

BASIC PREMISES & OBJECTIONS

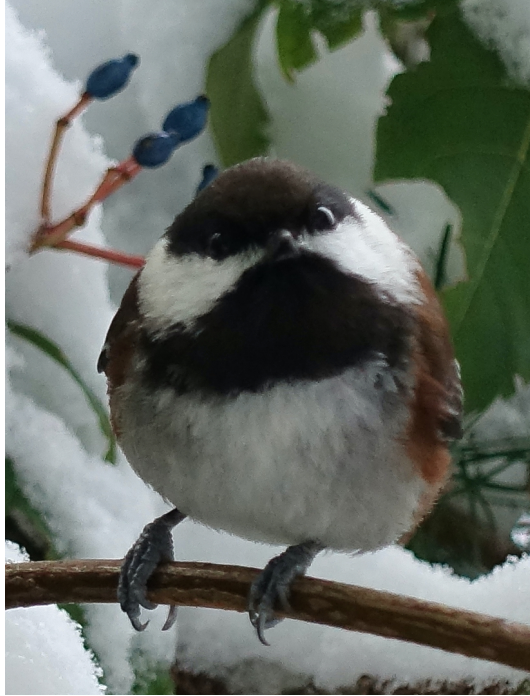
To the proposed Rogers cell tower on Hornby Island

We do not consent to our bodies, families, animals, pollinating insects and all living creatures on our properties being subjected to the electromagnetic pollution from a cellular communications tower operating continuously in the centre of our island. Festooned with multiple microwave (and eventually millimeter) transmitters, this proposed telecommunications tower would gravely increase our *involuntary* exposure to unwanted Radio Frequency Radiation (RFR) that could impose considerable costs on our community's health, environment and livelihoods.

Every Gigahertz hurts. While there are as yet no independent studies showing that 24/7 exposure to 4G Radio Frequency Radiation is safe, mounting worldwide injuries from electromagnetic fields (EMFs) and more than 1,800 contemporary studies conclusively show that when subtly whispering frequencies regulating the life-processes of all exposed organisms are overwhelmed with wireless frequencies oscillating *billions of times every second*, the effects are instantly deleterious. Moreover, these cascading health impacts are cumulative with each additional exposure.

We refuse to participate in the Rogers wireless experiment in a place where residents do not walk around glued to screens while eagles soar overhead. Attempting to impose a telecommunications tower festooned with various transmitters on a rural refuge for those seeking to *reduce* their electrosmog exposure violates our most fundamental Human Rights. And is a direct attack on our island's wildlife and their habitats.

Common chronic symptoms of prolonged wireless exposure include “dizziness, nervousness, chest pain, shortness of breath, numbness and tingling, weakness and difficulty in concentrating.” What happens if animals, children and elders start to get sick? Or, on a small island with a median age of 65, the irradiated infirm begin dying prematurely? [NOTE: All underlined sections are hyperlinks to sources.]



Please don't hurt me -Will Thomas photo

What about our birds and bees? Worldwide, 1 of every 8 bird species is facing extinction. The number of birds in Canada and the United States has declined by 29% — 3 billion birds — over the past half-century. Studies painstakingly ignored by the telcos have found that a cell tower smorgasbord of “resonant (piggybacking) frequencies may result in biological effects at very low intensities.”

So far, 113 separate investigations have shown the development and reproduction in birds, bees and other insects to be “the most strongly affected” by the 4G wireless frequencies initially sought by Rogers. Just as bees unable to lay eggs abandon their colonies after about ten days’ wireless exposure, birds exposed to unrelenting wireless emissions refuse to mate and leave their nests.

Hornby’s beekeepers are particularly alarmed. Due to their small size and inability to thermo-regulate when heated by electromagnetic radiation, bees are especially susceptible to RFR. Current 4G electromagnetic fields also interfere with the bees’ magneto-receptors used for navigation/orientation. Moreover, Bristol University researchers have found that bees’ hairs are highly sensitive to flowers’ delicate electrical fields.



Hundreds of bees drop dead around 5G towers in California

During controlled trials in Switzerland, bees reacted to mobile-phone signals with high-pitched ‘piping’ cues to desert the hive. (Appendix 1.) Beehives exposed for just ten minutes to 900MHz frequencies fell victim to colony collapse disorder.

Here on Hornby Island, we are acutely aware that further supply chain and climate change disruptions to industrial harvests will very likely make us much more reliant on local food sources. Who will intervene — *and what compensation is even possible* — if bees and seed-scattering birds abandon their hives and nests, and other pollinators start dying?

