



**PUBLIC MEETING
OF THE BOARD OF EDUCATION**

Wednesday, June 8, 2011
2:30 p.m.

District Education Office
22225 Brown Avenue
Boardroom

A G E N D A

"Yesterday's answer has nothing to do with today's problem"

A - OPENING PROCEDURES

1. Call to Order
2. Correspondence
 - i. Cassandre Winder, Project Coordinator – Ridge-Meadows Home Show*
 - ii. Joy Haley, Grandparent – Elementary Band*
 - iii. Samantha Boutet, N.D. – Council of Europe*
 - iv. Samantha Boutet, N.D. – Cell Phone Radiation*
3. Ordering of Agenda

B- CONFIRMATION OF MINUTES

1. May 25, 2011*

C – PRESENTATIONS

1. Community Literacy Plan
Bruce Grady, District Principal and David Vandergugten, Deputy Superintendent

D – DELEGATIONS

E – CHAIR REPORT

F – DEFERRED ITEMS

G – TRUSTEE MOTIONS

H – CHIEF EXECUTIVE OFFICER'S REPORT

1. Decision Items
 - a) Superintendent of Schools
 - b) Deputy Superintendent
 - c) Secretary Treasurer
 - i. Temporary Borrowing Resolution*
 - ii. Proposed Draft Policies: Stakeholders and Senior Team Feedback*
2. Information Items
 - a) Superintendent of Schools
 - b) Deputy Superintendent
 - c) Secretary Treasurer

*Enclosure

**To Be Distributed

I – COMMITTEE BUSINESS

1. Committees of the Whole
 - a) 2010 - 2011 Finance
 - b) 2011 - 2012 Budget
2. Committee & Advisory Committee Reports
 - a) Education Committee
 - b) Human Resources Committee
 - c) Inclusive Education
 - d) Policy Advisory Committee
 - e) Aboriginal Education Committee
 - f) French Immersion Advisory Committee
 - g) Anti-Vandalism Advisory Committee
 - h) Communications Advisory
 - i) District Student Advisory Committee
 - j) Social Wellness Committee
 - k) Historical Committee
 - l) Advocacy Committee

J – QUESTION PERIOD

1. Trustee Questions
2. Staff Questions
3. Public Questions
4. DPAC Questions
5. Employee Group Questions

K – TRUSTEE REPORTS

1. Ridge Meadows Education Foundation
2. Joint Parks and Leisure Services
3. Social Planning Advisory
4. Municipal Advisory & Accessibility
5. Ridge Meadows Community Arts Council
6. BC School Trustee Association Provincial Council
7. District Parent Advisory Council
8. Tzu Chi Foundation
9. Youth Society Committee
10. External Representative Reports
11. Board Liaison Representative Reports
12. Other Trustee Reports
 - a) Good News Items
 - b) Public Disclosure of Closed Meeting Business*

L – OTHER BUSINESS

M – ADJOURNMENT

**Enclosure*

***To Be Distributed*



To: Board of Education

From: Board Chair
Ken Clarkson

Re: **CORRESPONDENCE**

Date: June 8, 2011
(Public Board Meeting)

Information

1. Cassandre Winder, Project Coordinator –
Ridge-Meadows Home Show at Planet Ice
2. Joy Haley, Grandparent – Elementary Band
3. Samantha Boutet, N.D. – Council of Europe
4. Samantha Boutet, N.D. – Cell Phone Radiation

RECOMMENDATION:

THAT the Board receive all correspondence for information.

Attachments

ridge-meadows
HOME
SHOW
AT PLANET ICE

S P O N S O R
P A R T N E R S

Westminster Savings

McDonald's Restaurants

Westridge Security

Mark's Work Wearhouse

West Coast Auto Group

District of Maple Ridge

Orange Frog Creative Group

Speedpro Signs

P & L Speed Print

School District 42

Meyers Norris Penny

Johnston Meier
Insurance Group

The News

The Times

KVOS Television

CKNW

JRfm

Trice Farms
Pond & Garden Centre

Ramada Inn & Suites

Quality Inn & Suites

Tuesday, May 17, 2011

Ken Clarkson
Chairman, Board of Education
School District 42
22225 Brown Avenue
Maple Ridge, BC V2X8N6

Dear Mr. Clarkson and trustees:

Who could ask for anything more?

Mother Nature summoned up three days of clear weather in the midst of a monsoon. The Canucks beat Chicago. More than 20,000 visitors flocked to Planet Ice to attend our biggest, best show ever.

Thank you for your generous support of the 2011 Ridge Meadows Home Show. There is a great deal of satisfaction in producing an event that enjoys such huge community buy-in and support from virtually every hallmark business and organization in our community.

Our student leadership program continues to impress all who come in contact with the great team of kids that come from the five local secondary schools. We can't say enough about the careers teachers we work with; they are extremely professional and organized and very dedicated to the program. Several of them attended at the event and, at our district-wide pre-show student meeting.

Thanks ever so much for being a part of our success.

