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April 10, 2014

Dear Mr. Wroblewski,

RE: Bell Mobility Proposal – 2312 North School Road

Our File W5053

Thank you for the comments/concerns you have sent us regarding the proposed installation at 2312 North School Road. FONTUR International on behalf of Bell Mobility received many comments from concerned residents residing in the Young's Point community, particularly from Katchewanooka Court. After receiving comments from all concerned neighbours, Bell Mobility and FONTUR International discussed possibilities to work with the community that would be most effective including conducting a meeting through mediation.

Before I discuss the possibilities Bell is willing to offer, I would like to discuss the site selection process and concerns regarding health and Health Canada's safety code 6.

## Site Selection and need

Radiofrequency, network and engineering issues are key constraints that must be factored into locating and designing a wireless installation. Other factors considered in the site selection criteria include:

- Land use planning considerations
  - o Sharing of existing telecommunication towers or facilities
  - o Analyzing existing rooftops or water towers
  - o Historic and environmental land use sensitivities
  - Aesthetic and landscaping preferences
  - Maximizing distance from residential and environmental protection
  - Locate sites that would obscure public views
- Interested and willing landlords
- Airport height restrictions
- Site conditions
- Soil type
- Availability of electrical power
- Ground space requirements

The proposed location was carefully selected to address Bells' coverage requirements while meeting the Township of Selwyn's requirements. The location of the tower maintains a fair distance from existing residential dwellings. Furthermore, the tower base and compound would be screened by the existing forested and treed area. The distance to the closest residential dwelling is approximately 475 metres from the tower location.

The tower is designed to structurally handle at least three carriers. Realistically, however, there are only two active carriers in this area -- Bell and Rogers. Rogers has not expressed interest in locating on this tower at this time. Bell Mobility has received clearance from Transport Canada and Navigation Canada. It has been determined that no lighting will be required on this tower.

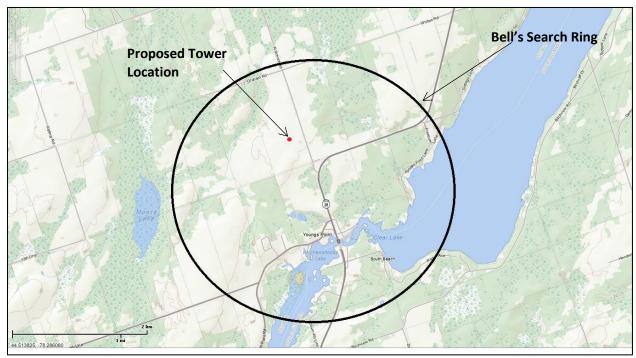


Figure 1: Search Ring- Area within which Bell must place a tower to deploy excellent coverage

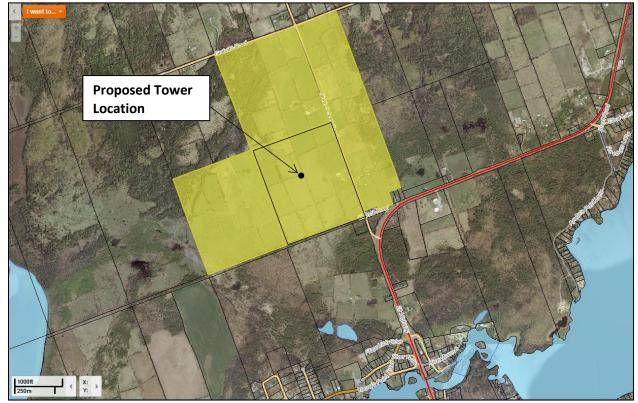


Figure 2: Selected highlighted areas are properties approached for a cell tower. The current proposed location of the tower is indicated in the map above.

The location selected is one that Bell Mobility feels best fits the criteria. Anywhere in the search ring identified in figure 1 would improve the wireless coverage, however, the locations outside those highlighted in figure 2 did not meet the criteria in one or more ways.



Figure 3: 3-dimensional model showing heavily treed area surrounding Young's Point and proposed 70 metre self-support tower.



Figure 4: 3-dimensional model showing proposed 70 metre tower screened through existing vegetation.