We further and most strenuously object to the bad faith shown by Rogers Communications through their lobbyist, Brian Gregg and his company, SitePath Consulting in dealing with our community. After his Telus tower proposal was defeated here in 2017, in the summer of 2022 a warier Mr. Gregg bypassed our Local Trust Committee (LTC) by submitting the Rogers application to the distant Trust head planner for our area, who “forgot” to notify our local trustees. Months passed until a Nov. 3 notice in local publications alerted us to this new threat.

If Mr. Gregg had communicated directly with our LTC, he would have learned of the more stringent protocols mandated by our MODEL STRATEGY FOR ANTENNA SYSTEMS (motion carried September 9, 2022) — as well an affordable housing development under consideration for his chosen site.

Incorrectly citing Hornby’s lack of siting procedure, Mr. Gregg chose instead to follow the telco industry’s own “guidelines”, set forth by Industry Canada — currently rebranded as Innovation, Science and Economic Development (ISED). Apprised of his error, Rogers continues to defy the Trust’s Antenna Siting Model’s most important proviso: “The Model Strategy federally compels companies to engage in extensive public consultation before installation of cell towers.” (Appendix 5.)

Rogers and SitePath are currently in violation of ISED’s own “minimum” PUBLIC CONSULTATION REQUIREMENTS, mandated by the Comox Valley Regional District, whose jurisdiction includes Hornby Island. As set forth in the CVRD’s Telecommunication and Antenna Systems Application and Consultation Process: “The Proponent is to host a public information meeting in order to share relevant information with members of the public who may be affected by the proposed development. The public information meeting: *Should be hosted in-person.*” [our emphasis]

We further point to our own siting protocols, which stipulate that for a tower exceeding 15 meters in height, “a public information meeting” is required. (Signed by Hornby LTC Sept. 9, 2022.) We strongly advise Rogers Communications, SitePath Consulting, the CVRD and the Islands Trust not to violate these local and federal mandates. As a Trust Regional Planning Manager has said on record: “The Model Strategy federally compels companies to engage in extensive public consultation before installation of cell towers.”

I have yet to meet anyone who has seen an illustration of the proposed tower, or renderings of the site before and after construction. Glitch-prone virtual calls that discriminate against those unable to log on (including our trustees) are no substitute for the required public presentation — including site maps and illustrations of the proposed tower *in situ*.

A straw poll of Hornby residents conducted by this writer asked if they had received an unsolicited information package from Rogers outlining their proposal and application process, including a site plan and sketch of their 63-meter-high cell tower? (yes or no)

And do they feel that Rogers and the Islands Trust have provided them with enough information in a timely manner to be fully informed on this tower application and date of the LTC vote? (yes or no)

Replies to date:

Question 1 = 100% NO

Question 2 = 100% NO

This response is echoed in 17 Petition sheets signed by 249 concerned Hornby Island residents opposed to the Rogers tower.

What else are Hornby Islanders saying? The following are key excerpts from a group letter sent to Rogers on Jan. 31, 2023:

“The resident citizens of Hornby Island have many questions regarding the Public Consultation Process... Expressions of concern are being raised throughout the community, including the Fire department, the Depot staff, the Elementary School, the social housing committee and a large number of residents...

“We need answers to why our community is being caged into feeling that we no longer have any say over our own destiny. This is not what we moved here for. This is not why we chose to raise our children and grandchildren here...

“Corporate bullying and government overreach that seek to cut the public out of decisions heavily impacting our lives cannot and should not be tolerated... A process that disregards our right to be informed, and either reject or consent to life-altering decisions, has life-long, hence legal, implications.”

Brian Gregg complains that during his 2017 public presentation, some islanders allegedly voiced amplified objections to the Telus millimeter tower proposal. “Someone” even defaced one of the Telus displays with a *permanent* marker! That grandmother told this reporter she had used a black marker to “correct inaccuracies in the site plan” — *whilst speaking with Mr. Gregg.*

No complaints were made by him at the time. Six years later, the SitePath founder announced he was “too afraid” to face the community his actions directly threaten — before admitting on a subsequent video call that he has never felt under physical threat from anyone here. Not even after blandly assuring one of our members by email (Jan 14, 2023)... “there is plenty of space for housing” on the Crown Land targeted for the proposed tower.

As Brian Gregg went on to explain: “Rogers’ proposed footprint is nominal and less than a single family house. There are many instances wherein communication sites are in proximity to other uses such as housing.”