Best regards,



Cassandre Winder
Project Coordinator

From: joyhaley

Sent: Wednesday, May 25, 2011 6:31 PM

To: Ken Clarkson; Mike Huber; Susan Carr; Eleanor Palis; David Rempel; Stepan Vdovine; Kathie Ward

Subject: band program

Hello, although I am not a teacher or a parent, I am a grandmother who has a child in the elementary system and I am very! concerned over the band programme cuts.

It is to this end I feel I must add my voice of distress.

I had my children in an elementary band programme, not because they were musically inclined, though a couple were (and one decidedly not) but because I believe, and this belief is supported by data already available to educators and school boards, that music training aids in the development of maths, logical thinking and language skills. And at present, band is the only subject taught at the high school level that encompasses these disciplines simultaneously. In view of this every teacher and trustee should view band not, as a year end or school event, but as a effective learning tool to enhance brain development, in those fields somewhat delayed in teens, logic, critical thinking, organization etc.. All this is really "old news", but perhaps the powers that be could be reminded of this when they seek value for the dollar.

One other point that I have not seen raised yet is the "social aspect" of band. This is just as important to me as a parent/grandparent. And is the second reason why all my children, regardless of aptitude, were in band. Going into high school is a daunting task, (lord knows it is not one that I would want to do again) for all children, no matter how many "visits" provided for them in grade 7. Children in the band programme are more familiar and more at ease with the high school experience, because they have already participated to some degree in "experience". Entering into the high school environment is smoother because there is already a place waiting for them when they get there. Really for me there was no better assurance that my children would experience high school in a positive light because of this.

I hope this letter is of assistance to this issue, please feel free to use it in any way you see fit
Sincerely Yours, Joy Haley

Samantha Boutet, N.D.
11659 River Wynd St.
Maple Ridge, B.C.
V2X 7G9
May 26, 2011

Maple Ridge School Trustees:
Ken Clarkson, Eleanor Palis, Susan Carr, Mike Huber, Dave Rempel, Stepan
Vdovine, Kathie Ward.
Maple Ridge School Superintendent:
Jan Unwin

Dear Sirs/Mesdames:

Please direct your attention to the report from the Council of Europe, dated May 2011, following this letter.

I realize that the document is long and you are all very busy. I have therefore highlighted pertinent information to hopefully make the task of reading it a little less time consuming.

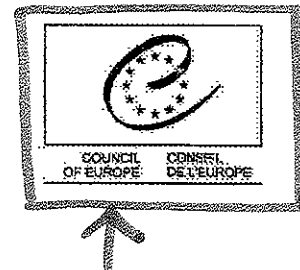
Time is running out for the telecommunications industry. If you fail to act in children's best interests and stop exposing them to this toxic electromagnetic radiation, you will be on the wrong side of history.

Parents will hold you responsible for any damages their children are currently sustaining due to your negligence.

Sincerely,

 N.D.
Samantha Boutet, N.D.

THIS PAGE ONLY



Doc. 12608

6 May 2011



The potential dangers of electromagnetic fields and their effect on the environment

Report¹

Committee on the Environment, Agriculture and Local and Regional Affairs

Rapporteur: Mr Jean HUSS, Luxembourg, Socialist Group

Summary

The potential health effects of the very low frequency of electromagnetic fields surrounding power lines and electrical devices are the subject of ongoing research and a significant amount of public debate. While electrical and electromagnetic fields in certain frequency bands have fully beneficial effects which are applied in medicine, other non-ionising frequencies, be they sourced from extremely low frequencies, power lines or certain high frequency waves used in the fields of radar, telecommunications and mobile telephony, appear to have more or less potentially harmful, non-thermal, biological effects on plants, insects and animals, as well as the human body when exposed to levels that are below the official threshold values.

One must respect the precautionary principle and revise the current threshold values; waiting for high levels of scientific and clinical proof can lead to very high health and economic costs, as was the case in the past with asbestos, leaded petrol and tobacco.

Please see highlighted
text in particular.

¹ Reference to the committee: Doc. 11894, Reference 3563 of 29 May 2009.


A. Draft resolution²


1. The Parliamentary Assembly has repeatedly stressed the importance of states' commitment to preserving the environment and environmental health, as set out in many charters, conventions, declarations and protocols since the United Nations Conference on the Human Environment and the Stockholm Declaration (Stockholm, 1972). The Assembly refers to its past work in this field, namely Recommendation 1863 (2009) on environment and health, Recommendation 1947 (2010) on noise and light pollution, and more generally, Recommendation 1885 (2009) on drafting an additional protocol to the European Convention on Human Rights concerning the right to a healthy environment and Recommendation 1430 (1999) on access to information, public participation in environmental decision-making and access to justice – implementation of the Aarhus Convention.

