

**SUBMISSION TO LANGLEY SCHOOL DISTRICT #35  
BOARD MEETING MAY 19, 2009  
LANGLEY SCHOOL BOARD OFFICES  
4875 – 222<sup>nd</sup> Street, Langley, B.C.**

Cheryle Beaumont, Superintendent  
Charlie Etchell, Assistant Superintendent  
Grant Lenarduzzi, Assistant Superintendent  
Joan Bech, Chair, School Trustee  
Alison McVeigh, School Trustee  
Rob McFarlane, School Trustee  
Stacey Cody, School Trustee  
Steve Burton, School Trustee  
Wendy Johnson, School Trustee  
Rod Ross, School Trustee  
Balan Moorthy, Principal, LFAS  
Ron Stare, Vice- Principal, LFAS  
Brian Out, Vice-Principal, LFAS

Dear Sirs/Mesdames:

Re: Protecting Children from Potentially Harmful Effects of  
Radiofrequency Microwave Radiation (Wi-Fi) in the Public School Setting

This submission will present evidence of the following:

No Consensus of the Scientific Community

- A. That there is no consensus of the scientific community as stated in the subject documents with regard to the public health protection guidelines set forth in the Health Canada Safety Code 6 and World Health Organization policies governing what could be determined as safe public exposure to radiofrequency microwave radiation. This lack of scientific community consensus renders Safety Code 6 and WHO guidelines outdated and incorrect, and as such cannot be used as a basis for assumption of safety in the installation of wireless technologies (Wi-Fi, WLAN) in public schools.

### Violation of Equal Access Policy

- B. That Langley School District's policy of Equal Access to students would be violated by installing such wireless technologies given the growing numbers in the general population evidencing Electromagnetic Sensitivity and Electrohypersensitivity.

### Special Vulnerability of Children

- C. That children are more vulnerable to harm from known and unknown aspects of biological activity caused by radiofrequency microwave radiation. Children, by reason of their physical and mental immaturity, need special safeguard and care. A profound urgency exists to protect children from potential ill health effects of wireless technologies.

### No Informed Consent

- D. The Langley School Board needs to ask parents for their informed consent to the exposure of their children to non-thermal non-ionizing radiation (RF/MW) commonly associated with wireless technologies (Wi-Fi, WLAN) which are in the same exposure range as cell phones. There must be no censorship and no barriers to access or any attempt to control public opinion. It would be improper, if not unethical, for our education system to be handing out yes or no questionnaires concerning Wi-Fi without informing the public of the substantial scientific and medical literature which demonstrates harm.

### Precautionary Principle

- E. The case for enacting the Precautionary Principle is justified given the current scientific controversy surrounding potential of harm from exposure to radiofrequency microwave radiation, and the calls for more studies and research into the biological effects of non-ionizing radiation as a potential threat to human health. This would be evidenced by Langley School Board choosing hard wiring of new computer installations instead of installing questionable wireless internet technology.

### Questions of Liability

- F. That Langley School District No. 35 cannot assume nor give any assurance of safety with regard to children being exposed to radiofrequency microwave radiation in their public schools through installation of wireless internet (Wi-Fi). Proceeding with installations of wireless technologies at a time in history when individuals, organizations and governments are heeding the calls for caution, especially around children, may expose Langley School District, and its employees, to hitherto unsuspected liability issues

## PREAMBLE

“Global exposures to emerging wireless technologies from applications including mobile phones, cordless phones, DECT phones, WI-FI, WLAN, WiMAX, wireless internet, and others may present serious public health consequences. Evidence supporting a public health risk is documented in the BioInitiative Report. New, biologically based public exposure standards for chronic exposure to low-intensity exposures are warranted. Existing safety standards are obsolete because they are based solely on thermal effects from acute exposures. The rapidly expanding development of new wireless technologies and the long latency for the development of such serious diseases as brain cancers means that failure to take immediate action to reduce risks may result in an epidemic of potentially fatal diseases in the future. Regardless of whether or not the associations are causal, the strengths of the associations are sufficiently strong that in the opinion of the authors, taking action to reduce exposures is imperative, especially for the fetus and children. Such action is fully compatible with the precautionary principle, as enunciated by the Rio Declaration, the European Constitution Principle on Health (Section 3.1) and the European Union Treaties Article 174.”

PMID: 19285839 [PubMed - as supplied by publisher – March 12 2009 – Public Health Implications of Wireless Technologies – Pathophysiology Carpenter/Sage  
David O. Carpenter, MD, Director, Institute for Health and the Environment, University at Albany East Campus Rensselaer, NY USA and Cindy Sage, MA, Owner, Full Member. Bioelectromagnetics Society, Sage Associates, Santa Barbara, CA USA

The Principal of Langley Fine Arts School has advised us that his employer, the Langley School Board, intends to deploy wireless internet at Langley Fine Arts School. We have been told that parents cannot stop this wireless internet and that no informed consent process is required from parents before this technology is implemented. We as parents and concerned citizens of Canada, have spent the last four years researching this issue, and do not give our informed consent for our children to be exposed to wireless technology (Wi-Fi) within the school setting.

## No Consensus of the Scientific Community

- A. That there is no consensus of the scientific community as stated in the subject documents with regard to the public health protection guidelines set forth in the Health Canada Safety Code 6 and World Health Organization policies governing what could be determined as safe public exposure to radiofrequency microwave radiation. This lack of scientific community consensus renders Safety Code 6 and WHO guidelines outdated and incorrect, and as such cannot be used as a basis for assumption of safety in the installation of wireless technologies (Wi-Fi, WLAN) in public schools.

In its introduction, Health Canada's Safety Code 6 states:

*"The limits recommended in this Code have been set at least a factor of 10 lower than the threshold where potentially harmful effects begin, as judged by a consensus of the scientific community."* (emphasis added by writer)

This statement is outdated and incorrect as there is no consensus of the scientific community on this issue. Neither Safety Code 6 nor WHO policy reflects the current state of scientific knowledge of bioeffects and health effects of non-ionizing radiation. Arguments that weak (low intensity) EMF cannot affect biological systems do not represent the current spectrum of scientific opinion.

Members of the scientific community who have provided written evidence of their disagreement with current safety regulations, including Safety Code 6 and WHO, and who have stated that the current regulations are inadequate for the protection of public health, are detailed below.

#### **The London Resolution, May 2009**

Signed by 10 members of the Scientific Community

"We, the undersigned, do call on the UK Health Protection Agency (HPA), UK Government and all the health protection agencies and governments world-wide, to take note of the findings and recommendations...to immediately reduce the guidelines for exposure to radiofrequency radiation (RF) and extremely low-frequency electromagnetic fields (ELF-EMF) for the following reasons:

The overwhelming evidence of adverse non-thermal health effects at exposures many times below the current guidelines.

The vast proliferation of wireless networks and devices beyond those envisaged at the time the current guidelines were set."

"We call for the ICNIRP to reconvene as a matter of urgency to reassess the exposure guidelines and to develop and implement biologically based public safety limits reflecting the overall scientific evidence that existing ICNIRP guidelines are not sufficiently protective against health effects from chronic exposures to the rapidly increasing environmental-level ELF-EMF and RF."

