligent, safe, and sensible public policy. I would suggest you read this before you make any further broadband or cellular infrastructure decisions.

Here is your warning and you are now on notice!

Thousands of independent studies show a multitude of biological symptoms that manifest when humans, as well as plants and animals, are exposed to pulsed microwave radiation. Placing this infrastructure near senior housing is reckless! I also have to wonder if you would want your own grandparent to live in this housing?

Our Government has Documented Harm

There are thousands of studies proving harm, some of which have been initiated by our own government. There's the Navy study [13] and the Army study [14], both showing biological harm and both revealing symptoms that were determined as Microwave Sickness, known today as Electromagnetic Sensitivity. These studies were completed in the 1970's after Navy personnel experienced debilitating symptoms after being exposed to Microwave Radio Frequency Radiation emissions when exposed to radar equipment.

The Navy Study, completed in 1971 by Dr. Zorach ("Zory") R. Glaser, Ph.D., LT, MSC, USNR has 2,300 references to documents that detail the biological effects of radio frequency and microwave radiation from various technologies including radar and mobile communications, navigational devices, and physical therapy devices such as microwave and shortwave diathermy.

The Army study entitled *MORTALITY IN RATS EXPOSED TO CW MICROWAVE RADIATION AT 0.95, 2.45,4.54, AND 7.44 GHz* and completed in 1974 showed that 0.95 & 2.45 GHz are the most lethal microwave frequencies. ***2.45 is used in most home wireless equipment***. The symptoms outlined in these studies are some of the most prevalent and common symptoms of Microwave Sickness, now called Electromagnetic Sensitivity.

As you can see, these low level frequencies are indeed harmful causing biological impacts and the Army Study points out that these low level frequencies can be lethal. And these effects have occurred at wireless radiation exposure levels hundreds of times lower than presently legal international limits. These effects have occurred after exposure to devices that are government approved and legally sold to the public.

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[13] https://www.magdahavas.com/wp-content/uploads/2010/06/Navy_Radiowave_Brief.pdf
[14] https://www.magdahavas.com/wp-content/uploads/2010/09/Mortarity_in_Rats_Exposed_to_CW_Microwave_Radiation.pdf

But It Doesn't Stop There!!!!

Peer reviewed research has demonstrated a myriad of adverse biological effects from wireless radiation including reproductive dysfunction, single- and double-stranded DNA breaks, creation of reactive oxygen species, immune dysfunction, stress protein synthesis in the brain, altered brain development, sleep and memory disturbances, and increased brain tumors.[15]

The Telecommunications Industry is using propaganda to get our buy-in on cheaper, inferior, unregulated, addictive cellular and broadband infrastructure while making us feel that we are well informed AND that we have no choice. We do have a choice. But we also have an obligation to our community! Please don't be a sucker. Be a public servant not a politician!

Telecommunications Companies Warn Their Shareholders

In fact, a number of corporations already advise their shareholders that they could face serious financial risks from the health damages due to RF. For instance, Crown Castle's 2019 10-K ANNUAL REPORT states that,

> *If radio frequency emissions from wireless handsets or equipment on our communications infrastructure are demonstrated to cause negative health effects, potential future claims could adversely affect our operations, costs or revenues.*

Most wireless companies, from AT&T to Nokia to T Mobile to Verizon Wireless, have issued similar warnings to their shareholders. **Why are shareholders being warned but not the people living near the equipment? These disclosures show that even corporations cannot assure safety.**

Due to these evaluations and the published scientific evidence, cell phone manufacturers cannot insure against health damages from the radiofrequency radiation emitted by their products and networks. In fact, most insurance plans do not cover electromagnetic fields (EMF) and have very clear "electromagnetic field exclusions." In order for insurance companies to cover EMF, one often must purchase additional "Pollution Liability" or "Policy Enhancement" coverage. According to CFC Underwriting LTD in London, the UK agent for Lloyd's:

> *The Electromagnetic Fields Exclusion (Exclusion 32) is a General Insurance Exclusion and is applied across the market as standard. The purpose of the exclusion is to exclude cover for illnesses caused by continuous long-term non-ionising radiation exposure i.e. through mobile phone usage.*

Even AT&T Mobile Insurance excludes loss from "pollutants" and its policy defines "Pollutants" as "Any solid, liquid, gaseous, or thermal irritant or contaminant including smoke, vapor, soot, fumes, acid, alkalis, chemicals, **artificially produced electric fields, magnetic field,**

[15] https://ehtrust.org/science/wireless-radiation-health-effects/

electromagnetic field, sound waves, microwaves, and all artificially produced ionizing or non- ionizing radiation and waste," (pg. 4) AT &T Mobile Insurance Policy, February 2014.

If insurance companies will not insure EMF and if even telecommunications companies consider EMF is a "pollutant," how can governments allow such an environmental pollutant without also warning their citizens as companies do?