2. The potential health effects of the very low frequency of electromagnetic fields surrounding power lines and electrical devices are the subject of ongoing research and a significant amount of public debate. According to the World Health Organisation, electromagnetic fields of all frequencies represent one of the most common and fastest growing environmental influences, about which anxiety and speculation are spreading. All populations are now exposed to varying degrees of to electromagnetic fields, the levels of which will continue to increase as technology advances.

3. Mobile telephony has become commonplace around the world. This wireless technology relies upon an extensive network of fixed antennas, or base stations, relaying information with radio frequency signals. Over 1.4 million base stations exist worldwide and the number is increasing significantly with the introduction of third generation technology. Other wireless networks that allow high-speed internet access and services, such as wireless local area networks, are also increasingly common in homes, offices and many public areas (airports, schools, residential and urban areas). As the number of base stations and local wireless networks increases, so does the radio frequency exposure of the population.

4. While electrical and electromagnetic fields in certain frequency bands have wholly beneficial effects which are applied in medicine, other non-ionising frequencies, be they sourced from extremely low frequencies, power lines or certain high frequency waves used in the fields of radar, telecommunications and mobile telephony, appear to have more or less potentially harmful, non-thermal, biological effects on plants, insects and animals as well as the human body even when exposed to levels that are below the official threshold values.

 5. As regards standards or threshold values for emissions of electromagnetic fields of all types and frequencies, the Assembly recommends that the ALARA or "as low as reasonably achievable" principle is applied, covering both the so-called thermal effects and the athermic or biological effects of electromagnetic emissions or radiation. Moreover, the precautionary principle should be applicable when scientific evaluation does not allow the risk to be determined with sufficient certainty, especially given the context of growing exposure of the population, including particularly vulnerable groups such as young people and children, which could lead to extremely high human and economic costs of inaction if early warnings are neglected.

 6. The Assembly regrets that, despite calls for the respect of the precautionary principle and despite all the recommendations, declarations and a number of statutory and legislative advances, there is still a lack of reaction to known or emerging environmental and health risks and virtually systematic delays in adopting and implementing effective preventive measures. Waiting for high levels of scientific and clinical proof before taking action to prevent well-known risks can lead to very high health and economic costs, as was the case with asbestos, leaded petrol and tobacco.

7. Moreover, the Assembly notes that the problem of electromagnetic fields or waves and the potential consequences for the environment and health has clear parallels with other current issues, such as the licensing of medication, chemicals, pesticides, heavy metals or genetically modified organisms. It therefore highlights that the issue of independence and credibility of scientific expertise is crucial to accomplish a transparent and balanced assessment of potential negative impacts on the environment and human health.

8. In light of the above considerations, the Assembly recommends that the member states of the Council of Europe:

8.1. in general terms:

² Draft resolution adopted unanimously by the committee on 11 April 2011.



8.1.1. take all reasonable measures to reduce exposure to electromagnetic fields, especially to radio frequencies from mobile phones, and particularly the exposure to children and young people who seem to be most at risk from head tumours;

8.1.2. reconsider the scientific basis for the present electromagnetic fields exposure standards set by the International Commission on Non-Ionising Radiation Protection, which have serious limitations and apply "as low as reasonably achievable" (ALARA) principles, covering both thermal effects and the athermic or biological effects of electromagnetic emissions or radiation;

8.1.3. put in place information and awareness-raising campaigns on the risks of potentially harmful long-term biological effects on the environment and on human health, especially targeting children, teenagers and young people of reproductive age;



8.1.4. pay particular attention to "electrosensitive" persons suffering from a syndrome of intolerance to electromagnetic fields and introduce special measures to protect them, including the creation of wave-free areas not covered by the wireless network;

8.1.5. in order to reduce costs, save energy, and protect the environment and human health, step up research on new types of antennas and mobile phone and DECT-type devices, and encourage research to develop telecommunication based on other technologies which are just as efficient but have less negative effects on the environment and health;

8.2. concerning the private use of mobile phones, DECT phones, WiFi, WLAN and WIMAX for computers and other wireless devices such as baby phones:

8.2.1. set preventive thresholds for levels of long-term exposure to microwaves in all indoor areas, in accordance with the precautionary principle, not exceeding 0.6 volts per metre, and in the medium term to reduce it to 0.2 volts per metre;

8.2.2. undertake appropriate risk-assessment procedures for all new types of device prior to licensing;

8.2.3. introduce clear labelling indicating the presence of microwaves or electromagnetic fields, the transmitting power or the specific absorption rate (SAR) of the device and any health risks connected with its use;

8.2.4. raise awareness on potential health risks of DECT-type wireless telephones, baby monitors and other domestic appliances which emit continuous pulse waves, if all electrical equipment is left permanently on standby, and recommend the use of wired, fixed telephones at home or, failing that, models which do not permanently emit pulse waves;

8.3. concerning the protection of children:



8.3.1. develop within different ministries (education, environment and health) targeted information campaigns aimed at teachers, parents and children to alert them to the specific risks of early, ill-considered and prolonged use of mobiles and other devices emitting microwaves;