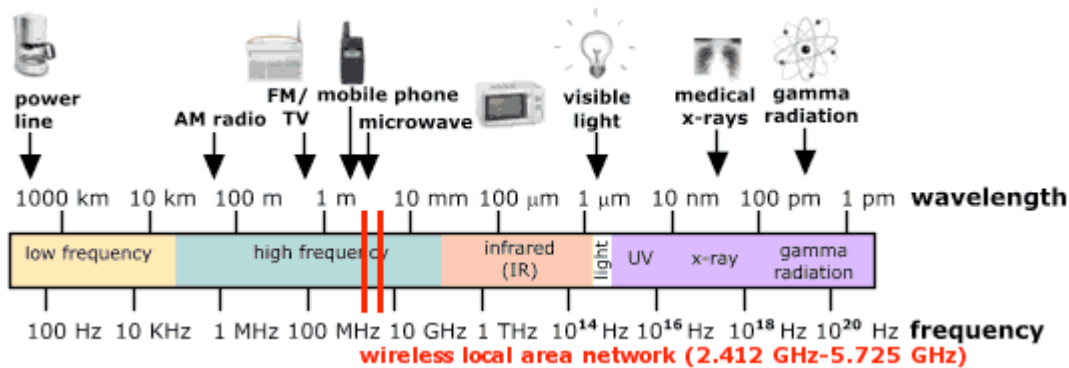
**Advice from University of Pittsburgh Cancer Institute Based on Advice from an  
23 International Experts in the Scientific Community**

The Case for Precaution in the Use of Cell Phones

“Electromagnetic fields generated by cell phones should be considered a potential human health risk. Sufficient time has not elapsed in order for us to have conclusive data on the biological effects of cell phones and other cordless phones — a technology that is now universal.”

\*Note that cellular phone studies are included due to the fact that wireless technologies such as Wi-Fi, WLAN, fall in same exposure range as cellphones.

Exposure source view for: wireless local area network  
or: Wi-Fi, WLAN, Wireless LAN, W-LAN



**University of Pittsburgh Cancer Institute (UPCI)  
Internal Memo to Faculty and Staff from Ronald B. Herberman, MD, July 2008**

Ronald B. Herberman, MD, the first director of the University of Pittsburgh Cancer Institute, a National Cancer Institute (NCI)-designated Comprehensive Cancer Center, is an internationally recognized tumor immunologist who has made major discoveries in his field and has fostered the application of this information to novel approaches to cancer therapy. Dr. Herberman also is associate vice chancellor for cancer research, Health Sciences, Hillman professor of oncology and professor of medicine at the University of Pittsburgh School of Medicine.

“Recently I have become aware of the growing body of literature linking long-term cell phone use to possible adverse health effects including cancer. Although the evidence is still controversial, I am convinced that there are sufficient data to warrant issuing an advisory to share some precautionary advice on cell phone use.

An international expert panel of pathologists, oncologists and public health specialists recently declared that electromagnetic fields emitted by cell phones should be considered a potential human health risk. To date, a number of countries including France, Germany and India have issued recommendations that exposure to electromagnetic fields should be limited. In addition, Toronto's Department of Public Health is advising teenagers and young children to limit their use of cell phones, to avoid potential health risks.

More definitive data that cover the health effects from prolonged cell phone use have been compiled by the World Health Organization, International Agency for Research on Cancer. However, publication has been delayed for two years. In anticipation of release of the WHO report, the following prudent and simple precautions, intended to promote precautionary efforts to reduce exposures to cell phone electromagnetic radiation, have been reviewed by UPCI experts in neuro-oncology, epidemiology, neurosurgery and the Center for Environmental Oncology.

#### Practical Advice to Limit Exposure to Electromagnetic Radiation Emitted from Cell Phones

1. Do not allow children to use a cell phone, except for emergencies. The developing organs of a fetus or child are the most likely to be sensitive to any possible effects of exposure to electromagnetic fields.

\*Note that cellular phone studies are included due to the fact that wireless technologies such as Wi-Fi, WLAN, fall in same exposure range as cellphones.

#### **University of Pittsburgh Cancer Institute, Center for Environmental Oncology**

Excerpts from "Electromagnetic Fields and Our Health" – November 20, 2008

"The developing organs of a fetus or a child are the most sensitive to any possible effects of exposure to electromagnetic fields. A child's brain doubles in the first years of life. Studies by expert engineers show that the electromagnetic field reaches much more deeply into a child's brain than an adult's."

"In addition to direct genetic damage, studies have shown that cancer genes can be affected by factors that have nothing to do with DNA. There is growing evidence that chemicals and physical agents such as electromagnetic fields can also affect the chances that cancer will occur either by damaging the capacity of the immune system to fend off damage or through some other path that damages the proteins that usually keep our bodies in balance."

"The data on cell phone use and cancer is incomplete and inconsistent at this moment, but some studies do show that cell phone radiation has the capacity to disturb normal cells and the cell phone industries own studies show that the cell signal is absorbed deeply into the brains of children, and up to 2 inches into an adult skull. Some studies of

populations that have used cell phones for longer periods of time have found some increased risk of serious brain tumors, while others have not. More research is needed to determine if cell phones cause cancer and, if it does, exactly how this happens. But, because brain tumors can take several decades to arise, the absence of conclusive evidence at this time should not be misconstrued as proof that there is no problem.”

“At this time, we can not say definitively whether cell phones are safe or not. However, a growing body of evidence, from countries where phones have been used for a long time, suggests that decade-long use of cell phones may increase the risk of developing serious health problems like cancer.”

“Many of the negative studies on this topic have design flaws that underestimate the risk. For example, an often cited Danish study started out with 700,000 cell phone users and excluded more than 200,000 who used cell phones for business purposes. Business persons are much more likely to be heavy users of cell phones. This same study defined someone as a "regular cell phone user" when he or she only uses the phone one time a week for six months. It is important to include all users, especially long-term and heavy users of cell phones, to obtain the best possible data. Moreover, most of the negative studies did not adjust for the use of cordless phones, which emit radiofrequency signals, and are commonly used.”

“In general, most of the studies do not have a sufficient study period to evaluate the risk for long-term cell phone uses.”

“Wi-Fi and cell towers are so prevalent in urban, suburban, and rural areas it is nearly impossible for someone to avoid exposure to electromagnetic radiation. Additional research on our exposures from these sources is also needed.”

\*Note that cellular phone studies are included due to the fact that wireless technologies such as Wi-Fi, WLAN, fall in same exposure range as cellphones.

### **BioInitiative Report 2007**

This report has been written by 14 (fourteen) scientists who are all members of the Scientific Community, as well as public health and public policy experts to document the scientific evidence on electromagnetic fields. Another dozen outside reviewers have looked at and refined the Report.

“The existing ICNIRP and FCC limits for public and occupational exposure to ELF and RF are insufficiently protective of public health”

“Biologically-based public and occupational exposure standards for extra-low frequency and radiofrequency radiation are recommended to address bioeffects and potential adverse health effects of chronic exposure to ELF and RF. These effects are now widely reported to occur at exposure levels significantly below most current national and international limits.”