Really, Mr. Gregg? Rogers is inviting us to cluster urgently needed affordable housing units close beneath a telecommunications tower known to produce serious health issues at point-blank range? Siting cell towers adjacent to homes is recognized by governments worldwide as a dangerous practice. SitePath’s admission also directly contravenes the prohibitions set forth in the ISED, CVRD and Islands Trust Model Antenna Siting protocols.

Furthermore, schedules D1 and D2 in our Community Bylaw #149 opposes siting cell towers in Aquifers and Environmentally Sensitive Areas. The proposed tower is well within protected area IIA. Furthermore, our Model Siting Strategy’s “Section C: Discouraged Locations” discourages cell tower sites within “bird and wildlife habitat...” that “adversely impact view corridors...” and/or “affect the scenic qualities of a corridor.” (Appendix 2.)

Since the “scenic qualities” of our island attract year-round residents and many thousands of annual visitors — and because tourism is the mainstay of our local economy — we submit that erecting a tree-topping, steel eyesore towering over Hornby’s central district would present a significant economic threat to the artisans, vacation renters, recreation providers and many other local entrepreneurs dependent on our island’s year-round, “scenic” trade.

How many residents and visitors who come to Hornby seeking respite from urban “electrosmog” will move away or stay away if this proposed telecommunications tower becomes operational?

We further observe that, once approved, ISED allows tower height to be increased by 25% with *no additional permits required*. This means we are likely looking at a 250-foot structure in the middle of our island!

Moreover, if approved by our LTC and ISED, Rogers could lease space on their tower to other telecom providers for additional 4G and (eventually) 5G antennas — without any additional regulatory oversight. Since this island is primarily served by Telus, they will be first in line to install their transmitters on the Rogers tower. Neither the residents of Hornby Island nor the Islands Trust would receive any of these revenues. But we will be left with the consequences.

Fire is a constant concern on a densely treed island subjected to extreme drought conditions. Many online videos and news stories showcase cell tower fires, which are extremely difficult to extinguish. Whether the result



of maintenance or malfunction, a burning telecommunications tower on the edge of Mt Geoffrey Provincial Park would almost certainly ignite the surrounding forest canopy.

Quickly ascending Mt. Geoffrey's steep slopes, such a "crown" blaze would present a nearly impossible challenge for our volunteer fire-fighters to control.

How big is this risk? We insist that *any* additional hazard to our forests and their wild inhabitants is unacceptable.

Furthermore, we are aware that through a process called "superheterodyning", intersecting frequencies from multiple cell tower antennas, including an inevitable mix of microwave and millimeter wavelengths, add to or multiply each other — resulting in additional unintended frequencies that can cause much hotter power densities and "radio-frequency-related arcing." Welding repairs have also started cell tower fires. [Photo: cell tower fire during maintenance in Bensalem, Pa. - CSMonitor.com]

Trees that aren't burnt down improve air quality, scrub greenhouse CO2 from the air, release oxygen, help prevent flooding, keep soils nutrient-rich, and provide habitat for many critters. Installing wireless infrastructure further compromises forests by felling and aggressively trimming trees to build the road access and concrete pad necessary to extend a tall steel tower like a corporate middle-finger. Mechanical digging and nonstop Radio Frequency Radiation further disrupt vital root zones extending underground far beyond the interwoven canopy above.

We further underscore the many documented instances of withered plant life and forest seedling dieback in proximity to cell towers, with attendant oxidative harm on tightly interwoven soil, fungi, insect and waterborne ecologies.

If a cell tower fire poses a major threat to Mt. Geoffrey's woodlands, extensive forest withering and dieback from this ill-advised commercial adventure is a certainty. Plants perceive and respond to electromagnetic fields. "Weak radio frequency radiation exposure from mobile phone radiation on plants" — a meta-analysis of 45 peer-reviewed scientific publications — concluded that *90% of plants exposed to wireless antennas show "physiological and/or morphological effects."* [our emphasis]

Those who follow rather than dodge "the science" know that in all lifeforms within range of wireless, artificially inducted low intensity electromagnetic fields open voltage-gated calcium channels, leading to excessive calcium inside cells and consequent dis-ease. The same mechanism afflicts plants with excess calcium, resulting in thinner cell walls, stunted growth from smaller chloroplasts and mitochondria, and enhanced emissions of terpenes and other volatile compounds at the non-thermal levels Rogers, ISED and Health Canada's "Safety Code 6" so determinably ignore.

