



## **Sorrento & Area Residents Association (S.A.R.A.)**

**Email: SorrentoArea@gmail.com**

February 13, 2023

To Natalya Melynychuk and Individual CSRD Board Members

**Re: Proposed Cell Tower at 1030 Dilworth Road, Sorrento, B.C.**

Dear Natalya Melynychuk and CSRD Board Members,

We would like to thank you for representing the best interests of your constituents and for extending the time period for consultation of the proposed cell tower on Dilworth Road in Sorrento. We understand that it can be challenging to keep everyone happy as different levels of government promoting certain aspects in communities may come into conflict with the wishes of the residents.

We would like to support you in making the best decisions for our region, we would like to see evidence that the CSRD Board of Directors is recognizing and considering the valid concerns of their constituents. This is our home and it is most important to ourselves and the CSRD that our concerns are held above those of outside industry representatives seeking to expand their unnecessary business to the detriment of people, property and wildlife in our area. We believe that you, as Directors of the CSRD Board, have been elected to represent us and to support wise decision making for the protection and wellbeing of the communities and

environment under your jurisdiction. We seek to present concise information which calls into question whether the benefits outweigh the risks of adding new cell tower infrastructure, specifically the proposed cell tower at 1030 Dilworth, Sorrento.

Many in the Sorrento Community are concerned and even anxious about the ability of a telecom company to force a cell tower into our environment for a variety of reasons. We would ask that you act as a first line of defense for your constituents and take the opportunity to hear a delegation at your regular board meeting on Thursday, February 16, 2023, which is the third request for such a delegation. Your board does have certain tools and abilities to communicate with the ISED and telecom companies, and if you would please take the time to read this letter and review the attachments you will see there is a wealth of evidence pointing to the wisdom of questioning the roll out of increased wireless microwave radiofrequency radiation in our environment. Wired broadband is the answer to our rural connectivity as much of the infrastructure is already installed, it is more secure than wireless signals, uses significantly less energy and is completely safe.

### **Why do People Move to and Want to Stay in the CSR?**

A quick look at the CSR website shows every page with scenes of natural wonders and beauty, of families snowshoeing, as well as tranquil lake and mountain scenes. We have heard from so many people that they left the cities, towns and urbanized areas to move here so that they could live well in healthy, natural surroundings. Many use the word “escape” when they talk about coming here with their small families for a more wholesome lifestyle or explain why their retirements needs to be in a peaceful setting far from the “madding crowd”. Nowhere do we see pictures of cell towers overshadowing all this beauty, wildlife, and harmony of nature, and yet that is what is being proposed. Nowhere do we see images of families, all with their heads down engrossed in the latest streaming videos while snowshoeing or walking through the woods. People come here to walk with nature beside the streams in the forests, not to watch streaming videos in the forests. We have not come across anyone so far who wants to bring the trappings of the cities into our natural and peaceful communities.

The CSRD Board of Directors has placed a value, both intrinsic and as a tourism beacon, on this natural and harmonious background to life in the Shuswap. Signs notifying visitors and residents of a “Wildlife Corridor” where non-human residents are to be respected delineate a section of Trans Canada Highway from before Chase, going through Sorrento, and again the sign appears in the Balmoral area on the way to Salmon Arm. Did you know that the North Thompson and Shuswap Lake areas are listed as the top summer breeding areas for wildlife in the whole of Canada? (Birds of BC, Campbell.Kennedy). In all, 502 bird species have been recorded in BC, the most of any province or territory in Canada, with 312 species breeding here regularly. In addition, this area is host to large numbers of spring and autumn migrants moving through the Shuswap area on their way to other breeding and wintering grounds. Many of these species are listed in the government website as requiring our protection and this information needs to be carefully analysed - [www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems](http://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems)

The CSRD’s own “Telecommunications Siting and Facilities Construction Policy” on the CSRD website, p-22, page 3, makes reference to locations which are to be discouraged, as follows:

***“The following locations are discouraged:***

***h. Residential areas; and***

***i. Environmentally sensitive areas (including but not limited to riparian areas, sensitive habitat areas, bird migration routes and animal corridors).***

Our natural areas host a multitude of invaluable species, four footed and otherwise, such as at risk bats, turtles, and butterflies and insects of all kinds, including wild and honeybee populations, all of which play a role in pollination to create a healthy and sustainable natural environment. A new modeling study in “Environmental Health Perspectives” estimates that half a million people are currently dying prematurely every year due to global insect pollinator decline, because of its impact on availability and price of healthy foods such as nuts, legumes, fruits and vegetables. And the researchers say their estimate is “conservative.” “Today’s estimated health impacts of insufficient pollination would be comparable to other major global risk factors: those attributable to substance use disorders, interpersonal violence, or prostate cancer,” the researchers write.