“A biologically-based exposure limit should reflect current scientific knowledge of bioeffects and health effects, and impose new limits based on preventative action as defined by the Precautionary Principle (EEA, 2001)”

“Biologically-based exposure standards shall be protective against exposures levels of ELF and RF that affect or change normal biological functioning of organisms (humans). They shall not be based solely on energy absorption or thermal levels of energy input, or resulting tissue heating. They shall be protective against chronic exposure responses.”

“The existing standards are based on thermal (heating) limits, and do not address non-thermal (or low-intensity) exposures which are widely reported to cause bioeffects, some likely leading to adverse health effects with chronic exposure.”

“Biologically-based exposure standards are needed to prevent disruption of normal body processes.”

“Plausible biological mechanisms that can account for genotoxicity (DNA damage) are already well known (oxidative damage via free-radical actions) although it should also be said that there is not yet proof. *However, proof of mechanism is not required to set prudent public health policy, nor is it mandatory to set new guidelines or limits if adverse health effects occur at lower than existing IEEE and ICNIRP standards.*”

“The standard for taking action should be precautionary; action should not be deferred while waiting for final proof or causal evidence to be established that EMF is harmful to health and well-being.”

“ No positive assertion of safety can be made by governments that continue to support and enforce exposure limits for RF and ELF based on ICNIRP or IEEE criteria (or the equivalent). Governments that are considering proposals to relax existing RF and ELF standards should reject these proposals given the weight of scientific evidence that is available; and the clear disconnect between existing public safety limits and their responsibility to provide safe and healthful living environments for all segments of affected populations.”

**The Venice Resolution, International Commission for Electromagnetic Safety, December 17, 2007**

Signed by 46 International Expert Members of the Scientific Community

“The non-ionizing radiation protection standards recommended by international standards organizations, and supported by the World Health Organization, are inadequate. Existing guidelines are based on results from acute exposure studies and only thermal effects are considered. A world wide application of the Precautionary Principle is required. In addition, new standards should be developed to take various physiological conditions into consideration, e.g., pregnancy, newborns, children, and elderly people.”

“We take exception to the claim of the wireless communication industry that there is no credible scientific evidence to conclude there is a risk. Recent epidemiological evidence is stronger than before, which is a further reason to justify precautions be taken to lower exposure standards in accordance with the Precautionary Principle.”

### **Benevento Resolution, September 2006**

Signed by 32 members of the scientific community

“More evidence has accumulated suggesting that there are adverse health effects from occupational and public exposures to electric, magnetic and electromagnetic fields, or EMF10, at current exposure levels. What is needed, but not yet realized, is a comprehensive, independent and transparent examination of the evidence pointing to this emerging, potential public health issue.”

“Arguments that weak (low intensity) EMF cannot affect biological systems do not represent the current spectrum of scientific opinion.”

“Based on our review of the science, biological effects can occur from exposures to both extremely low frequency fields (ELF EMF) and radiation frequency fields (RF EMF). Epidemiological and *in vivo* as well as *in vitro* experimental evidence demonstrates that exposure to some ELF EMF can increase cancer risk in children and induce other health problems in both children and adults. Further, there is accumulating epidemiological evidence indicating an increased brain tumor risk from long term use of mobile phones, the first RF EMF that has started to be comprehensively studied. Epidemiological and laboratory studies that show increased risks for cancers and other diseases from occupational exposures to EMF cannot be ignored. Laboratory studies on cancers and other diseases have reported that hypersensitivity to EMF may be due in part to a genetic predisposition.”

\*Note that cellular phone studies are included due to the fact that wireless technologies such as Wi-Fi, WLAN, fall in same exposure range as cellphones.

### **Helsinki Appeal (Finland) 2005**

“New applications of wireless technologies are continually being introduced, regardless of the fact that there are plenty of qualified scientific reports reporting possible health risks.”

“The present safety standards of ICNIRP do not recognize the biological effects caused by non-ionizing radiation except those induced by the thermal effect. In the light of recent scientific information, the standards recommended by ICNIRP have become obsolete and should be rejected. Especially children and other persons at risk should be taken into account when re-evaluating limits.”

### **Freiburger Appeal (Germany) October 2002**

Signed by over 3,000 German doctors and medical professionals

“...we can see especially after carefully-directed inquiry a clear temporal and spatial correlation between the appearance of disease and exposure to pulsed high-frequency microwave radiation (HFMR)..”

On the basis of our daily experiences, we hold the current mobile communications technology (introduced in 1992 and since then globally extensive) and cordless digital telephones (DECT standard) to be among the fundamental triggers for this fatal development. One can no longer evade these pulsed microwaves. They heighten the risk of already-present chemical/physical influences, stress the body’s immune system, and can bring the body’s still-functioning regulatory mechanisms to a halt. Pregnant women, children, adolescents, elderly and sick people are especially at risk.

### **Catania Resolution, September 2002**

Signed by 16 members of the Scientific Community

“We take exception to arguments that weak (low intensity) EMF cannot interact with tissue.”

“ There are plausible mechanistic explanations for EMF-induced effects, which occur below present ICNIRP and IEEE guidelines and exposure recommendations by the EU.”

### **Irish Doctors’ Environmental Association – Position Paper on EMR**

“The safe levels currently advised for exposure to this non-ionizing radiation are based solely on its thermal effects. However, it is clear that this radiation also has non-thermal effects, which need to be taken into consideration when setting these safe levels.”

“The current safe levels for exposure to microwave radiation were determined based solely on the thermal effects of this radiation. There is now a large body of evidence that clearly shows that this is not appropriate, as many of the effects of this type of radiation are not related to these thermal effects.”

### **WHO Criticized for Neglecting Evidence – May 7, 2007**

A study published in the medical journal “The Lancet” by Dr. Andrew Oxman and Dr. Atle Fretheim of the Norwegian Knowledge Centre for Health Services and Dr. John Lavis at McMaster University in Canada criticizes the World Health Organization’s guidelines as being missing key evidence when developing guidelines.