It is part of Industry Canada and the Land Use Authority's process to seek and add equipment onto existing structures to limit the number of towers in a given area. Unfortunately, there are no existing structures within Bell's search ring that would improve the signal.

Residents have noted that there are existing towers in the area and have asked why it's not possible to share space on those structures. The simple answer is, Bell already has equipment installed on those towers or has their own installations nearby. Based on the radiofrequency design, a 70 metre tower can only span coverage to 4-5 kilometres. Each tower has its own purpose and the purpose of this tower is to improve the signal along Highway 28 passerby traffic and to households between Deer Bay and Clear Lake.

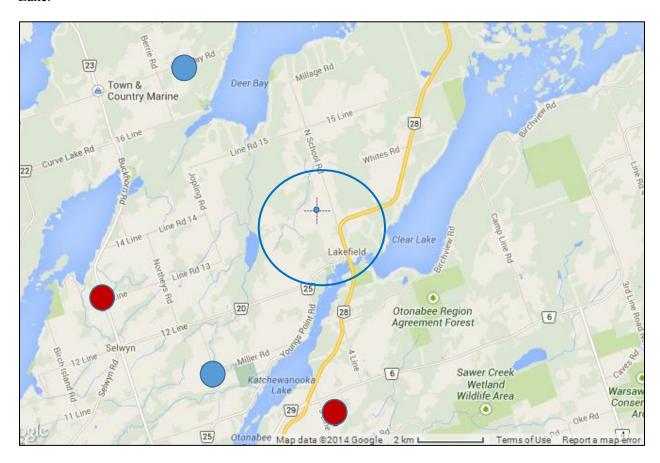


Figure 5: Existing map of cell towers in the area. Bell currently has networks installed at Deer Bay Road to the north and one on Preston Road to the south.

### Health and Safety Code 6

### Safety Code 6

You have mentioned that "the science and research into the effects of electromagnetic radiation is lagging behind the development of the technology". Safety Code 6 was first published in 1979, it was then revised in 1991, 1999, again in 2009 and scheduled for a new release in 2014. Safety Code 6 is constantly under review, and over the past 20 years has been the subject of several Royal Society of Canada (RSC) reports

and reviews. The Study reviewed over 40 years of peer reviewed research on the subject and concluded that "exposure of the public to radiofrequency fields emitted from wireless telecommunication base station transmitters is of sufficiently low intensity that biological or adverse health effects are not anticipated". The most recent review released April 2, 2014 can be found here:

 $\underline{http://rsc\text{-}src.ca/en/expert\text{-}panels/rsc\text{-}reports/review\text{-}safety\text{-}code\text{-}6\text{-}potential\text{-}health\text{-}risks\text{-}radiofrequency-fields\text{-}from}$ 

Further studies are available on the safety codes used around the world and the strict safety standards governing broadcasting. I would direct your attention to two very good centres for research on this subject; first from the World Health Organization web site:

# (http://www.who.int/peh-emf/about/WhatisEMF/en/index.html)

This site is probably one of the best in the world. It is straight forward and easy to understand. It also has a good overview of the technology and a myriad of state of the art research on the subject. It has been constantly stated that WHO has classified EMR as a possible carcinogen. However, under the same group classification of radiofrequency electromagnetic fields (Group 2B) identified by WHO includes the following agents:

- Pickled Vegetables
- Talc-based body powder
- Aloe Vera, whole leaf extract
- Coconut oil diethanolamine condensate
- Coffee
- Dry cleaning (occupational exposures in)

One of the most significant conclusions drawn from the enormous amount of research done by WHO, which can be found on the web site is as follows:

"In the area of biological effects and medical applications of non-ionizing radiation approximately 25,000 articles have been published over the past 30 years. Despite the feeling of some people that more research needs to be done, scientific knowledge in this area is now more extensive than for most chemicals. Based on a recent in-depth review of the scientific literature, the WHO concluded that current evidence does not confirm the existence of any health consequences from exposure to low level electromagnetic fields."