Worldwide, honey bees and other pollinators help to produce about \$170 billion in crops, Scott McArt, assistant professor of pollinator health at Cornell University has stated. “Honey bees are one of the most important agricultural commodities in the country,” Geoff Williams, an assistant professor of entomology at Auburn University has also confirmed. Here in the Shuswap, and in Sorrento specifically, we produce many crops which require pollination to be successful, from apples to zucchini (A to Z) and everything in between. Insect and bee pollination is also required for many livestock feed crops in this area, including, but not limited to, alfalfa, buckwheat and clover. In short, all forbs and legumes require direct pollination, not wind, and those healthy crops contribute to healthy livestock production for farmers. Protecting our local food production in a rapidly changing world is of high priority to most people who understand climate change issues.

The US Department of Agriculture has this to say about the value of pollination:

<https://www.fs.usda.gov/wildflowers/pollinators/importance.shtml>

*“Pollination is not just fascinating natural history. It is an essential ecological survival function. Without pollinators, the human race and all of earth’s terrestrial ecosystems would not survive. Of the 1,400 crop plants grown around the world, i.e., those that produce all of our food and plant-based industrial products, almost **80%** require pollination by animals. Visits from bees and other pollinators also result in larger, more flavorful fruits and higher crop yields. In the United States alone, pollination of agricultural crops is valued at 10 billion dollars annually. Globally, pollination services are likely worth more than 3 trillion dollars.*

- *More than half of the world’s diet of fats and oils come from animal-pollinated plants (oil palm, canola, sunflowers, etc.).*
- *More than 150 food crops in the U.S. depend on pollinators, including almost all fruit and grain crops.*
- *The USDA estimated that crops dependent on pollination are worth more than \$10 billion per year.”*

The USDA report goes on to state that there are vital environmental benefits of pollination:

***Clean Air (Carbon Cycling/Sequestration)***

*Flowering plants produce breathable oxygen by utilizing the carbon dioxide produced by plants and animals as they respire. Levels of carbon dioxide in the atmosphere have been rapidly increasing in the last century, however, due to increased burning of fossil fuels and destruction of vital forests, the “earth’s lungs.” Pollinators are key to reproduction of wild plants in our fragmented global landscape. Without them, existing populations of plants would decline, even if soil, air, nutrients, and other life-sustaining elements were available.*

### **Water and Soils**

*Flowering plants help to purify water and prevent erosion through roots that holds the soil in place, and foliage that buffers the impact of rain as it falls to the earth. The water cycle depends on plants to return moisture to the atmosphere, and plants depend on pollinators to help them reproduce.*

**Reference:** *Flowering Plants, Pollinators, and the Health of the Planet (Marinelli, 2005): Plant. 2005. Janet Marinelli, Editor in Chief. First American Edition. Dorling Kindersley Limited (DK Publishing, Inc.). New York. 512 Pages.*

### **Cultural Importance of Pollination**

*Native Peoples traditionally recognized the importance of pollinators:*

- *Cultural symbolism*
- *Food plants*
- *Medicinal plants*
- *Plant-based dyes”*

When we understand the irreplaceable nature and benefits of all pollinators, we must ask ourselves if we can afford an unnatural and chaotic microwave radiofrequency radiation disruption from mobile communications if our own basis of existence is destroyed as a result? Our health and future is not separate from that of the natural world, and technology cannot replace that which we need to survive.

Several revealing scientific studies highlight the risks of microwave radiofrequency radiation to pollinators. In a Swiss study published in April 2011, a beehive was exposed to microwave radiofrequency radiation from two mobile phones placed close by and the piping sounds made by the bees was recorded. All experiments showed clearly that the bees used their piping communication to communicate a threat to the hive and to prepare to swarm, to evacuate the hive. This research points to mobile telephony exposure as one of the risks to be considered in colony

collapse. Other studies have shown that the microwave radiofrequency radiation influences and weakens the bees immune system, and it also interferes with the natural terrestrial magnetic field. Bees can detect the direction and change of the earth's magnetic field to orient themselves, however, when the natural magnetic field is constantly superimposed by a chaotic unnatural (man made) pulsed frequencies, the bees lose their sense of orientation and cannot find their way back to their hives. This risk to the natural orientation of the bees has been confirmed by several scientists.

In 2010, scientists at the Panjab University in Chandigarh, India, found that a strong decrease in the number of bees occurs in a hive when exposed to mobile phone radiofrequency radiation. Bees are usually able to find their way without any difficulty within a radius of 5 kilometres from the hive. The Indian study found that the worker bees returned less and less frequently to the hive during the exposure to microwave radiofrequency radiation, and then stopped returning altogether. If the worker bees do not return, the queen dies together with her entire offspring, causing a complete colony collapse.