“WHO’s Director of Research Policy Dr. Tikki Pang ...acknowledged the criticism had merit, and explained that time pressures and a lack of both information and money sometimes compromised WHO work.” – news excerpt

## **Estimating the risk of brain tumors from cellphone use: Published case-control studies – Pathophysiology – Lloyd Morgan**

### Abstract

This paper reviews the results of early cellphone studies, where exposure duration was too short to expect tumorigenesis, as well as two sets of more recent studies with longer exposure duration: the Interphone studies and the Swedish studies led by Dr. Lennart Hardell. The recent studies reach very different conclusions. With four exceptions the industry-funded Interphone studies found no increased risk of brain tumors from cellphone use, while the Swedish studies, independent of industry funding, reported numerous findings of significant increased brain tumor risk from cellphone and cordless phone use. An analysis of the data from the Interphone studies suggests that either the use of a cellphone protects the user from a brain tumor, or the studies had serious design flaws. Eleven flaws are identified: (1) selection bias, (2) insufficient latency time, (3) definition of 'regular' cellphone user, (4) exclusion of young adults and children, (5) brain tumor risk from cellphones radiating higher power levels in rural areas were not investigated, (6) exposure to other transmitting sources are excluded, (7) exclusion of brain tumor types, (8) tumors outside the cellphone radiation plume are treated as exposed, (9) exclusion of brain tumor cases because of death or illness, (10) recall accuracy of cellphone use, and (11) funding bias. The Interphone studies have all 11 flaws, and the Swedish studies have 3 flaws (8, 9 and 10). The data from the Swedish studies are consistent with what would be expected if cellphone use were a risk for brain tumors, while the Interphone studies data are incredulous. If a risk does exist, the public health cost will be large. These are the circumstances where application of the Precautionary Principle is indicated, especially if low-cost options could reduce the absorbed cellphone radiation by several orders of magnitude.

PMID: 19356911 [PubMed - as supplied by publisher]

Lloyd Morgan is an electronic engineer by training, a Director of the Central Brain Tumor Registry of the United States, a member of the international science group, the Bioelectromagnetics Society and a volunteer with the National Brain Tumour Foundation

### Summary

The preamble to Health Canada's Safety Code 6 includes the following statement:

*“In a field where technology is advancing rapidly, and where unexpected and unique problems may occur, this Code cannot cover all possible situations and blind adherence to rules cannot substitute for the exercise of sound judgement. Consequently, specifications and recommendations in this Code may require some modifications under certain circumstances.”*

Safety Code 6 further states: *“Biological effects of RF fields at levels too low to produce significant heating have also been reviewed. These effects are not well established, nor are their implications for human health sufficiently well understood. Thus, they cannot provide a basis for making recommendation towards the restriction of human exposures*

*to such low-intensity RF fields.”* Note that Safety Code 6 has not been updated since 1999.

It is obvious there is no consensus in the scientific community and a unique problem has occurred where worldwide disagreement has erupted between scientists as to what constitutes proper protection of the public, with special emphasis on the vulnerabilities of children, pregnant women, elderly and sick. The calls from the scientific community to do more research and update outdated public health guidelines is constant and strong, as well as urgent recommendations to enact the Precautionary Principle with regard to RF/MW exposure. There is also supported opinions that guidelines are being written without considering all the evidence and research necessary. The Langley School Board needs to exercise its sound judgement and call a moratorium to wireless installations (Wi-Fi) until the safety regulations are updated and modified to reflect the current spectrum of scientific knowledge and there is again a consensus of safety within the scientific community with regards to the safety of public health when exposed to RF/MR within non-thermal ranges.

### **Violation of Equal Access Policy**

- B. That Langley School District’s policy of Equal Access to students would be violated by installing such wireless technologies given the growing numbers in the general population evidencing Electromagnetic Sensitivity and Electrohypersensitivity.

---

Langley School District has an admirable “equal access policy” for all its public schools. Implementation of wireless technologies in schools would limit equal access due to the estimated 3% to 10% of the population who are sensitive to microwave radiation, also known as electro-hyper-sensitivity or electromagnetic sensitivity.

Safety Code 6 makes allowance for those in the population more sensitive to radiofrequency microwave radiation as follows:

*“ Certain members of the general public may be more susceptible to harm from RF and microwave exposure.”*

Although Health Canada recognizes members of the public may be harmed by RF/MW exposure, they have yet to modify their guidelines to support this growing disability in our communities.

World Health Organization recognizes EHS as

*“ . . . a phenomenon where individuals experience adverse health effects while using or being in the vicinity of devices emanating electric, magnetic, or electromagnetic fields (EMFs). . . . EHS is a real and sometimes a debilitating problem for the affected persons, while the level of EMF in their neighborhood is no greater than is encountered in normal living environments. **Their exposures are generally several orders of magnitude under the limits in internationally accepted standards.**”* (emphasis added by writer).

EHS is further recognized by different medical and scientific groups as follows:

1. Sweden

Sweden recognizes electromagnetic sensitivity (EMS) and/or electrohypersensitivity (EHS) as a disability and provides support and disability compensation for the members of its population so affected.

2. Americans with Disabilities Act

Electromagnetic Sensitivity is recognized in the United States by the Americans with Disabilities Act, as well as the US Access Board, and numerous commissions.

3. Irish Doctors' Environmental Association

“IDEA” recognizes this condition as follows:

“The electro-sensitivity experienced by some people results in a variety of distressing symptoms which must also be taken into account when setting safe levels for exposure to non-ionizing radiation. . . .” and

“ An increasing number of people in Ireland are complaining of symptoms which, while they may vary in nature, intensity and duration, can be demonstrated to be clearly related to exposure to electro-magnetic radiation (EMR).”

4. Scientific Community

The scientific community recognizes EHS and EMS as stated below:

“We recognize the growing public health problem known as electrohypersensitivity; that this adverse health condition can be quite disabling; and that this condition requires further urgent investigation and recognition.” - Venice Resolution, December 17, 2007

“Laboratory studies on cancers and other diseases have reported that hypersensitivity to EMF may be due in part to a genetic predisposition.”

- Benevento Resolution September 2006

“Biological effects may include both potential adverse health effects and loss of homeostasis and well-being.” – BioInitiative Report 2007

5. Freiburger Appeal

German doctors recognize this condition as set forth in the Freiburger Appeal, now signed by more than 3,000 medical doctors, as follows:

“...we can see especially after carefully-directed inquiry a clear temporal and spatial correlation between the appearance of disease and exposure to pulsed high-frequency microwave radiation (HFMR).”

“On the basis of our daily experiences, we hold the current mobile communications technology (introduced in 1992 and since then globally extensive) and cordless digital telephones (DECT standard) to be among the fundamental triggers for this fatal development. One can no longer evade these pulsed microwaves. They heighten the risk of already-present chemical/physical influences, stress the body’s immune system, and can bring the body’s still-functioning regulatory mechanisms to a halt. Pregnant women, children, adolescents, elderly and sick people are especially at risk.”

6. The States of Colorado, Connecticut and Florida have proclaimed May 2009 “Electromagnetic Sensitivity Month” as follows:

“WHEREAS people of all ages in (Colorado,Connecticut,Florida) and throughout the world have developed the illness of Electromagnetic Sensitivity (EMS) as a result of global electromagnetic pollution; and”

“WHEREAS the symptoms of EMS include dermal changes, acute numbness and tingling, dermatitis, flushing, headaches, arrhythmia, muscular weakness, tinnitus, malaise, gastric problems, nausea, visual disturbances, severe neurological, respiratory, speech problems and numerous other physiological symptoms; and”

“WHEREAS this illness may be preventable through the reduction or avoidance of electromagnetic radiations, in both indoor and outdoor environments and by conducting further scientific research;”

7. Dr. Olle Johansson, Assoc. Prof. Department of Neuroscience, Karolinska Institute, Sweden, in his paper “Disturbance of the immune system by electromagnetic fields” states:

“The functional impairment electrohypersensitivity is reported by individuals in the United States, Sweden, Switzerland, Germany, Belgium, Italy, The Netherlands,

Norway, Denmark and many other countries of the world. Estimates range from 3% to perhaps 10% of populations, and appear to be a growing condition of ill-health leading to lost work and productivity.”