8.3.2. ban all mobile phones, DECT phones or WiFi or WLAN systems from classrooms and schools, (as advocated by some regional authorities, medical associations and civil society organisations;

8.4. concerning the planning of electric power lines and relay antenna base stations:

8.4.1. introduce town planning measures to keep high-voltage power lines and other electric installations at a safe distance from dwellings;

8.4.2. apply strict safety standards for sound electric systems in new dwellings;

8.4.3. reduce threshold values for relay antennas in accordance with the ALARA principle and install systems for comprehensive and continuous monitoring of all antennas;

8.4.4. determine the sites of any new GSM, UMTS, WiFi or WIMAX antennas not solely according to the operators' interests but in consultation with local and regional government officials, local residents and associations of concerned citizens;

8.5. concerning risk assessment and precautions:

8.5.1. make risk assessment more prevention oriented;

8.5.2. improve risk-assessment standards and quality by creating a standard risk scale, making the indication of the risk level mandatory, commissioning several risk hypotheses and considering compatibility with real life conditions;

8.5.3. pay heed to and protect "early warning" scientists;

8.5.4. formulate a human rights oriented definition of the precautionary and ALARA principles;

8.5.5. increase public funding of independent research, *inter alia* through grants from industry and taxation of products which are the subject of public research studies to evaluate health risks;

8.5.6. create independent commissions for the allocation of public funds;

8.5.7. make the transparency of lobby groups mandatory;

8.5.8. promote pluralist and contradictory debates between all stakeholders, including civil society (Aarhus Convention).

B. Explanatory memorandum by Mr Huss, rapporteur**Contents**

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1. Introduction

1. Electromagnetic fields, whether emitted by high-voltage lines, domestic appliances, relay antennas, mobile telephones or other microwave devices, are increasingly present in our techno-industrial environment.

2. Obviously, in evolutionary terms, living or working in artificial electromagnetic extremely low frequency and high frequency fields, on top of the electromagnetic fields naturally occurring in the environment, is still a relatively new experience for human beings, fauna and flora. It goes back no further than fifty years or so, when intensive industrial and domestic exposure began with radars, radio waves and televisions and electromagnetic fields generated by high-voltage lines and household electrical appliances.

3. It was only from the 1990s onwards that the new telephony and wireless mobile communication technologies began to boom ever faster Europe-wide and even worldwide thanks to increasingly diverse and sophisticated applications: mobile telephones, cordless telephones, WiFi, WLAN (wireless local area network), etc.

4. The term "electromagnetic fields" covers all the fields emitted by natural and man-made sources. A distinction is drawn between static fields and alternating fields. In the latter case there is essentially a differentiation between extremely low frequency (ELF) fields, such as domestic electricity, and hyper-frequency (HF) fields, which include mobile telephones. Electrical fields are measured in volts per metre (v/m), whereas magnetic fields are measured in terms of current-induced exposure in microteslas (μ t). Since very weak electrical currents are part of human physiology, at the level of communication between cells for example, the question of the possible disruptive effects of present levels of artificial exposure on the human environment and any consequences they might have for health may legitimately be raised.

5. It should be noted with satisfaction that a major contribution was made by the technological innovations resulting from electrification and new radio-telecommunication techniques to economic growth and the material well-being of the populations of industrialised countries. Domestic appliances, for example, have greatly helped to lighten the load from everyday chores in millions of households and played a not inconsiderable role in the women's liberation movement.

2. Background to the debate

6. Nevertheless, it must be said that, since some of these new technologies were first introduced, environmental or health problems have emerged and become a topic of discussion in certain countries, both in scientific circles and in the field of health and occupational medicine. From the 1930s onwards, radar waves were linked to certain "microwave syndromes" among operators and technicians subjected to intensive and prolonged exposure. The former USSR and Eastern bloc countries adopted very low preventive thresholds aimed at protecting operators' health.

7. In the United States and western Europe, discussion of potential harm to health resulting from electromagnetic fields focused, in the 1970s and 1980s, essentially on the problem of high- or very high-voltage lines and protection in the workplace (for those working on computers, in electrically powered steelworks, etc). As far as the risks from high-voltage lines are concerned, an American epidemiological study (Wertheimer and Leeper, 1979) demonstrated a link between the proximity of high-voltage lines and

child leukaemia, corroborated in 2001 by the International Agency for Research on Cancer (IARC), which classified these fields as "possibly carcinogenic to humans" (category 2B). At the same time, from the early 1980s onwards, another issue relating to electromagnetic fields and chemical pollution was raised at international conferences: discomforts due to office computer screens, health effects in the form of headaches, fatigue and eye and skin problems. Regarding the electromagnetic aspect of those effects, stringent preventive standards (TCO standards) were proposed at the beginning of the 1990s by the Swedish Confederation of Employees and then widely adopted.

8. The 1990s saw a boom in mobile telephony and its rapid expansion, first in the industrialised countries and then increasingly in the developing countries of Africa, Asia and Latin America.