Returning to the CSRD designated "Wildlife Corridor" which includes the whole of Sorrento and obviously the lake itself, we would bring your attention to the fact that this valley with its large body of water is a vital migratory route for many species important to the whole of Canada and beyond. A cell tower structure of the magnitude proposed on Dilworth Road will have red lights constantly blinking or staying on all night, both on the top and at the mid-section. As an additional risk to the microwave radiofrequency radiation exposure, if migratory birds are actively using magnetoreception to negotiate migratory paths, the red lights have been found to cause a disorientating imbalance which can threaten their migration.

Several scientific studies on wild birds at cell phone tower sites have shown strong negative correlations between levels of cell tower emitted microwave radiation and breeding, nesting and roosting in the vicinity. Many species exhibited nest and site abandonment, plumage deterioration, movement problems, and even deaths among some birds found close to the antennas. A study done by Everaert and Bauwens (2007) found long term exposure to cell tower emissions affected bird abundance and bird behaviour. Research conducted in Europe found that cell tower radiation impacted breed and migrating populations of birds, bees and other wildlife.

The proposed cell tower on Dilworth is directly inside the protected Wildlife Corridor, and within the least desirable area for such infrastructure. The importance of protecting the natural environment cannot be overstated. The CSR's own policy states that animal corridors, migrating routes, riparian areas and more are to be discouraged for the placement of cell towers. We do have numerous species which are at risk and deserve special protection

Here is some further scientific information on these risks for you to review:

### ***5G Frequencies are Highly Absorbed into Insects- Especially Bees***

[“Exposure of Insects to Radio-Frequency Electromagnetic Fields from 2 to 120 GHz”](#) published in *Scientific Reports* is the first study to investigate how insects (including the Western honeybee) absorb the higher frequencies (2 GHz to 120 GHz) to be used in the 4G/5G rollout. The scientific simulations showed increases in absorbed power between 3% to 370% when the insects were exposed to the frequencies. Researchers concluded, “This could lead to changes in insect behaviour, physiology, and morphology over time....” ([Thielens 2018](#)).

A landmark three part **2021 research review** on effects to wildlife published in *Reviews on Environmental Health* by U.S experts journalist Blake Levitt, Dr. Henry Lai and former U.S. Fish and Wildlife senior biologist Albert Manville state current science should trigger urgent regulatory action citing more than 1,200 scientific references which found adverse biological effects to wildlife from even very low intensities of non ionizing radiation with findings of impacts to orientation and migration, reproduction, mating, nest, den building and survivorship. This 150-page report has more than 1,200 references ([Levitt et al., 2021a](#), [Levitt et al., 2021b](#), [Levitt et al., 2021c](#)).

Cucurachi, C., et al. [“A review of the ecological effects of radiofrequency electromagnetic fields \(RF-EMF\).”](#) *Environment International*, vol. 51, 2013, pp. 116–40.

- A Review of 113 studies from original peer-reviewed publications. RF-EMF had a significant effect on birds, insects, other vertebrates, other organisms

and plants in 70% of the studies. Development and reproduction of birds and insects are the most strongly affected endpoints.

Professor Albert Manville, former US Fish and Wildlife advisor, has this to say about cell tower exposure on all species of birds and wildlife:

***“There is an increasing body of published laboratory research that finds DNA damage at low intensity exposures — well below levels of thermal heating — which may be comparable to far field exposures from cell antennas. This body of work would apply to all species, including migratory birds, since DNA is DNA, whether single-strand or double helix. The first study to find such effects was conducted by H. Lai and N.P. Singh in 1995 (Lai and Singh 1995). Their work has since been replicated (e.g., Lai and Singh 1996, as well as in hundreds of other more recent published studies), performed in at least 14 laboratories worldwide. The take-home message: low level transmission of EMF from cell towers and other sources probably causes DNA damage. The laboratory research findings strongly infer this relationship. Since DNA is the primary building block and genetic “map” for the very growth, production, replication and survival of all living organisms, deleterious effects can be critical.”***

While we speak to the Sorrento situation, the proposed Dilworth Cell Tower would send unimpeded signals far into the mountains on all sides including the North Shore of Shuswap Lake, and also across the lake to the communities along the lake shore and again into the mountains of the North Shore. These are all sensitive areas for wildlife of all kinds and deserve our protection, and would absolutely fall under the description of a “Wildlife Corridor”.