## Summary

Given the growing recognition from international scientific and medical communities, agencies supporting those with disabilities, as well as individual US States, it would appear reasonable for Langley School District to be prepared to recognize EMS and/or EHS as a potential concern for a percentage of all school populations, children as well as teachers and administrators. The current estimates for those with this disabling condition is 3% to 10% of the population, although some medical and scientific experts consider it to be much higher. This is a global issue and appears to be growing, and may be preventable through the reduction or avoidance of electromagnetic radiation. In a school of 1,000 individuals where there was regular and involuntary exposure to radiofrequency microwave radiation in the form of wireless internet (Wi-Fi), at current sensitivity estimates it could be expected that between 30 to 100 of those persons would experience some symptoms associated with EHS and/or EMS, which could thereby seriously affect and most probably limit their equal access to education at such school.

## Vulnerability of Children

- C. That children are more vulnerable to potential for harm from known and unknown aspects of biological activity caused by radiofrequency microwave radiation. Children, by reason of their physical and mental immaturity, need special safeguard and care.

---

## Declaration of the Rights of the Child, Office of the High Commissioner for Human Rights, November 1959

“Whereas the child, by reason of his physical and mental immaturity, needs special safeguards and care, including appropriate legal protection, before as well as after birth,”

“Whereas the need for special safeguards has been stated in the Geneva Declaration of the Rights of the Child of 1924, and recognized in the Universal Declaration of Human Rights and in the statutes of specialized agencies and international organizations concerned with the welfare of children,”

“Whereas mankind owes to the child the best it has to give,”

“Principle 2

The child shall enjoy special protection, and shall be given opportunities and facilities, by law and by other means, to enable him to develop physically, mentally, morally, spiritually and socially in a healthy and normal manner and in conditions of freedom and dignity. In the enactment of laws for this purpose, the best interests of the child shall be the paramount consideration.”

“Principle 8

The child shall in all circumstances be among the first to receive protection and relief.

Principle 9

The child shall be protected against all forms of neglect, cruelty and exploitation.”

### **BioInitiative Report 2007**

“The consequence of prolonged exposures to children, whose nervous systems continue to develop until late adolescence, is unknown at this time. This could have serious implications to adult health and functioning in society if years of exposure of the young to both ELF and RF result in diminished capacity for thinking, judgment, memory, learning, and control over behavior.”

“We also recommend that wired alternatives to WI-FI be implemented, particularly in schools and libraries so that children are not subjected to elevated RF levels until more is understood about possible health impacts. This recommendation should be seen as an interim precautionary limit that is intended to guide preventative actions; and more conservative limits may be needed in the future.”

“Manufacturers of devices that operate with wireless features should be required to carry SAR level information and warning labels on the outside packaging (not hidden inside). Wireless devices that create elevated RF levels for the user should be required to warn the user of possible adverse effects on memory and learning, cognitive function, sleep disruption and insomnia, mood disorders, balance, headache, fatigue, ringing in the ears (tinnitus), immune function, and other adverse symptoms of use.”

### **Russian National Committee on Non-Ionizing Radiation Protection – April 2008**

“ Children and Mobile Phones: The Health of the Following Generations is in Danger”

“The members of the Russian National Committee on Non-Ionizing Radiation Protection emphasize ultimate urgency to defend children’s health from the influence of the EMF of the mobile communication systems. We appeal to the government authorities, to the entire society to pay closest attention to this coming threat and to take adequate measures in order to prevent negative consequence to the future generation’s health.”

### **University of Pittsburgh Cancer Institute, Center for Environmental Oncology**

Excerpts from “Electromagnetic Fields and Our Health” – November 20, 2008

“The developing organs of a fetus or a child are the most sensitive to any possible effects of exposure to electromagnetic fields. A child’s brain doubles in the first years of life. Studies by expert engineers show that the electromagnetic field reaches much more deeply into a child’s brain than an adult’s.”

### **London Resolution, April, 2009**

“Based on the precautionary principle, children and vulnerable groups (such as people with epilepsy and heart conditions) should not be exposed to a risk of harm, thus we propose that

- Children under 16 should use mobile phones and cordless phones for emergency calls only.
- No Wi-Fi, WiMax or other forms of wireless networking are placed in homes, schools or public areas or promoted for use thereof.
- The precautionary principle needs to be implemented.”

### **Advice from University of Pittsburgh Cancer Institute Endorsed by 23 International Experts in the Scientific Community**

#### The Case for Precaution in the Use of Cell Phones

“Electromagnetic fields generated by cell phones should be considered a potential human health risk. Sufficient time has not elapsed in order for us to have conclusive data on the biological effects of cell phones and other cordless phones — a technology that is now universal.”

“Electromagnetic fields are likely to penetrate the brain more deeply for children than for adults. Modeling in the diagram below estimates that young children are more susceptible to electromagnetic fields due to smaller sized brains and softer brain tissue.”

“Living tissue is vulnerable to electromagnetic fields within the frequency bands used by cell phones (from 800 to 2200 MHz) even below the threshold of power imposed by most safety standards ( 1.6 W/Kg for 1g of tissue), notably an increase in the

- 1) permeability of the blood-brain barrier and an increased synthesis of stress proteins.”

“Even where an association between exposure and cancer is well established and the risk very high -- as with tobacco and lung cancer -- under similar study conditions (in other words with people who smoked for less than 10 years) it would be difficult, if not impossible, to identify an increased risk of cancer, as the risk appears mostly 15 to 35 years later.”

Note that cellular phone studies are included due to the fact that wireless technologies such as Wi-Fi, WLAN, fall in the same exposure range as cellphones.

**Extract from American Trial Lawyer, “Illusion & Escape” – Fall 2008**  
**By Dr. George Carlo**

Dr. George Carlo is regarded as the world’s leading expert on the wireless industry as he ran the industry’s own research program, the world’s largest study on the health effects of wireless radiation: a 6 year, \$28.5 million study, employing over 200 doctors and scientists.

“Another part of the corporate strategy encourages manipulation of the consumer market, such as the effort to convince parents and teachers that Wi-Fi wireless internet access to school will improve education – with no evidence to support the claim. Ironically, the pathology associated with ICRW is consistent with learning deficiencies linked to Wi-Fi itself.”

**Summary**

The wireless industry is exploiting children by marketing untested and unregulated wireless devices to them, their parents, teachers and caregivers. There have been no long term studies that take into account the latency period of the types of cancers and diseases that may be associated with RF/MW exposure. The rapid deployment of wireless technologies has bypassed the scientific ability to calculate long term risk to children. Langley School Board needs to protect the child by doing everything to minimize exposure to electromagnetic pollution within the school, and specifically to wireless technology (Wi-Fi) to remove any potential of harm to the child’s health and wellbeing, at present and in the future. Convenience and cost issues need to be seen as less vital than protecting the child’s current and future health.