"Trees are receiving antennas for electromagnetic fields," explains Environmental Health Trust. Electromagnetic frequencies from telecommunications towers have been found to alter the growth and development of trees. A detailed nine-year study in two German cities has found extensive harm to trees from electromagnetic radiation emitted by mobile phone masts hundreds of feet away.

Undercut Slope, North of the TETRA Base Station



Taken from a must-see study crammed with alarming photos by Rolf and Rosa Grimm, exposed by logging, this devastated slope is 2950 feet from a low-power 383 MHz base station. EMF-induced tree damage usually starts on the exposed side, this multi-year survey found, “extending to the whole tree over time.”

Radiofrequency radiation injures trees around mobile phone base stations — a published field study that monitored over 100 trees for nine years — has found “a high level of damage to trees” in the vicinity of phone masts. The authors conclude that “*deployment has been continued without consideration of environmental impact.*” [our emphasis]

Despite the myriad dangers of non-ionizing EMFs extensively documented since 1945, Rogers threatens full cellular coverage on an island already mostly served by cell towers on nearby Vancouver, Denman and Texada islands. Problem is, *we are all highly conductive antennas*. If a cell phone is receiving a signal pulsating at 24, 36 or 50 billion-times-per-second — so is its operator!

It’s all these silently jackhammering pulsations — *not* power levels — that result in wireless afflictions. The radius of emissions requiring residents' notification of this proposed pollution source extend to our recycling depot, community workshop, ballpark, gravel yard, new firehall, community hall, clinic, credit union, dental bus, elementary school, and Mt. Geoffrey’s tower-facing slope. (Appendix 4.)



Mt. Geoffrey Provincial Park attracts international visitors -Will Thomas photo

If 4G is proving increasingly problematic, the reckless rush to 5G promises catastrophe. Soon after Nanaimo became “the first city in Canada to receive Rogers Communications’ new 3500 MHz 5G cellular system” last June, some residents began suffering nose bleeds and other EMF-related health problems from untested millimeter waves. The *DailyMail* reports that high-band 5G frequencies “may affect the eyes, the testes, the skin, the peripheral nervous system, and sweat glands.”

“5G is a power hog,” observes the Environmental Health Trust. “Higher data rates can only be achieved by consuming more energy,” which in turn, “supercharges demand for more electronic devices,” cautions International Policy Institute Cybersecurity Fellow, Claire Curran. In sharp contrast, non-irradiating fibre optic bundles are the most climate friendly transmission technology, providing streaming video transmission nearly 50 times more efficient than 5G.

Even worse, as 5G replaces current 4th Generation technologies, energy consumption is expected to increase 61x between 2020 and 2030.

Rogers may be fine with accelerating climate shift, but islanders watching tidelines inexorably rise are not. The HCC, an independent body advising the French government on policies to reduce greenhouse gas emissions, warns that 5G tech alone will add up to 6.7 million tonnes of CO₂e (equivalents) per year by 2030.

4G is the gateway drug to 5G. So it is with increasing concern we observe that the corporate/government push to force worldwide connectivity onto increasingly AI-directed humans and machines requires high-capacity “backhauls” to feed 5G’s voracious data demands through fibre-optic cables. Coming so closely on our decision to commence construction of a high-speed fibre-optic communications network, Rogers’ announced strategic goal of installing 5G “cells” across Canada leaves us with zero doubt that this Toronto-based corporation’s ultimate objective is to inflict 5G on our island. Just as soon as their 4G Trojan tower is approved and our fibre optic network — already under construction — becomes available.

As noted above, not only would this 4G/5G mix on the same tower greatly increase our forest fire risk, the notoriously short-range of weak 5G “junk frequencies” necessitate tacking small cell, switchable beam scanning transmitters onto power lines and power poles at least every 250 meters. And much closer in a place like this lushly treed island, where a single leaf can block a 5G tracking beam.

If Rogers’ initial 4G tower proposal is approved, every property on Hornby Island could, within a few years, be subjected to pulsed millimeter waves already in use for crowd and pest control. And what about the birds? Punjab U. researchers have observed that sparrows eggs are disfigured after exposure to 5G radiation for just 5-30 minutes. This means that an extremely high density of small cell EMFs in bird habitats “could cause whole populations of birds to have mutations that threaten their population’s survival,” Curran notes.

Following repeated and spurious refusals to abide by the community participation protocols mandated by our Community Plan, the Islands Trust, and CVRD/ISED, we do not trust any statements made by Rogers Communications and their SitePath lobbyist. At this point in a much abused process, only a long-overdue public meeting can clear the air.