The following documents are attached which provide detailed scientific analysis of risks to birds, bees, bats, pollinators, insects and all living things:

1. “The Big Bee Death” – Diagnose-Funk – 2007
2. “Briefing Paper on the Need for Research into the Cumulative Impacts of Communication Towers on Migratory Birds and Other Wildlife.....” – US Fish & Wildlife Service
3. “Electromagnetic pollution from phone masts. Effects on wildlife” – Balmori -2009
4. “Mobile Phone Mast Effects on Common Frog Tadpoles – Balmori – 2010



5. "Possible Effects of EMF from Phone Masts on a Population of White Stork – Balmori – 2005
6. "Mobile Telephony Radiation Effects on Living Organisms" – Panagopoulos – 2008
7. "Bees, Birds and Mankind – Destroying Nature by Electrosmog" 17 pages – Ulrich Warnke

[https://kompetenzinitiative.com/wp-content/uploads/2019/08/ki\\_beesbirdsandmankind\\_screen.pdf](https://kompetenzinitiative.com/wp-content/uploads/2019/08/ki_beesbirdsandmankind_screen.pdf)

8. "US Department of Interior – letter setting forth risks to birds from cell towers and scientific references – 2014
9. "Briefing Memorandum – Wildlife and Habitat Conservation Solutions" – Albert Manville - 2016

Links to further listings of relevant scientific literature on wildlife and nature risks from cell tower exposure which are clear in showing damaging effects:

1. Physicians for Safe Technology - Scientific Literature – Environment and Wildlife Effects

<https://mdsafetech.org/environmental-and-wildlife-effects/>

This is a short review to bring to your immediate attention the unacceptable risks to species within this important nesting, breeding and migratory Wildlife Corridor and Shuswap Lake in its entirety, and we ask that you take time to review and consider risks that are of little or no concern to the telecoms which push for more microwave radiofrequency radiation coverage in all areas, sensitive or not. Based on the scientific literature available to date, it is clear that cell tower microwave radiofrequency radiation emissions are a dangerous risk to all species which live and migrate through Sorrento area and the Shuswap. We must put care and protection of the natural world as a higher priority than streaming videos.

We hereby request a Letter of Non-Concurrence from the CSRD to the ISED and other stakeholders in order to protect all species life forms living or migrating in the CSRD designated Wildlife Corridor to ensure their healthy and productive nesting, breeding and migration. We believe that we have an undeniable duty to protect in this instance.

**More Cell Towers is the Wrong Direction for Climate Change Initiatives**

Did you know that researchers are cautioning that 5G could contribute to climate change and increase energy consumption?

According to Brian Gregg of Site Path Consulting, multiple antennas with multiple frequencies would be deployed on the proposed Dilworth Cell Tower. Much ado has been made that Sorrento area residents require better cell phone coverage which is the reason for this proposed new tower according to Brian Gregg of Site Path Consulting. However, Sorrento area residents do not see that as accurate as all have reported good cell phone coverage in Sorrento area. Further, the nature of 5G frequencies is far beyond anything required for cell phone communications, specifically cell phone coverage for safety reasons.

To begin with, Brian Gregg has stated that there will be nine antennas. It appears that each antenna has a number of “cells” each outputting energy of 100 watts, many antenna being 100 cells x 100 watts. The power going into the cell tower is at least 2000 watts, and this energy is literally thrown away into the atmosphere causing more unknown effects than known. Experts in telecommunications have told us that when it rains, or snows, or other inclement weather such as fog or mist, the power of the antennas is increased to overcome resistance in the atmosphere. The increase in power during inclement weather is under control of the telecom, and no warnings would be given to the public during powering up of signals.

An investigative report from 2013 explained that the digital (wireless) economy used 1/10<sup>th</sup> of the world’s electricity supply, and that it was only projected to increase with serious consequences for the economy and environment. As the world of wireless devices looking to connect with cell towers grows bigger and bigger, and we put more and more of our devices on wireless networks, we’ll need more and more electricity. Our carbon footprint grows exponentially, at the same time people are under the misapprehension that wireless is “green technology”.

*“That’s about 10% of the world’s total electricity generation or roughly the combined power production of Germany and Japan. It’s the same amount of electricity that was used to light the entire planet in 1985. We already use 50% more energy to move bytes than we do to move planes in global aviation. No wonder your smartphone’s battery juice constantly seems on the verge of running out. As our lives migrate to the digital cloud — and as more and more wireless devices of all sorts become part of our lives — the electrons will follow. And that shift underscores how challenging it will be to reduce electricity use and carbon emissions even as we become more efficient.”*

*Bryan Walsh, Sr. Editor, Time*

The new frequencies encapsulated by the moniker, “5G”, requires thousands of new cell towers and millions of smaller cell antennas on utility and power poles to connect with billions of new wirelessly connected smart devices (IoT). Energy consumption is projected to skyrocket and could consume up to 1,000 times more energy. The carbon footprint for wireless industry (US) increased from 6 megatonnes of CO<sub>2</sub> in 2012 to 30 megatonnes of CO<sub>2</sub> in 2015, equivalent to adding 4.9 million cars to roads. An estimated 700% increase in mobile data traffic globally occurred between 2017 and 2022. As a result, the carbon footprint of the global digital system is now one of the largest, single contributor of global greenhouse emissions. The promise of 5G delivering 1,000 times as much data is that 5G will also consume up to 1,000 times as much energy thereby contributing to one of the greatest threats in our world today. Wireless networks are not sustainable. According to the IEEE, wireless technologies "consume at least 10 times more power than wired technologies. A 5G base station is expected to consume roughly three times as much power as a 4G base station and 5G will require far more base stations (Koziol, 2019). Greenpeace reports, If the "cloud" were a country, it would be the fifth largest consumer of energy in the world.