Libby Kelley, former public health policy analyst at the U.S. Department of Health and Human Services, director of the Council on Wireless Technology Impacts, calls for greater caution regarding the introduction of wireless signals and devices near our children. She states:

“Until we know beyond the shadow of a doubt that this technology can be safely used by children, we are behaving like irresponsible adults by treating our children as guinea pigs in this uncontrolled experiment.”

**No Informed Consent**

- D. The Langley School Board needs to ask parents for their informed consent to the exposure of their children to non-thermal non-ionizing radiation (RF/MW)

commonly associated with wireless technologies (Wi-Fi, WLAN). There must be no censorship and no barriers to access or any attempt to control public opinion. It would be improper, if not unethical, for our education system to be handing out yes or no questionnaires concerning Wi-Fi without informing the public of the substantial scientific and medical literature which demonstrates harm.

---

### **BioInitiative Report 2007**

“There is inadequate warning and notice to the public about possible risks from wireless technologies in the marketplace, which is resulting in adoption and use of technologies that may have adverse health consequences which are still unknown to the public. There is no “informed consent”.

“Health agencies and school districts should strongly discourage or prohibit cell towers on or near (within 1000’ of) school properties, should delay any new WLAN installations in school classrooms, pre-schools and day-care facilities; and should either remove or disable existing wireless facilities, or be required to offer classrooms with no RF exposure to those families who choose not to have their children involuntarily exposed.”

“Disclosure should be provided to the public on the location and operating characteristics of all wireless antenna sites in a fashion easily accessible to the public so informed choices can be made about where to live, shop, work and go to school. Such information should mandatorily include cumulative RF/MW exposures based on calculations from FCC OET Bulletin 65 (or equivalent) at ground level and second story level in increments of 50 feet outward from the facility to a power density of 0.1  $\mu\text{W}/\text{cm}^2$  or 0.614V/m. Signage for the public should be a mandatory condition of approval for all sites, and should be kept current. Public agencies that approve and monitor wireless sites should require the applicant to identify locations of wireless facilities.”

### **Santa Fe Librarians Statement – August 6, 2008**

“It is our obligation as librarians to provide uncensored information to all people. These ideals, a) no censorship, and b) no barriers to access, are rooted in this profession. The American Library Association Bill of Rights and many other documents, policies and legislative efforts enshrine these long-held ideals.

A responsible administration and board would investigate the issue fully and keep lines of communication open. They would collect materials on electro-pollution and electro-hypersensitivity to provide educational opportunities for the public.

Is it not improper, if not unethical, for our public library system to be handing out yes or no questionnaires concerning Wi-Fi without informing the public of the substantial scientific and medical literature which demonstrates harm? What duty is it of the public library to censor information and try to control public opinion?

It is not acceptable to create barriers for people who are adversely affected by electromagnetic fields, including epileptics. Exposure can induce severe symptoms such as heart arrhythmias and seizures. Wi-Fi is a barrier for these people.

The Library Services for People with Disabilities Policy states: "Libraries must not discriminate against individuals with disabilities and shall ensure that individuals with disabilities have equal access to library resources."

Under the facilities section, the policy states: "The Americans with Disabilities Acts requires that both architectural barriers in existing facilities and communication barriers that are structural in nature be removed ..." This statement indicates that Wi-Fi should be banned."

### **Summary**

Parents need to be informed well in advance of the plan to install Wi-Fi, WLAN or other wireless technologies in schools. Parents need to be provided, without censorship or barriers to access, medical literature and scientific research that documents harm as well as other points of view so that the consent has value and is not manipulated to control opinion. Parents right to know and right to choose safe environments for their children needs to be respected and upheld. Parents should not have to choose between health and education when analyzing a risk/benefit scenario within school setting.

### **Precautionary Principle**

- E. The case for enacting the Precautionary Principle is justified given the current controversy within the scientific community surrounding potential for harm from exposure to radiofrequency microwave radiation, and the calls for more studies and research into the biological effects of non-ionizing radiation as a potential threat to human health. This would be evidenced by Langley School Board calling for a moratorium on Wi-Fi and choosing hard wiring of new computer installations instead of installing questionable wireless internet technology.

---

We make reference to University of Chicago research evidencing that 2 hours exposure to RF fields at 2.45 GHz (Wi-Fi exposure range) can alter gene expression in cultured human cells through non-thermal mechanism, as detailed below:

**“2.45 GHz radiofrequency fields alter gene expression in cultured human cells. Lee S, Johnson D, Dunbar K, Dong H, Ge X, Kim YC, Wing C, Jayathilaka N, Emmanuel N, Zhou CQ, Gerber HL, Tseng CC, Wang SM.**

Department of Medicine, University of Chicago, Chicago, IL 60637, USA. The biological effect of radiofrequency (RF) fields remains controversial. We address this issue by examining whether RF fields can cause changes in gene expression. We used the

pulsed RF fields at a frequency of 2.45 GHz that is commonly used in telecommunication to expose cultured human HL-60 cells. We used the serial analysis of gene expression (SAGE) method to measure the RF effect on gene expression at the genome level. We observed that 221 genes altered their expression after a 2-h exposure. The number of affected genes increased to 759 after a 6-h exposure. Functional classification of the affected genes reveals that apoptosis-related genes were among the upregulated ones and the cell cycle genes among the downregulated ones. We observed no significant increase in the expression of heat shock genes. These results indicate that the RF fields at 2.45 GHz can alter gene expression in cultured human cells through non-thermal mechanism.”

This is only one of the research documents evidencing genotoxicity that has prompted dismantling of Wi-Fi systems at different locations. Please note that this research was conducted in 2005, after the Safety Code 6 and WHO guidelines were revised in 1999. This and similar research evidencing genotoxicity and other cellular damage, such as single and double strand DNA breaks, increase in micronuclei and chromosomal aberrations through non-thermal mechanisms have not yet been integrated into public health protection policies.

### **Examples of Precautionary Principle In Action**

#### 1. Sorbonne University, Paris – May 13, 2009

“A moratorium on Wi-Fi terminals was announced at the Paris III Sorbonne University. The decision concerns the Bibliothèque Sainte-Geneviève, Sainte-Barbe, of Oriental Languages and Documentation Center of the Faculty of Censier. At the last meeting of its Health and Safety Committee, the Paris III Sorbonne University announced it had implemented a moratorium to suspend the wireless terminals that operate in these places and which allow access to wireless internet.”

"The health problem (posed by wireless terminals NDLR) is similar to that posed by mobile phones," says Stephen Cendrier, spokesman for the Association Robin. At the libraries in Paris, several employees have complained about problems with memory or language, nausea, vomiting or dizziness.”

- news release excerpts

#### 2. City of Herouville St. Clair - 27 April 2009

“Concerned by the dangers of electromagnetic waves, the City of Hérouville St. Clair has decided to apply a precautionary principle towards the antennas.”

“By the end of the school year, all Wi-Fi equipment will be removed in primary schools. An information campaign will also be conducted with residents to raise awareness of the risks associated with mobile telephony.”