9. Mobile telephony and ever more sophisticated wireless telecommunication applications have not only been taken on board in professional spheres but have also quite literally invaded our private life. This affects even very young children, at home, at school, on transport, etc.

3. Growing concerns in Europe

10. However, for a good ten years or so, Europe's populations have begun to show increasing concern over the potential health risks of mobile telephony, with reliable information on these questions in short supply. In a recent Eurobarometer study (European Commission), 48% of Europeans stated that they were concerned or very concerned over the potential health risks posed by mobile telephony. The presumption of risk was noted among 76% of Europeans concerning relay antennas and 73% concerning the potential effects of mobile telephones respectively.



11. Such concerns over electromagnetic fields or waves have triggered the emergence and growth of a multitude of citizens' initiatives in many countries. These initiatives are mostly directed against the installation of relay antenna stations, above all close to schools, nurseries, hospitals or other institutions caring for children or vulnerable individuals, and also increasingly challenge other aspects of wireless telecommunication such as WiFi in schools for example.

12. The Committee on the Environment, Agriculture and Local and Regional Affairs organised two hearings with experts on 17 September 2010 and 25 February 2011.

13. At the first hearing of experts, Mr Ralph Baden of the Occupational Medicine Department of the Ministry of Health of the Grand-Duchy of Luxembourg spoke generally about the issue of very low frequency and high frequency electromagnetic fields and waves and the respective applicable threshold values. He listed the different sources of those electromagnetic fields outside dwellings: relay antennas, high-voltage lines, radio stations, television, radars, etc, but laid special emphasis on the results of measurement readings, on sources of such fields in homes or public buildings and provided concrete examples of simple and practical means of reducing exposure to these "indoor" fields and eliminating certain health problems, such as headaches, insomnia, coughs, depression, etc.

4. Effects on the environment: plants, insects, animals

14. At the same hearing of experts, Dr Ulrich Warnke of the Institute of Technical Biology and Bionics in Saarbrücken described the biological effects of certain microwave frequencies on plants. Depending on the frequencies, their intensity and modulation and the length of exposure, scientific studies demonstrated stress reactions and disruptions of gene expression. Recent studies by the cellular biology laboratory of Clermont-Ferrand University (2007), for example, clearly show the effects of mobile telephony microwaves on plant genes, in particular tomato plants.

15. Other scientific international studies show comparable stress reactions in certain types of beans, as well as deciduous and coniferous trees exposed to various frequencies (relay antennas, TETRA frequency).

16. Dr Warnke highlighted the innate magnetic compass used by certain animals or insects to orient themselves in time and space and which dictates the internal functioning of their organism, before going on to demonstrate how extremely weak artificial fields or waves could adversely affect the sense of direction, navigation and communication of certain animals or insects: migratory birds, pigeons, certain kinds of fish (sharks, whales, rays) or certain insects (ants, butterflies and especially bees). He suggested that malfunctions induced by artificial electromagnetic waves might be one of the major causes – besides problems of exposure to chemicals – of repeated incidents of whales being washed up on beaches or the death or disappearance of bee colonies (colony collapse disorder) observed in past years.

17. The great multitude of scientific studies quoted during the hearing of experts should certainly prompt policymakers to reflect on their decisions and act accordingly. One final aspect mentioned during the hearing concerned the potentially pathogenic effects observed in livestock – calves, cows, horses, geese, etc. – following the installation of mobile telephone masts nearby: unaccountable deformities of new-born calves, cataracts, fertility problems.

18. In the face of fast-growing concerns and opposition in many Council of Europe member states, the response of top executives of electricity companies and mobile telephone operators is to deny that their industrial and commercial activities have any adverse effect on human health. At the hearing in Paris on 25 February 2011, the official representatives of French and European mobile telephone operators passionately argued that the official threshold values applicable in most countries in the world were adequate to protect human beings from the thermal effects of mobile telephones and that any biological effects, if these could be demonstrated, would not have any adverse effects on human health.

19. To back up their argument, the experts quoted the scientific assessments carried out by associations such as the International Committee on Non-Ionisation Radiation Protection (ICNIRP), a small private NGO near Munich, or by official organisations: the World Health Organization, the European Commission and a number of national protection agencies. It appears that these European and national organisations or international bodies have based their thinking on the threshold values and recommendations advocated by the ICNIRP when that private association was set up near Munich at the beginning of the 1990s.

20. Yet, at the same hearing, leaders of associations of citizens and representatives of the NGOs such as "Robin des toits", laid heavy emphasis on the numerous risks and harmful biological effects and related health problems which they believed to be linked to electromagnetic fields or waves from mobile telephony, relay antennas, high-voltage lines and other artificially generated electromagnetic fields, even at very low levels that were well below the officially applicable threshold values.