(please note that underlining certain references are links to the studies)

Despite claims that 5G is a tool to fight climate change, industry reports repeatedly document that energy efficiency gains have not been met. The reality is that the 5G “ecosystem” is energy intensive. Reports [caution](#) that the 5G networks will see a drastic increase in power requirements by 2030 due to the energy demands of powerful network elements like massive MIMO and edge

servers, the proliferation of 5G cell sites and the “energy hungry” network elements.

In 2020, the [High Council for the Climate](#) (HCC) in France released their report which found that 5G technology will lead to a significant increase in the carbon footprint of digital technology. The HCC issued five recommendations including clarifying climate issues before deploying new technologies, such as 5G, imposing carbon footprint limits on phone operators deploying 5G and better informing the public about waste or disproportionate use of energy associated with digital services

A 2022 literature [review by the University of Sussex Business School](#) on the energy use of 5G concluded that the notion that 5G is green technology is not backed by a transparent evidence base. The literature review examined the whole network level assessments of the operational energy use implications of 5G, the embodied energy use associated with 5G, and indirect energy use effects associated with 5G-driven changes in user behavior and patterns of consumption and production in other sectors. The authors state that the widespread adoption of unlimited data subscriptions for 5G users, VR and mobile gaming could “encourage energy-intensive user practices, contribute to ever-growing levels of data traffic, and counteract the energy-saving potential of 5G efficiency improvements.”

There are easily accessible documentaries revealing that the wireless industry is engaged in using starving and impoverished children as slaves to mine precious metals in various countries, far removed from the people who use the devices. These children often die from being buried alive underground when they have tunneled down into the ground without supports to access seams of cobalt. How can we ignore the massive corruption of whole peoples in the rush to produce all the components of our supposedly “green industry”?

“The wireless industry is engaging in greenwashing 5G,” stated Theodora Scarato Executive Director of [Environmental Health Trust](#). Scarato pointed to the CTIA wireless industry’s new campaign [“5G is Fighting Climate Change”](#) with images of the earth sprouting green vines and cell towers and called it “industry disinformation.” She pointed out numerous reports indicate that 5G and the 5G ecosystem which will include billions of new devices will in fact “increase energy consumption and contribute to climate change”

For example, the [Shift Project](#) found that the share of ICT in global greenhouse gas emissions has dramatically increased.

“Behind each byte we have mining and metal processing, oil extraction and petrochemicals, manufacturing and intermediate transports, public works (to bury the cables) and power generation with coal and gas. As a result, the carbon footprint of the global digital system is already 4% of the global greenhouse gas emissions, and it’s energy consumption rises by 9% per year.”

– Jean-Marc Jancovici, President of The Shift Project, member of the French High Climate Council.

They also found that current studies into 5G energy use fail to properly account for:

- the impact of the embodied energy associated with network infrastructure and user devices
- direct rebound effects associated with 5G-driven changes in mobile device user behaviour
- wider indirect energy use effects, including the scope for 5G to enable energy savings in other areas of economic and social life (so-called ‘enablement effects’)

There are solutions. Rather than everything wireless, wired connections can be prioritized for internet connections as wired ethernet consumes less energy than Wi-Fi networks. [Research](#) that has evaluated the cradle to grave environmental impacts of Wi-Fi access points compared to ethernet connections find that the energy consumption as well as CO2 emissions are generally higher for Wi-Fi access points as compared to ethernet switches.

Of note is a report from the [German Environment Agency](#) which found HD-quality video streaming produces different levels of greenhouse gas emissions depending on the transmission technology. They found that the lowest CO2 emissions are produced when HD video is streamed at home over a fibre optic connection in comparison to streaming using mobile networks.

1. Attachment – Environmental Health Trust information sheet on Climate Change and 5G

We are requesting that the CSRD issue a moratorium on additional wireless infrastructure, including but not limited to Cell towers, Cell infrastructure and towers on existing buildings, micro cells on power and utility poles, public wi-fi and all other wireless infrastructure in efforts to reduce electrical consumption and reduce carbon footprint in light of climate change initiatives required by all of us to protect our world.