- news release excerpts

### 3. French Government – January 2009

“The French government is now the first European government to publicly announce a proposal for an outright ban on some aspect of mobile phone usage based exclusively on potential risks to health.”

“Environment Minister Jean-Louis Borloo has proposed new legislation that will lead to ban on the advertising of mobile phones to children under the age of 12. It will also be illegal for sales of phones that are intended for use by children under the age of 6, and it will be compulsory for all handsets to be sold with accompanying earphones.”

- news release excerpts

### 4. European Parliament, September 2008

European Parliament voted 559 – 22 to urge ministers across Europe to bring in stricter radiation limits, and the European Environment Agency has also issued a warning.

“Antennas, mobile phone masts and other electromagnetic emitting devices should be set within a specific distance from schools and health institutions, according to a report adopted by the European Parliament. The Commission should make more reliable information available about the effects of exposure to electromagnetic fields to citizens who feel that they are not well informed. The report was adopted with 559 votes in favour, 22 against and 8 abstentions.”

“The report acknowledges the wide use of wireless technologies and other electromagnetic emitting technologies and their benefits to society, but also raises concerns over their "continuing uncertainties about possible health risks." In particular, there are concerns about the exposure of children and young people to electromagnetic fields. Therefore, MEPs call for stricter regulation and protection for residents and consumers.”

– European Parliament news release

### 5. France National Library gives up Wi-Fi - April 7, 2008

“The management of the famous France National Library (BNF) just decided a moratorium on the Wi-Fi hot spot giving access to internet that were supposed to be installed by a private corporation on the entire area. The given arguments being the research of the service quality, but also the precaution principle to be applied in order to

avoid the exposure of its staff and of all visitors to of electromagnetic fields 2,45 GHz radiation risks.”

“This decision is justified by an argument that is supported by scientific literature which proves genotoxic effects from Wi-Fi waves, specially :

An American research study from Professor S. Lee and al. at the Chicago University about genetic alterations in human cells exposed to radiofrequencies fields of 2, 45 GHz (Wi-Fi frequency). [ Scientific Study : [NCBI.Gov – PubMed – news release](#)

“Moreover, the Sainte Genviève Library (ParisV) staff has written a petition asking to disconnect the Wi-Fi terminals already installed and their replacement with a wired connection.”

“The FSU – BNF and supap-FSU unions are inviting the politic, university and cultural officials to reconsider the massive and systematic use of Wi-Fi and replace it by a general use of a wired connection. They are asking as well a discussion on the finality of such technology in university public reading rooms and patrimonial libraries.”

- news release excerpt

#### 6. Germany warns citizens to avoid using Wi-Fi – September 2007

##### Environment Ministry's verdict on the health risks from wireless technology

“People should avoid using Wi-Fi wherever possible because of the risks it may pose to health, the German government has said.

And Germany's official radiation protection body also advises its citizens to use landlines instead of mobile phones, and warns of "electrosmog" from a wide range of other everyday products, from baby monitors to electric blankets.

The Environment Ministry recommended that people should keep their exposure to radiation from Wi-Fi "as low as possible" by choosing "conventional wired connections". It added that it is "actively informing people about possibilities for reducing personal exposure".

Its actions will provide vital support for Sir William Stewart, Britain's official health protection watchdog, who has produced two reports calling for caution in using mobile phones and who has also called for a review of the use of Wi-Fi in schools.

By contrast the agency's German equivalent – the Federal Office for Radiation Protection – is leading the calls for caution.

Florian Emrich, for the office, says Wi-Fi should be avoided "because people receive exposures from many sources and because it is a new technology and all the research into its health effects has not yet been carried out".

- news release excerpt

### 7. International Association of Fire Fighters, Division of Occupational Health, Safety and Medicine – August 2004

Position on the Health Effects from Radio Frequency/Microwave (RF/MW) Radiation in Fire Department Facilities from Base Stations for Antennas and Towers for the Conduction of Cell Phone Transmissions

“The International Association of Fire Fighters’ position on locating cell towers commercial wireless infrastructure on fire department facilities, as adopted by its membership in August 2004, is that the IAFF oppose the use of fire stations as base stations for towers and/or antennas for the conduction of cell phone transmissions until a study with the highest scientific merit and integrity on health effects of exposure to low-intensity RF/MW radiation is conducted and it is proven that such sitings are not hazardous to the health of our members.”

“WHEREAS, The U.S. Environmental Protection Agency stated in a July 16, 2002 letter: *Federal health and safety agencies have not yet developed policies concerning possible risk from long-term, non-thermal exposures. The FCC’s exposure guideline is considered protective of effects arising from a thermal mechanism (RF radiation from cell towers is non-thermal) but not from all possible mechanisms. Therefore, the generalization by many that the guidelines protecting human beings from harm by any or all mechanisms is not justified;*”

- excerpts from Position and Resolution

### Scientific Community - Examples of Precaution and Public Health Policy Recommendations

#### London Resolution – May 2009

“Based on the precautionary principle, children and vulnerable groups (such as people with epilepsy and heart conditions) should not be exposed to a risk of harm, thus we propose that

- No Wi-fi, WiMax or other forms of wireless networking are placed in homes, schools or public areas or promoted for use thereof.
- Children under 16 should use mobile phones and cordless phones for emergency calls only.

The precautionary principle needs to be implemented.”

#### BioInitiative Report 2007

“The Precautionary Principle has been developed to help justify public policy action on the protection of health where there are plausible, serious and irreversible hazards from current and future exposures and where there are many uncertainties and much scientific ignorance. EMF is characterized by such circumstances.”

“The lessons from the histories of most well known hazards show that precautionary-based yet proportionate measures taken in response to robust early warnings can avoid the kinds of costs incurred by asbestos, smoking, PCBs ,X rays etc. Such lessons are relevant to the EMF issue.”

“Mobile phone - free and WI-FI-free public areas should be established in areas where the public congregates and can have a reasonable expectation of safety; including airports, public shopping, hospitals, libraries, medical clinics, convalescent homes and assisted living facilities, theatres, restaurants, parks, etc.”

”Health agencies and school districts should strongly discourage or prohibit cell towers on or near (within 1000’ of) school properties, should delay any new WLAN installations in school classrooms, pre-schools and day-care facilities; and should either remove or disable existing wireless facilities, or be required to offer classrooms with no RF exposure to those families who choose not to have their children involuntarily exposed.”

“New public safety limits should be developed and implemented for ELF (50 Hz and 60 Hz electrical power frequencies). ELF limits should be set below those exposure levels that have been linked in childhood leukemia studies to increased risk of disease, plus an additional safety factor.”

“Research must continue to define what levels of RF related to new wireless technologies are acceptable; but more research should not prevent or delay substantive changes today that might save money, lives and societal disruption tomorrow.”

“This recommendation is based on the assumption that a higher burden of protection is required for children who cannot protect themselves, and who are at risk for childhood leukemia at rates that are traditionally high enough to trigger regulatory action.”