The second reference I would invite you to investigate is the McLaughlin Centre for Population Health Risk Assessment, Institute for Population Health, at the University of Ottawa. They are the foremost Canadian researchers in the topic EMF in Canada. They can be found on the web at

### (http://www.rfcom.ca/primer/bases.shtml).

It is a condition of Bell and any broadcasters licence that it must meet Safety Code 6. If Safety Code 6 changes after the current review then Bell must be compliant the very day it is implemented. There is not a grace period or grandfathering clause in Bell's license document. If a broadcaster cannot meet the safety code then they must shut off the transmitter. In public areas Bell is typically 10,000 times below the limit of Safety Code 6. Even if the results of the review of Safety Code 6 where to suggest the output on

broadcast be reduced 1000 times Bell would have no issue meeting the code. This kind of reduction would be unworkable for most other broadcast. A reduction of Safety Code 6 of 1000 times would make virtually every AM FM and Television station in the country non-compliant.

There is a lack of understanding regarding the amount of electro-magnetic radiation being distributed by towers of all kinds. While it is true that cell phone coverage is better than it was 10 years ago it is not because there is more power output from cell phone towers. In fact, in the past 10 years the output from most towers in Bell's network has been reduced by a factor of 10. In addition, cell phone towers in all areas throughout Ontario typically account for only a small portion of radio broadcast emissions in a given area.

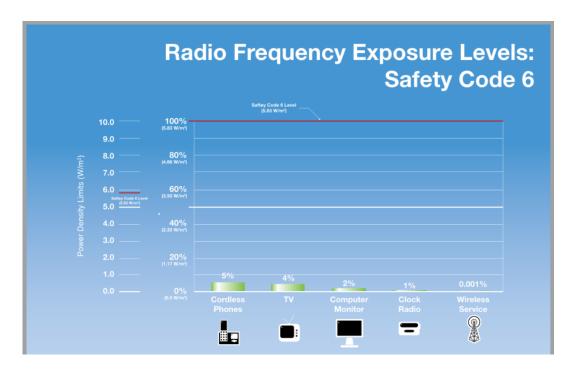


Figure 6: Comparison of electronic devices and their radio frequency exposure level in relation to Safety Code 6 levels.

As mentioned previously, there are only two active carriers in this area -- Bell and Rogers. Rogers has not expressed interest in locating on this tower at this time. However, if in the future another carrier were to co-locate, there would be no change. This is because Safety Code 6 is based on a cumulative measurement. Therefore when an additional carrier is placed on a tower the Safety Code 6 measurement is done accounting for all users on the tower cumulatively. The measurement is done based on the maximum output the equipment can produce multiplied by three (to account for the three directions the tower will broadcast). Even with a second or a third carrier on the tower the output will be several thousand times below Safety Code 6 and several million times below Safety Code 6 in any buildings in the area.

## Health

The signal from a carrier tower at a distance of thirty meters from the tower is greater than 10,000 times below this standard. By the time the signal travels inside the homes in the area around the tower the signal would be in excess of forty million (40,000,000) times below the safety code. Thus, the broadcast output from a carrier tower in a neighbourhood 30 metres away would be significantly less than a cordless phone, a baby monitor, or any FM, AM, or Television signals that are available within a neighbouring home at this present time. As mentioned above, the closest residential dwelling is 475 metres from the proposed tower location. The closest residential dwelling from Katchewanooka Court is 1.4 kilometres.

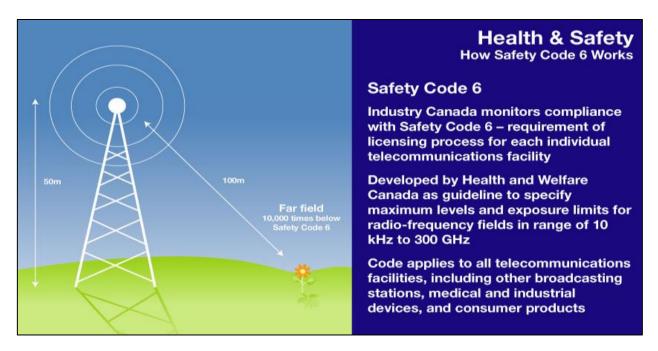


Figure 7: Due to the resistance created by the air and ambient environmental radiation, by the time the signal reaches the user, the strength has been further reduced to nanowatts (one thousand millionth of one watt). To provide comparison to this, on a bright day the energy created by the sun on surface of the earth is approximately 1 kilowatt per m<sup>2</sup> (one thousand watts).