**House of Commons, Standing Committee on Health (HESA) Recommendations accepted by Federal Government and Opposition 2015**

Most people are unaware that in 2015, the Government approved House of Commons Standing Committee on Health (HESA) held hearings that included invited testimony and briefs from Canadian and international experts. A report was prepared and tabled with the Federal Government and Opposition, with a letter of support from the NDP. “Radiofrequency Electromagnetic Radiation and the Health of Canadians”

<https://www.ourcommons.ca/Content/Committee/412/HESA/Reports/RP8041315/hesarp13/hesarp13-e.pdf>

The following 12 recommendations were made in that said report, to support the health and well being of Canadians. To date, no action has been taken by any government body despite the recommendations being accepted for action.

- 1. That the Government of Canada, in collaboration with the health departments of the provinces and territories, examine existing cancer data collection methods to improve the collection of information relating to wireless device use and cancer.*
- 2. That Statistics Canada consider including questions related to electromagnetic hypersensitivity in the Canadian Community Health Survey.*
- 3. That the Government of Canada, through the Canadian Institutes of Health Research, consider funding research into electromagnetic hypersensitivity testing, diagnosis and treatment, and its possible impacts on health in the workplace.*

- 4. That the Canadian Medical Association, the Royal College of Physicians and Surgeons, the College of Family Physicians of Canada and the World Health Organization consider updating their guidelines and continuing education materials regarding the diagnosis and treatment of electromagnetic hypersensitivity to ensure they are based on the latest scientific evidence and reflect the symptoms of affected Canadians.*
- 5. That the Government of Canada continue to provide reasonable accommodations for environmental sensitivities, including electromagnetic hypersensitivity, as required under the Canadian Human Rights Act.*
- 6. That Health Canada ensure the openness and transparency of its processes for the review of Safety Code 6, so that all Canadians have an opportunity to be informed about the evidence considered or excluded in such reviews, that outside experts are provided full information when doing independent reviews, and that the scientific rationale for any change is clearly communicated.*
- 7. That the Government of Canada establish a system for Canadians to report potential adverse reactions to radiofrequency fields.*
- 8. That an independent scientific body recognized by Health Canada examine whether measures taken and guidelines provided in other countries, such as France and Israel, to limit the exposure of vulnerable populations, including infants, and young children in the school environment, to radiofrequencies should be adopted in Canada.*
- 9. That the Government of Canada develop an awareness campaign relating to the safe use of wireless technologies, such as cell phones and Wi-Fi, in key environments such as the school and home to ensure that Canadian families and children are reducing risks related to radiofrequency exposure.*
- 10. That Health Canada conduct a comprehensive review of all existing literature relating to radiofrequency fields and carcinogenicity based on international best practices.*

*11. That the Government of Canada, through the Canadian Institutes of Health Research, consider funding research into the link between radiofrequency fields and potential health effects such as cancer, genetic damage, infertility, impairment to development and behavior, harmful effects to eyes and on the brain, cardiovascular, biological and biochemical effects.*

*12. That the Government of Canada and manufacturers consider policy measures regarding the marketing of radiation emitting devices to children under the age of 14, in order to ensure they are aware of the health risks and how they can be avoided.*

Given the qualified testimony to reach the conclusions which provided the basis for these recommendations, we request that the CSRD provide a Letter of Non-Concurrence for the current proposed cell tower application on Dilworth, and that further they send letters to all federal government parties requesting that they put into place the HESA recommendations which were accepted in 2015. No such recommendations for action would have occurred if HESA experts deemed exposure to microwave radiation to be safe.

We see this report's recommendations for action to protect the Canadian public as being of vital importance to have in place prior to allowing more damage to people and the environment from the continued rollout of wireless infrastructure.

We request that you write a letter to state that it is our position as a community voice that no further wireless infrastructure should be permitted in the CSRD area, and specifically Sorrento Wildlife Corridor and Shuswap Lake area until these government approved recommendations have been put in place to protect the public.

### **Health Risks and Loss of Property Value**

It is most telling that what is of greatest concern to community members is their health, the health of their children, families and friends, and loss of property value due to closeness of the proposed cell tower. In order to put power with the telecoms to force wireless infrastructure into communities, and to remove power from those communities to refuse their intentions, our federal government has



made agreements with the telecom industry that these topics are **not allowed to be considered** when challenging the siting of wireless infrastructure. Why, we ask, and the answer is obvious. These are the most important issues and the most problematic issues to the average person, because people are indeed sickened by microwave radiofrequency radiation exposure and their properties do indeed devalue on average 20% by being in close proximity to a cell tower. Neither of these situations are going to disappear, the health concerns and resulting loss of value in real property will continue to impact each other, growing health concerns, diminishing property values in relation thereto. The telecoms have been given free reign by the federal government to ignore all of the very real concerns of people who would otherwise be able to refuse risks to their person and property. Indeed, it is collusion for profit at the highest level, as the government sells off the frequencies for millions of dollars to the telecoms who then sell those frequencies to the public. Protection of profits on all levels appears to be the name of the game, at the expense of community health and wellbeing.