“...we also recommend that wired alternatives to WI-FI be implemented, particularly in schools and libraries so that children are not subjected to elevated RF levels until more is understood about possible health impacts. This recommendation should be seen as an interim precautionary limit that is intended to guide preventative actions; and more conservative limits may be needed in the future.”

### **The Venice Resolution**

“We call upon governments to apply the Precautionary Principle as an interim measure while more biologically relevant standards are developed to protect against, not only the absorption of electromagnetic energy by the head, but also adverse effects of the signals on biochemistry, physiology and electrical biorhythms.”

## **Benevento Resolution**

We encourage governments to adopt a framework of guidelines for public and occupational EMF exposure that reflect the Precautionary Principle<sup>11</sup> -- as some nations have already done. Precautionary strategies should be based on design and performance standards and may not necessarily define numerical thresholds because such thresholds may erroneously be interpreted as levels below which no adverse effect can occur. These strategies should include:

- 7.1. Promote alternatives to wireless communication systems, e.g., use of fiber optics and coaxial cables;
  - a. Designate wireless-free zones in cities, in public buildings (schools, hospitals, residential areas) and, on public transit, to permit access by persons who are hypersensitive to EMF.

## **Helsinki Appeal**

We, undersigned physicians and researchers, feel great concern about the Precautionary Principle not being sufficiently applied to the electromagnetic fields, especially in the radio- and microwave frequency bands.

## **States of Colorado, Connecticut and Florida - Electromagnetic Sensitivity Awareness Month - Official Proclamations**

“WHEREAS the health of the general population is at risk from electromagnetic exposures than can lead to this illness induced by electromagnetic radiations; and”

“WHEREAS this illness may be preventable through the reduction or avoidance of electromagnetic radiations, in both indoor and outdoor environments and by conducting further scientific research; and”

## **Summary**

The Precautionary Principle states when there are indications of possible adverse effects, though they remain uncertain, the risks from doing nothing may be far greater than the risks of taking action to control these exposures.

The Precautionary Principle shifts the burden of proof from those suspecting a risk to those who discount it.

## **Questions of Liability**

- F. That Langley School District No. 35 cannot assume nor give any assurance of safety with regard to children being exposed to radiofrequency microwave

radiation in their public schools through installation of wireless internet (Wi-Fi). Proceeding with installations of wireless technologies at a time in history when individuals, organizations and governments are heeding the calls for caution, especially around children, may expose Langley School District, and its employees, to hitherto unsuspected liability issues.

---

There are a number of liability questions that Langley School District may wish to consider with regard to installing wireless internet (Wi-Fi) in its public schools:

1. In light of the current scientific community controversy surrounding RF/MW radiation, what kind of financial liability would a school district incur if long-term or short-term exposure to Wi-Fi is found to cause cancer or other disorders, or increase the risk of cancer or other disorders?
2. If a decision is made to move forward with Wi-Fi/WLAN, what is the responsibility of the school district relative to disclosing any potential risks to parents, employees, the public at large, and special groups within the public who may have greater risk, such as children, pregnant women, epileptics and those with heart conditions?
3. The issue of exposure of children and others to RF/MW radiation is currently being discussed by those in the legal profession. A plaintiff could request punitive damages on the grounds that the defendants knew or should have known that RF/MW radiation is harmful to human health, and that defendants failed to take affirmative steps to prevent exposure that was at harmful levels. Thus how great could the potential liability be for allowing wireless technologies, (Wi-Fi and WLAN), to remain, or to install such systems in light of questionable safety?
4. Are there safer alternatives?
5. On what criteria should the school district base the decision to place wireless technology within its classrooms and schools? What proof can the school district supply that provides evidence that introducing Wi-Fi capability instead of hard wiring improves scholastic performance?
6. If cost savings is the determining factor in this decision, what level of health risk is acceptable and supportable in a broad-scale deployment of wireless technologies in environments populated largely by children who will be subjected to long periods or short periods of exposure to RF/MW radiation?
7. What would be the risk in calling a moratorium to further deployment of Wi-Fi/WLAN in schools until more studies are completed specifically on children's exposure to Wi-Fi and more understanding of the biological actions understood?

8. What kind of personal liability would attach to each person involved with the decision making process to install Wi-Fi in public schools if this technology is found harmful to human health?
9. If School District #35 officials believe this Wi-Fi technology is safe and plan to install it in Langley Fine Arts School, please have all persons involved in the decision complete the attached Statement of Accountability.

### Summary

Until more is known about the biological effects that have the potential of being detrimental to human health and especially children, and until the safety guidelines are revised through further research, the Langley School Board, as an entity and those personally representing said entity, may assume liability risks that it has not considered. To choose hard wiring options over potentially risky technology would avoid possibilities of liability issues connected with emerging science indicating harm from wireless technologies.

Words from Dr. Heberman, MD, Director, University Pittsburgh Cancer Institute

“In the early 1980’s, the owners of asbestos mines were reduced to bankruptcy as a result of lawsuits brought by the families of deceased exposed workers. A few years later, a key executive of Johns Manville, the most prominent company, drew lessons from the years of struggle of his industry against medical data and the scientists who were drawing attention to the risks of asbestos. He concluded with regret that greater warnings for the public, the establishment of more effective precautions, and more extensive medical research "could have saved lives, and probably also shareholders, the industry, and the benefits of its product.”

We call upon the Langley School District #35 to enact the Precautionary Principle with regard to Langley Fine Arts School and use fibre optic hard wired connections to access internet through school computer systems to safeguard the health of the students, teachers, administrators and members of the general public who spend time, short or otherwise, at this public institution.

Respectfully Submitted,

Una St.Clair-Moniz and Ernest Moniz  
May 19, 2009

Documents attached to this submission are:

1. London Resolution

2. Venice Resolution  
Benevento Resolution  
Catania Resolution
3. Freiburger Appeal
4. Helsinki Appeal
5. Irish Doctors Position Paper on EMR
6. Advice from University of Pittsburgh Cancer Institute
7. Associated Press Release – WHO Criticized for Neglecting Evidence
8. Conflict of Interest & Bias in Health Advisory Committees: A case study of the WHO's EMF Task Group
9. Declaration of the Rights of the Child
10. Russian National Committee on Non-Ionizing Radiation Protection
11. International Association of Fire Fighters Position on RF/MW
12. Germany warns citizens to avoid Wi-fi – new release
13. University of Pittsburgh Cancer Institute Memo to Faculty/Staff
14. Questions and Answers: Electromagnetic Fields and Our Health  
UPIC, Center for Environmental Oncology
15. Colorado EMS Proclamation - May 2009
16. Connecticut EMS Proclamation – May 2009
17. Florida EMS Proclamation – May 2009
18. Open letter from Dr. Havas
19. Open letter from Dr. Lai
20. Open letter from Dr. Blank
21. Wireless Technology & Public Health Announcement  
by Dr. Johansson, Department of Neuroscience, Karolinska Institute
22. Statement of Accountability for School Officials

BioInitiative Summary for the Public and  
BioInitiative Overall Conclusions can be  
accessed at [www.bioinitiative.org](http://www.bioinitiative.org)