21. The representative of the European Environment Agency in Copenhagen, an official advisory body to the European Union, stressed the importance of the precautionary principle written into the European treaties and accordingly pointed to the need for effective preventive measures to protect human health and avoid painful health issues or scandals of the kind already experienced over asbestos, tobacco smoking, lead and PCBs (polychlorobiphenyls), to name but a few. He presented a convincing analysis of the scientific assessment methods currently used and the different levels of evidence to conclude, on the basis of the "Bioinitiative" scientific report and other more recent studies by the Ramazzini Institute in Bologna, that the indices or levels of proof were sufficient at this stage to prompt action by governments and international bodies.

22. Finally, another expert specialising in clinical medicine and oncology confirmed, on the basis of the findings of biological and clinical analysis of several hundred French patients describing themselves as "electrosensitive", that a syndrome of intolerance to electromagnetic fields (SIEMF) does exist and that those people are not feigning illness or suffering from psychiatric disorders.

5. Biological effects of electromagnetic fields in medicine

23. It has been established since the beginning of the 20th century that electromagnetic fields operating at various frequencies can have useful and beneficial effects in clinical medicine, whether for diagnosis or treatment.

24. Scientific developments since the Second World War have revealed that the human organism does not function solely on the basis of biological or biochemical cellular reactions but that humans are also electromagnetic beings. It is now well known that nerve cells communicate between one another using electrical impulses. The most powerful electrical signals detected in humans are those generated by nervous and muscular activity. In the case of the heart, which is the most important muscle group in the body, cardiac functioning is medically diagnosed by recording the electrical signals emitted by it (electrocardiogram – ECG). Again at the level of diagnosis, electroencephalography (EEG) allows non-invasive monitoring of the brain's electrical activity. The EEG has been widely used in the clinical areas of brain disorders, sleep pattern monitoring or confirmation of clinical death.

6. Therapeutic use of electric currents or electromagnetic waves

25. Without going into detail, the rapporteur wishes to point out that certain electrical currents or electromagnetic waves used at certain frequencies may have a perfectly beneficial effect in medical terms. There are a number of examples illustrating the therapeutic benefits of electrotherapy: clinical effects of

direct electric currents (electrolysis), clinical effects of external electrical impulses on the cardiac muscle (defibrillators, pacemakers), clinical effects of micro-currents generated by pulsed magnetic fields to improve healing in tissue repair and bone fractures, to mention only the best known of these non-ionising frequency band applications.

26. But while electrical and electromagnetic fields in certain frequency bands have fully beneficial effects, other non-ionising frequencies, be they sourced from extremely low frequencies, power lines or certain high frequency waves used in the fields of radar, telecommunications and mobile telephony, appear to have more or less potentially harmful biological effects on plants, insects and animals as well as the human body even when exposed to levels that are below the official threshold values.

7. Technological progress and economic growth at the expense of environment and health protection

27. It should be noted that the problem of electromagnetic fields or waves and the potential consequences for the environment and health has clear parallels with other current issues, such as the licensing of chemicals, pesticides, heavy metals or genetically modified organisms (GMOs), to mention only the best known examples. It is certain that one cause of public anxiety and mistrust of the communication efforts of official safety agencies and governments lies in the fact that a number of past health crises or scandals, such as those involving asbestos, contaminated blood, PCBs or dioxins, lead, tobacco smoking and more recently H1N1 flu were able to happen despite the work or even with the complicity of national or international agencies nominally responsible for environmental or health safety.

28. Indeed, it is in this connection that the Committee on the Environment, Agriculture and Local and Regional Affairs is currently working on the question of conflicts of interest and the urgent need for real independence of scientists involved in the official agencies tasked with evaluating the risks of products prior to licensing.

29. The rapporteur underlines in this context that it is most curious, to say the least, that the applicable official threshold values for limiting the health impact of extremely low frequency electromagnetic fields and high frequency waves were drawn up and proposed to international political institutions (WHO, European Commission, governments) by the ICNIRP, an NGO whose origin and structure are none too clear and which is furthermore suspected of having rather close links with the industries whose expansion is shaped by recommendations for maximum threshold values for the different frequencies of electromagnetic fields.

30. If most governments and safety agencies have merely contented themselves with replicating and adopting the safety recommendations advocated by the ICNIRP, this has essentially been for two reasons:

- in order not to impede the expansion of these new technologies with their promise of economic growth, technological progress and job creation;
- and also because the political decision-makers unfortunately still have little involvement in matters of assessing technological risks for the environment and health.

31. With regard to the frequently inconclusive if not contradictory findings of scientific research and studies on the possible risks of products, medicines or, in this case, electromagnetic fields, a number of comparative studies do seem to suggest a fairly strong correlation between the origin of their funding – private or public – and the findings of risk assessments, a manifestly unacceptable situation pointing to conflicts of interest which undermine the integrity, the genuine independence and the objectivity of scientific research.

32. Concerning the assessment of health risks resulting from mobile telephone radio frequencies, for example, in 2006 Swiss researchers from Bern University presented the findings of a systematic analysis of all research results and concluded that there was a strong correlation between how the research was funded and the results obtained: 33% of studies funded by industrial concerns conclude that exposure to mobile telephone radio frequencies has an effect on our organism. That figure rises to over 80% in studies carried out with public funding.