We cannot allow government bodies in collusion with big business to dictate what is important to the people of any given community and to walk roughshod over their concerns in order to solidify profits based on hiding truths. Residents negatively impacted by constant microwave radiation emitted by nearby Cell Towers emissions who then try to sell their homes to move to safety will be doubly subjected to the truths of living in the shadow of such an emitter of electrical pollution.

Brian Gregg of Site Path Consulting can only repeat the mantra that the telecoms abide by Safety Code 6, however, this outdated "safety code" has no relevance to whole body, 24/7, 365 ceaseless microwave radiofrequency radiation exposure from a cell tower. Firstly, Safety Code 6 measures the impact to a square cm of the head, calculating how long it takes for a cell phone in use beside the head to raise temperature of that square cm by 1 degree. While government and telecoms and their agents can hide behind an outdated and useless protocol which never had any bearing on damaging non-thermal effects which do occur, it is clear that there is no protection for whole body chronic, long-term exposure to microwave radiation.

No study has been done by the cell industry to ensure 5G as safe, which really should put a stop to further wireless proliferation immediately, and most likely, any study the telecom industry funded would be corrupted by financial influences. Rolling out new frequencies, untested on living things, which combine with all the current man made, unnatural frequencies is like rolling out a new drug to the market without any protection for the public. Independent science, with no financial links or undue pressure from the telecom industry is the only science which should carry weight in deciding if their product of microwave radiofrequency radiation emissions is safe for people and the community.

How can it be that microwave radiofrequency radiation from cell towers, and in fact, emissions from all wireless devices are classified by the W.H.O. as possible to cause human cancer – a Class 2B rating carrying the same level of risk as lead exposure, DDT and chloroform exposure to name, and yet we, as people to be subjected to this exposure, have no say in concerns for our health? As you can understand now, our Canadian “safety” guidelines are based on very short term exposure to one device, not a massive array of antennas putting out multiple frequencies producing a cacophony of chaos in the natural world. We cannot accept something which is designated by the W.H.O. as possible to cause human cancer, and therefore carries risk and is not safe, to be called “safe” by the industry profiting from the proliferation of such a toxic agent.

The onus needs to be on the telecom industry to prove its products are safe on all living things before they continue rolling out at a price that is too great to bear for the people and the environment.

Independent scientists are beginning to produce research showing the effects of 5G on human health, and attached you will find a case report of the microwave syndrome after installation of 5G by Dr. Lennart Hardell. Here is more information and a link to that recent scientific article:

Dr. Hardell and Mona Nielsson have presented a study of 2 healthy individuals' effects after being exposed to a 5G station for only a couple of days. This is a plea for a ban on 5G, and elimination or serious reduction of EMF/RF in our environment.

## **Case Report: The Microwave Syndrome after Installation of 5G Emphasizes the Need for Protection from Radiofrequency Radiation**

" To our knowledge, this is the first study of health outcomes in persons exposed to 5G RF radiation. Within a couple of days, a new 5G base station caused severe symptoms in two previously healthy persons that correspond to the microwave syndrome. The deployment of 5G also caused a dramatic increase in maximum (peak) microwave radiation exposure, from 9 000  $\mu\text{W}/\text{m}^2$  to  $>2\ 500\ 000\mu\text{W}/\text{m}^2$  . The symptoms quickly reversed when the couple moved to a dwelling with much lower exposure."

[https://www.gavinpublishers.com/assets/articles\\_pdf/Case-Report-The-Microwave-Syndrome-after--Installation-of-5G-Emphasizes-the-Need-for--Protection-from-Radiofrequency-Radiation.pdf](https://www.gavinpublishers.com/assets/articles_pdf/Case-Report-The-Microwave-Syndrome-after--Installation-of-5G-Emphasizes-the-Need-for--Protection-from-Radiofrequency-Radiation.pdf)

In addition, we attach a 5G Appeal from over 400 scientists and MD's which speaks to risks of exposure to human health and has a full set of references.

The onus needs to be on the telecoms and ISED to prove that all these microwave radiation frequencies and 5G are safe for all living things before they continue rolling out more wireless infrastructure, compounding problems already developing.

### **Cell Towers limit the freedom of movement for people with the disability "Electrohypersensitivity"**

Electrohypersensitivity (EHS) is a disability recognized in Sweden since 2000, the U.S. since 2002, and by the Canadian Human Rights Commission in 2007. EHS is a disability triggered by electromagnetic and microwave frequencies, that can result in debilitating headaches, head pressure, slurred speech, migraines, heart arrhythmia, loss of functioning, sleep disturbances and skin rashes.