Telecommunication towers communicate mainly through radiofrequency (RF) waves, a form of energy in the electromagnetic spectrum between FM radio waves and microwaves. Like FM radio waves, microwaves, visible light, and heat, RF waves are forms of non-ionizing radiation which cannot break the chemical bond in your DNA.

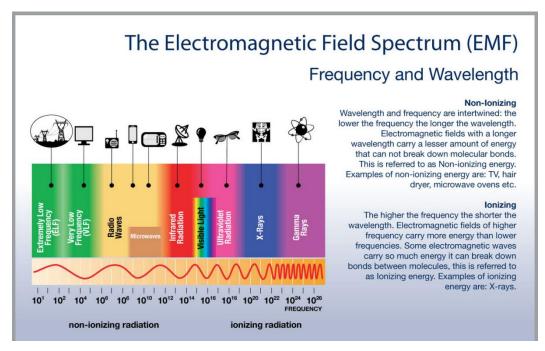


Figure 8: The electromagnetic spectrum. Cell phones and cell towers are radio waves.

There are many peer reviewed studies that have concluded that there is no evidence to prove health effects associated from radiofrequency exposure. See chart below.

Review	Conclusions
International Agency for Research on Cancer	Overall evaluation of RF fields as Group 2B
(IARC) 2013	carcinogen. The Working Group concluded: there
	is limited evidence in humans for the
	carcinogenicity of RF-EMF based on positive
	associations between glioma and acoustic neuroma
	and exposure to RF-EMF from wireless
	telephones. Environmental exposure to RF-EMF:
	no solid data.
Norwegian Institute of Public Health (NIPH) 2012	The large total number of studies provides <b>no</b>
	evidence that exposure to weak RF fields (i.e.,
	exposure within ICNIRP* reference values) causes
	adverse health effects. Some measurable
	biological/ physiological effects cannot be ruled
	out. There is no reason to recommend reduced
	exposure to RF fields to reduce general concerns
	about the hazardous effects of electromagnetic
	fields.
UK Health Protection Agency's Independent	Although a substantial amount of research has
Advisory Group on Non-Ionising Radiation	been conducted in this area, there is no convincing
(AGNIR) 2012	evidence that RF field exposure below guideline
	levels causes health effects in adults or children.

Swedish Council for Working Life and Social Research (FAS) 2012	Extensive research for more than a decade has not detected anything new regarding interaction mechanisms between RF fields and the human body and has found no evidence for health risks below current exposure guidelines.  While absolute certainty can never be achieved, nothing has appeared to suggest that the long established interaction mechanism of heating would not suffice as basis for health protection.
Health Council of the Netherlands. 2011.	More data are available, but not on effects in young children: studies were conducted almost exclusively in children over the age of 10 years. At this time, it can only be concluded that the still relatively limited available data <b>do not indicate any effects</b> on the development of the brain or on health if children are exposed to RF electromagnetic fields such as those generated by mobile telephones, mobile telecommunications antennas or Wi-Fi facilities.
Latin American Experts Committee on High Frequency Electromagnetic Fields and Human Health 2010	Current science-based evidence points to there being no adverse effects in humans below thermal thresholds, <b>no hazardous influences</b> on the wellbeing and health status of users and non-users of cell phones and people living near base stations, and that no convincing evidence for adverse cognitive, behavioral and neurophysiological and other physiological effects exist.
European Commission Scientific Committee on Emerging and Newly Identified Health Risks (SCENIHR) 2009	Three independent lines of evidence (epidemiological, animal and in vitro studies) show that exposure to RF fields is <b>unlikely to lead to an increase in cancer</b> in humans. Further studies are required to identify whether considerably longer-term (well beyond ten years) human exposure to mobile phones might pose some cancer risk.
International Commission on Non-Ionizing Radiation Protection (ICNIRP) 2009	The scientific literature published since the 1998 (ICNIRP) guidelines has provided <b>no evidence of any adverse effects</b> below the basic restrictions and does not necessitate an immediate revision of the guidance on limiting exposure to high frequency electromagnetic fields.
Royal Society of Canada (RSC) 2014	No clear evidence of adverse health effects associated with RF fields, although continued research is recommended to address specific areas of concern, including exposure to RF fields among children using mobile phones.
Forschungszentrum Jülich GmbH Institute of Neuroscience and Medicine (INM) 2009	The balance of evidence does not indicate an evaluated risk of RF EMF exposure for children's health.