Small Print Warnings with Possible Huge Repercussions

The small print inside every wireless device relays that wireless devices were never tested touching the body and suggests keeping the device a certain distance (each device is different) away from the body. [16]

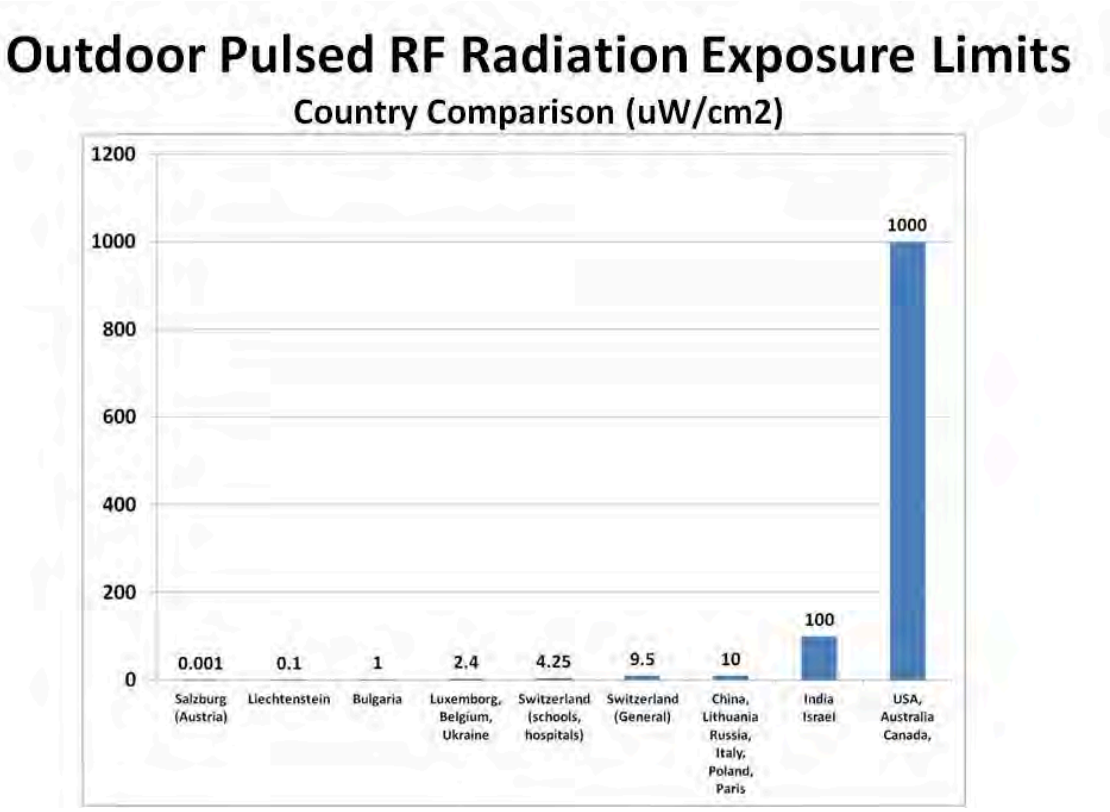
In Conclusion

This letter outlines only a fraction of the many issues that surround wireless infrastructure. I implore you to place this tower in a more appropriate spot and make sure your wireless municipal codes are written so you can mitigate the impact of this harmful infrastructure on your community. Don't allow the wireless industry to dictate policy and push inferior wireless infrastructure on the public using their well funded playbook that makes us feel well informed, when actually we are being disinformed!

Jodi Nelson
Director of Californians for Safe Technology

[16] https://ehtrust.org/think-wireless-technology-is-safe-read-the-fine-print-warnings/

Exhibit “A”


Outdoor Pulsed RF Radiation Exposure Limits
Country Comparison (uW/cm2)
1200
1000
800
600
400
200
0
0.001
0.1
1
2.4
4.25
9.5
10
100
1000
Salzburg (Austria)
Liechtenstein
Bulgaria
Luxemborg, Belgium, Ukraine
Switzerland (schools, hospitals)
Switzerland (General)
China, Lithuania Russia, Italy, Poland, Paris
India Israel
USA, Australia Canada,

to the urgent attention of
Santa Rosa California City Attorney Teresa Stricherz

Verizon seeks to erect a 69 foot tall cell tower
(telecommunications tower - monopine tree pole)
at 344 Colgan Ave. including:
a large microwave dish
a 30 KW diesel generator
13 antennas
8 radio units
6 large suppressors
6 hybrid cables
4 outdoor equipment cabinets
400 A PG&E service, access, utilities
and a 6 foot tall chain link fence enclosure

the next meeting is Jan. 18 2024 thursday

This is entirely inadvisable and inappropriate in such a highly populated area.

It is a clear imminent obvious danger/threat to the health, safety, welfare of thousands of people that would be adversely effected currently and in the future.

This includes all the hundreds thousands of people who shop at/patronize the many businesses at Santa Rosa Market Place — (shopping center/mall) — and all the other businesses in the immediate vicinity

i.e. Costco
Best Buy
Target
etc, etc, etc,

contd.

and all the many residents who reside in the immediate and nearby vicinity — i.e. Vintage Park Senior Apts.
La Esplanade Apts.
Colgan Mobile Home Park
Best Western Motel
Several houses / homes
etc.

I ask that you read the book The Body Electric, review the applicable scientific literature, confer with cardiologists, neurologists, immunologists, hematologists, etc re: the hazards.

Surely you would not want this equipment in the immediate vicinity of your home — front yard, back yard, or across the street from your home.

Therefore I ask that you respect — and protect — the persons who reside in the vicinity of 244 Colgan Ave and those who shop at Santa Rosa Market Place — Costco, etc.

I ask that you confer with the Planning Commission to not grant the Verizon application no. PRJ 23-009.

No amount of money can suffice to compensate for the purposeful, intentional, unnecessary harm done to human beings. For the city of Santa Rosa to be complicite surely has liability repercussions.

Thank you for your time and attention to this important matter.

Submitted by
a Concerned citizen
on behalf of the many many
people that would be adversely
effected if this application
would be granted.

I prefer to remain
anonomous for privacy reasons
and because I do not want
to suffer any retaliation from
Verizon or anyone else.

I hope you understand
and appreciate that.

thank you.

TRUST IN THE
Lord
WITH ALL YOUR
Heart

SAN FRANCISCO CA 940
13 JAN 2024 PM 2 L

FOREVER / USA

Urgent

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Santa Rosa California City Attorney
City Hall
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