33. Accordingly, in this field and in others, one should call for genuine independence on the part of the expert appraisal agencies and for independent, multidisciplinary and properly balanced expert input. There must no longer be situations where whistleblowers are discriminated against and renowned scientists with critical opinions are excluded when experts are selected to sit on expert committees or no longer receive funding for their research.

8. Contending forces and arguments: the dispute over the incidence of biological effects and over threshold values

34. It seems obvious that the prime considerations for societies dependent on electricity, mobile telephony and telecommunication are the economic and financial parameters, hence profits and market shares. Understandably, in this context more stringent regulations and threshold values which ostensibly inhibit their business dealings are viewed with disfavour and forcefully resisted – as could be seen from the irritated and sometimes emotional statements of a representative of French mobile telephony at our committee's hearing for contrastive expert opinion.

35. The representatives of mobile telephony have for years espoused the same paradigm and the same line of argument, in which they invoke the soothing discourse of most international agencies and institutions. For example, the threshold values of 100 microtesla for low or high frequency electromagnetic fields and 41/42 volts/metre for the very high frequencies of mobile telephony on 900 megahertz (MHz) are claimed to be quite adequate for protecting the public against thermal effects. At very high levels, the radio frequency fields are plainly liable to produce harmful thermal effects on the human body, in the estimation of all parties moreover.

36. Of course there remains the very vexed question whether there are non-thermal or athermic, hence biological, consequences for the environment and the human body. The operators' representatives totally deny the existence of nefarious long-term biological effects for electromagnetic fields below the threshold values in force. To illustrate the nature and extent of these threshold values, let us mention by way of an example Article 5.1 of Directive 2004/40/EC of the European Parliament and of the Council of 29 April 2004 concerning the minimum standards for protecting workers: "... However, the long-term effects, including possible carcinogenic effects due to exposure to time-varying electric, magnetic and electromagnetic fields for which there is no conclusive scientific evidence establishing a causal relationship, are not addressed in this Directive. ..." (Introduction, paragraph 4).

37. So the protection of workers is only valid for averting thermal effects, and only in the short term!

38. Any potentially harmful biological effects are disregarded by the operators, agencies and official regulations, and to justify this attitude they abide by the contention that firstly, the ascertainment of a biological effect need not signify its being of a pathological character dangerous to the human constitution. Furthermore, they discern no absolutely conclusive scientific evidence of a cause and effect relationship between electromagnetic fields and radio frequencies and long-term pathological consequences of their non-thermal or athermic effects. And to emphasise these statements they invoke numerous scientific publications said to indicate no significant biological effect.

39. The operators' arguments on the whole can be summed up as follows:

- The threshold values recommended by the ICNIRP are values ensuring health security;
- Child mobile phone users are no more sensitive than adults;
- There are no significant biological effects apart from thermal effects;
- If there were any possibly harmful biological effects, moreover, there would be no scientifically acceptable mechanism of action to account for them.


9. Scientific studies and arguments pursued by associations and NGOs, by groupings of scientists, by the European Environment Agency and by the European Parliament

40. Serious scientific and medical studies revealing biological effects of a pathological nature have existed since the 1930s concerning radio frequencies and microwaves from radar installations. It also points out that harmful effects of protracted exposure to the low or very low frequency electromagnetic fields of electrical transmission lines or computer screens were observed already in the late 1970s, and the WHO's IARC (International Agency for Research on Cancer) classified these fields as "possibly carcinogenic" for humans (Group 2B) in 2001.

41. The rapporteur recalls the proven positive biological effects of certain medical applications (electrotherapies) of electromagnetic fields and microwaves at very low intensity. If there are such beneficial effects in certain frequency bands, then adverse biological effects on the human body should be just as much in the realm of plausibility or possibility.

42. Scientific studies concerning the negative effects of certain microwave frequencies on plants, insects and wildlife or farm animals are disturbing in more than one respect, and the scientific studies disclosing

potentially pathogenic biological effects on the human body are also important and not to be merely brushed aside.


 43. These studies are very numerous indeed: the 2007 "Bioinitiative" report analysed over 2 000 of them, and more were added by an important monograph published in 2010 by the Ramazzini Institute, the national institute for study and control of cancer and environmental diseases "Bernardo Ramazzini" in Bologna, Italy.


44. A significant number of top scientists and researchers have banded together in a dedicated international body entitled ICEMS, "International Commission for Electromagnetic Safety", in order to carry out independent research and recommend that the precautionary principle be applied in the matter. In 2006 (Benevento Resolution) and 2008 (Venice Resolution), these scientists published instructive resolutions calling for the adoption of far tougher new safety standards and rules.

45. Scientific studies disclose athermic or biological effects of electromagnetic fields or waves on cells, the nervous system, genetics, etc., which essentially fall into three categories: biological effects influencing the metabolism, sleep, the electrocardiogram profile; effects observed in experimentation on animals or in cell cultures (in vitro); effects emerging from epidemiological studies on prolonged use of mobile telephones or on living near high voltage power lines or base stations of relay antennas.