Table 1: List of world recognized institutions that have concluded no evidence of health risks associated with low electromagnetic frequencies.

The notion that the exposure from radiofrequency is not a risk to health has been supported by Industry Canada, Health Canada, The World Health Organization, the Ireland Expert Group on Health Effects of Electromagnetic Fields, the European Commission, the United States National Research Council Expert

Panel, the Royal Society of Canada and the Committee on Man and Radiation. The combined authoritative reviews of these groups have concluded that there is no compelling body of evidence of adverse health effects associated with electromagnetic radiation at levels below the Safety Code 6 limit.

In terms of the varying standards across the globe, it is often mentioned that Canada is lagging behind international standards. The fact is these jurisdictions measure exposure at different time frames than those of Safety Code 6. Safety Code 6 is measured on 6 minute intervals where most of these other jurisdictions use longer time frames but lower emissions. Safety Code 6 is measured on higher emissions for shorter time frames. In addition, other jurisdictions differ from North America on what is a public area and what is not (Safety Code 6 is measured from public areas). In Canada, public areas for measurement are much more broadly defined than in these jurisdictions.

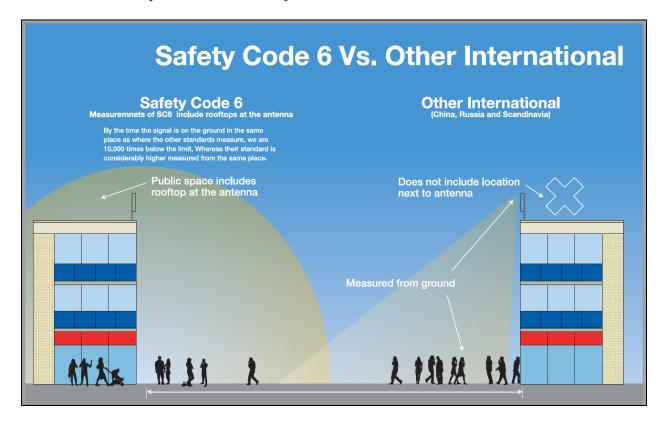


Figure 9: Difference between safety code 6 measurements from international standards. Both have different methods of measurement but are very similar.

In an effort to work with the public, Bell Mobility understands that the Young's Point community would like to be informed and involved in making the decision for a suitable tower location for Bell Mobility. After reviewing the comments received from the public, Bell Mobility would like to move forward with a positive approach by offering the following conditions.

### **Conditions**

- 1. Bell would pay for the services of a mediator to work out a written agreement between Bell and the residents (if one could be made).
- 2. The residents, who wish to, can participate in the mediation or they can choose to have one of their neighbors act on their behalf.

- 3. The agreement would be enforced by way of a written document between the participants.
- 4. Some of the points of a potential agreement would be:
  - **a.** The provision of a height restriction on the tower.
  - **b.** The agreement would run concurrent with the 20 year lease on the property and if the lease agreement was renewed the agreement would renew with it.
  - **c.** On-going monitoring and yearly reporting on the output on the tower.
  - d. A provision that no one other than possibly Rogers, and possibly the Township of Selwyn for fire and EMS dispatching purposes if there was an identified gap in dispatching service, would be allowed to co-locate equipment on the tower.
  - e. The production of photo simulations from any residents wanting to know what the tower looks like from their property. Efforts would be made to reposition the tower on the existing property to screen/minimize any sight-lines to the tower as a result of the photo simulations.
  - f. The exploration of reducing the height of the tower (if possible to be determined by Bell Radio Frequency Engineering) or the tower type to screen/minimize any sight-lines to the tower.
  - g. Bell to provide an independent review of Bell's Safety Code Six study that has been produced by Bell in order to receive its License from Industry Canada. The independent Radio Frequency study would measure current and predicted output from the tower and Bell would make these studies available to the public.
  - **h**. A commitment from Bell for a ceiling on the output from the tower in the area.

I hope the information provided to you is helpful in understanding Bell's proposal.

Sincerely,

Shehryar Khan

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FONTUR International Inc.

On contract to Bell Mobility