Allowing the Telecom industry to pollute the environment with more cell towers and micro cells on utility poles will make life unbearable for many who escaped the city to find a quality of life in rural Sorrento and area.

Researcher Dr. Cindy Russel has reviewed the available science on 5G millimeter waves in 2018 and concluded that “the addition of this added high frequency 5G radiation to an already complex mix of lower frequencies, will contribute to a negative public health outcome, both from physical and mental health perspectives.”

Among other things, she found that millimeter wave radiation is linked with effects on the immune system, a potential increase in antibiotic-resistance, an increase in the functional impairment of those with electrohypersensitivity demonstrating a number of EMF-related symptoms, and effects on the eyes and skin.

The more engineers tamper with the microwave radiofrequency signal to improve its speed and fidelity, the more chaotic and foreign it becomes to our body. This has been confirmed numerous times by researchers such as Blackman and Panagopoulos.

There are at least three important factors than frequency alone which makes 5G more dangerous:

- Communication bandwidth, which refers to the range of frequencies used in communication simultaneously (i.e., the width of the communication channel) – which is much wider in 5G in the mm Wave band
- Modulation scheme, which refers to different techniques used by industry to modify signals and improve connectivity – will be much more complex and most probably much more disturbing biologically with 5G
- Polarization, which refers to the orientation of an EMF signal – is again much more complex for 5G. The industry will use new techniques such as beam-forming and “massive-MIMO”, which will likely make the signal much more disturbing biologically.

In a world where the health impacts of 2G to 4G technologies are just emerging, it is extremely irresponsible to add highly manipulated millimeter wave length 5G to the mix instead of actively reducing our global exposure to this recognized environmental pollution.

**Presentation of Petitioners signed letters to CSRD**

As stated previously, many people in the community are greatly concerned, and have taken the time to review and understand what is at stake with being exposed to more and more wireless technology in everyday life, exposures which they cannot protect themselves from and have no power to disable. For people who see beyond the empty platitudes of the telecom industry, they find themselves confronted with a price for wireless technology emissions in their lives which they are not willing to pay.

We would like to present these hundreds of important petitions currently on hand to the CSRD Board at your regular board meeting on February 16, 2023, to show your community members that you wish to avail yourself to their concerns and opinions.

**Community Requests for Action from the CSRD Board of Directors**

1. We are requesting a Letter of Non-Concurrence from CSRD with regards to the Dilworth Road Cell Tower application in order to protect the Wildlife corridor which includes Sorrento and the Shuswap Lake and the North Shore, all of which would be exposed to 24/7, 365 environmental pollution from microwave radiofrequency radiation emissions.
2. We are requesting a moratorium to the addition of any more new wireless infrastructure, including but not limited to cell towers, cell infrastructure on existing buildings, micro cells on power and utility poles, and public wi-fi until this microwave radiation exposure is found to be safe, given that this exposure has been classified by the W.H.O as a 2B possible cause of human cancer, same categorization as lead, DDT, chloroform, occupational firefighters exposure, HIV and more.
3. We are requesting a moratorium to the addition of any more antennas onto existing cellular infrastructure, including cell towers, by way of a written letter from CSRD Board of Directors, in order to protect Wildlife Corridor

aspects and given that exposures from all these wireless emitters is classified as a class 2b possible to cause human cancer risk.

4. We are requesting a letter from CSRD Board of Directors to all federal governments requesting that they immediately put into place the 12 Recommendations for Action to protect the public as presented to Government in the House of Commons Standing Committee on Health Recommendations 2015.
5. We are requesting that all wireless infrastructure on private or government property within Sorrento area be subjected to regular and routine independent testing as to frequencies being broadcast and power density and that CSRD Board of Directors provide a letter to the telecoms doing business in the area requesting this protection of the public be part of regular maintenance work, and said independent report on testing be available for public review within one week of the testing.
6. We are requesting that the CSRD write a letter to the telecom agencies stating a change to any long term agreements, that no grandfathering policies will be allowed for the continued microwave radiation emitters from current cell infrastructure if and when the WHO classification for microwave exposure is upgraded to either Class 2A, probably cause of human cancer, or Class 1, known carcinogen.

Thank you for taking the time to review this material, which is a small section of available science highlighting risks of this microwave radiation technology.

We look forward to appearing in person on behalf of our community members as a delegation at your regular CSRD Board Meeting on February 16, 2023.

Sincerely,

Sandra Heschuk, Farmer, Elson Road, Sorrento, B.C.

Una St.Clair, Farmer, Educator, Well Banks Road, Sorrento, B.C.

Percy Folkard, Rancher, Teacher, Agricultural Consultant, M.Sc. P. Ag., Davies Road, Sorrento, B.C.

**S.A.R.A. Community Representatives**