In rejecting the initial Telus application to install a cell tower in Dove Creek, the CVRD has requested an environmental assessment. We request the same due diligence, with the proviso that any EIA conducted on our environmentally sensitive island *must be conducted by an assessor with EMF expertise.*

Additionally, we want information on Rogers, SitePath, Trust and CVRD insurance policies specifically covering all damages resulting from EMF exposure.

IN CONCLUSION

Denial is not an effective defence against “always on,” intensely pulsating electromagnetic fields. Will government regulators and our local trustees protect the plant, insect and animal kingdoms that nourish our souls and keep us alive? RFR researcher and nature poet, Lynne Wycherley calls continuous irradiation from rapidly proliferating small cells, wireless masts and telecommunications towers, “fracking the air.” This “super-saturated wireless,” Wycherley writes, “is dysfunctional. And spiritually disturbing.” It suggests a mindset deeply at odds with the orchid-like beauty of the Earth.”

The rush to irradiate every nook and cranny of this wounded planet for corporate profit and social manipulation suggests unelected technocrats run amok and unexamined technologies out of control. Chronic illness and general malaise among our residents, forced dislocation of wildlife and our EMF-susceptible residents, ruined viewsapes, disillusioned tourists seeking electromagnetic refuge, RFR-withered flora, heightened forest fire risk on a steep-sloping mountainside, and heightened stress among expectant mothers, health-challenged seniors and all Hornby Islanders cognizant of EMF dangers — are too steep a price for questionable convenience. Especially since our emergency responders already communicate via a radio antenna near the firehall.

With these considerations in mind, we insist that all corporate and elected officials involved in the Rogers project on Hornby Island first and foremost follow the Precautionary Principle employed by their European counterparts. This cold dash of sanity requires the purveyors and enablers of any potentially harmful tech to demonstrate its safety *before* rolling it out here.

In closing, we wholeheartedly endorse the Ford Cove resident who so eloquently told a Telus rep at our 2017 open house: “Just go away. Leave us alone.”

In service,
William Thomas
for the Concerned Residents of Hornby Island

Special thanks to West Coast Environmental Law, the Dove Creek resistance and Vancouver Island Safe Tech Alliance for their contributions to this report.



This Hornby visitor finds good cell coverage on Big Trib -Will Thomas photo

Appendix 1.

EMF IMPACTS ON FLORA & FAUNA

Sources & Links

Levitt, Lai and Manville (2022) Low-level EMF effects on wildlife and plants:

- [Effects of non-ionizing electromagnetic fields on flora and fauna, part 1.](#)
- [Effects of non-ionizing electromagnetic fields on flora and fauna, Part 2 impacts: how species interact with natural and man-made EMF .](#)
- [Effects of non-ionizing electromagnetic fields on flora and fauna, Part 3. Exposure standards, public policy, laws, and future directions.](#)

(full report)

[Anthropogenic Radiofrequency Electromagnetic Fields as an Emerging Threat to Wildlife Orientation](#)

[Impacts of radio-frequency electromagnetic field \(RF-EMF\) from cell phone towers and wireless devices on biosystems and ecosystems](#)

[Review of the ecological effects of radiofrequency electromagnetic fields \(RF-EMF\)](#)

[Report on Possible Impacts of Communication Towers on Wildlife Including Birds and Bees. \(Ministry of Environment and Forest. India\)](#)

(pdf)

[Biological effects from exposure to electromagnetic radiation emitted by cell tower base stations and other antenna arrays. \(Page 374- Biological Effects at Low intensity\)](#)

[Electromagnetic Pollution From Phone Masts. Effects on Wildlife Studies on the Effects of Radio-Frequency Fields on Conifers](#)

Long-term exposure of young spruce and beech trees to 2450-MHz microwave radiation.

Radiofrequency radiation injures trees around mobile phone base stations.

Forty Percent of the World's Bird Populations Are in Decline

Effects of Different Kinds of EMFs on the Offspring Production of Insects

Electromagnetic radiation: Influences on honeybees

Mobile phone-induced honeybee worker piping

Changes in honeybee behavior and biology under the influence of cellphone radiations.

Report on Possible Impacts of Communication Cell Towers on Wildlife Including Birds and Bees.

Exposure to cell phone radiations produces biochemical changes in worker honey

The effects of microwaves on the trees and other plants.

The influence of electromagnetic fields on flora and fauna

The Soil Food Web. It is a living organism.

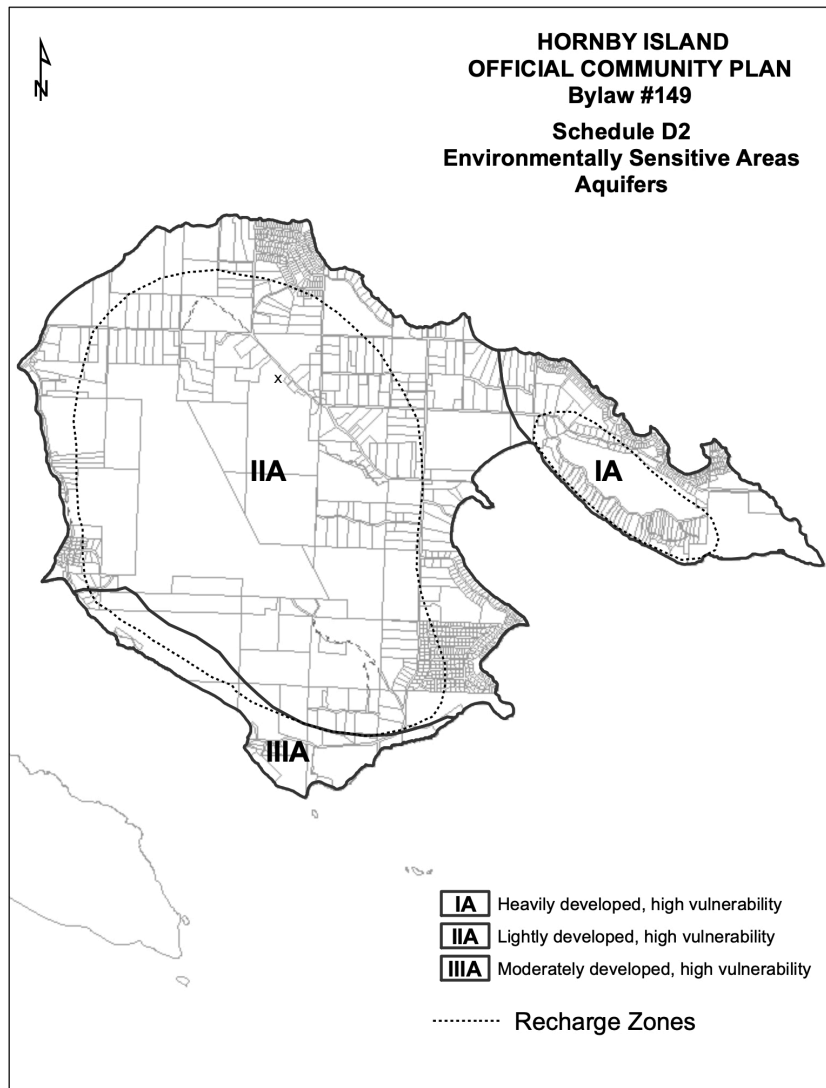
In Sierra Madre a bystander videos bee death between 2 cell towers that have multiple antenna.

MOBILE TELEPHONY RADIATION EFFECTS ON LIVING ORGANISMS (U. of Athens, Greece)

Appendix 2.

CVRD Tower Siting & Consultation Requirements

“... proponents should seek to locate Telecommunication Antenna Systems outside of... Wetlands and Ecologically sensitive lands and areas; Ecologically important parklands and parklands where migratory and resident birds are known to congregate,” and/or “Within 400 metres of ecologically sensitive lands and park spaces with significant wildlife and bird habitat values; that adversely impact view corridors.”
(x marks the proposed tower site)



Appendix 3

Hornby Island Group Letter to Rogers

Appendix 4.

Resident's rendering of tower emissions radius requiring residents' notification:



Appendix 5.

MODEL STRATEGY FOR ANTENNA SYSTEMS

Appendix 6.

Dove Creek Tower Proposal Not Granted

Vancouver Island Safe Tech Alliance is celebrating its March 7, 2023 victory, of which they report by email: “The CVRD Electoral Areas Services Committee did NOT grant a letter of concurrence for the proposed 1388 Ellenor Rd tower in Comox and attached three conditions that must be met before moving forward: 1) Telus rep Brian Gregg must consult with the K'ómoks First Nation, 2) ISED needs to meet with the CVRD, and 3) Telus is to hire a ‘Qualified Environmental Risk Assessor’. Will this permit postponement become permanent? The CVRD has recently reversed its initial decision against a 63-meter cell tower in the Cowichan Valley.