46. The term "biological effect" is used to refer to a physiological, biochemical or behavioural change brought about in a tissue or a cell in response to an external stimulus. Not every biological effect necessarily poses a serious threat to health; it may simply show the normal response of the cell, tissue or organism to that stimulus.

47. A medical or pathological biological effect, on the other hand, is an effect that may imperil the organism's normal functioning by causing more or less severe symptoms or pathologies. Precisely, a growing number of scientific studies made by teams of high-level academic researchers demonstrate the existence of potentially or definitely pathological biological effects.

 48. The rapporteur acknowledges that it is not possible within the compass of this report to analyse and summarise the findings of all these studies. A synopsis of the greater number of them (some 2 000) was produced in the "Bioinitiative" report, a report drawn up by 14 scientists of international standing who concurred, regarding mobile telephony and other radio frequencies, as to abnormally high incidence of brain tumours and acoustic neuroma, effects on the nervous system and cerebral functions, and effects on genes, cell stress proteins and the immune system. In this context, it has been observed for instance that radio frequency exposure can cause inflammatory and allergic reactions and impair the immune function even at levels well below the norms of exposure for the public.

 49. A major programme of research into the specific features of these effects such as genotoxicity of waves (REFLEX programme), funded by the European Commission and involving 12 European research teams, was launched and the results were made public in December 2004. The conclusions of the report were disturbing on several counts as the results bore out genotoxic effects of mobile telephone waves, and in particular greater frequency of chromosomal deletions and breakup of DNA molecules in different types of cultivated human and animal cells. In addition, stress protein synthesis was greatly increased and gene expression was modified in various types of cells.

50. Concerning the Interphone study, the biggest epidemiological survey carried out on mobile phone users and their exposure to glioma, meningioma, acoustic neuroma and tumours of the parotid gland after protracted use of their mobile telephones, the partial early results published on 18 May 2010 by IARC more than ten years after the commencement of the study point to profound disagreement between the different teams of researchers (16 teams from 13 countries) over the interpretation of these results. The study co-ordinator, Ms Elisabeth Cardis, summed up a kind of compromise by saying that the study did not reveal an increased risk, but one could not conclude that there was no risk because there were sufficient results suggesting a possible risk. Indeed, some results show that lasting intensive use very significantly increases the risks of glioma (40% and even 96% looking at ipsilateral use, that is to say where the glioma has appeared at the side of the head to which the telephone was held) and the meningioma risks (15%; 45% for ipsilateral use).

 51. The rapporteur feels that one of this epidemiological study's principal weaknesses lies in the fact that the period of mobile phone use analysed, extending until the early years of the 21st century, is probably too short at less than 10 years to reach altogether conclusive results given the period of latency and growth of cerebral tumours. In fact, ionising radiation (radioactivity) is recognised as a cause of brain cancer, but cases due to radioactivity rarely become apparent before 10 or 20 years of exposure.

52. The Interphone study, performed solely on adults, nevertheless raises serious speculation as to what will happen, after 15 or 20 years of intensive use, to the young adults, teenagers or even children who are currently the biggest users and in whom absorption of the radiation is still greater and more problematic.

53. The rapporteur would like to emphasise another side of the potential risks: while attention is focused at present on the radiation from mobile phones, and while he appeals for the wisest possible use of this device, by children and young people especially, it is inescapable that for some years there have been many other sources of electromagnetic fields and radio frequencies.

54. Whether outside or inside offices and dwellings, we are now exposed to a whole variety of electromagnetic frequencies on top of the chemical pollutants in the air that we breathe or accumulated in the food chain. Outdoors or indoors, we encounter the electromagnetic fields or the radio frequencies of the (nearby) electric power lines and of the base stations of GSM, UMTS and WiFi relay antennas or of, for example, radio or radar stations. Besides these, inside offices or private residences there is very often the radiation of cordless telephones (DECT), baby phones and other devices of wireless technology.

55. What is more, industrialists seek a further expansion of mobile telephony infrastructures for hosting the "fourth generation" 4G facility with the intention of delivering a secure, comprehensive broadband mobile system for the cordless modems of laptop computers, "smart" mobile phones and other portable backup devices for broadband mobile Internet access, games services, etc.

56. In Israel, the ministries concerned (environment, health, communication) fall back on the application of the precautionary principle, opposing the introduction of these new infrastructures on the ground that the effects of the irradiations should be verified before authorising new systems.

57. A question that always strongly arouses the European populations is the problem of where base stations and relay antennas are sited. In parallel to certain local or regional studies (mainly Swiss and German) describing the advent of health problems in farm animals after the installation of mobile telephone relay antennas near some farms, describing unaccountable problems of fertility, deformity, cataracts, etc., certain local or regional epidemiological studies, carried out by groups of scientists and doctors, have succeeded in also showing certain disease symptoms in residents of districts or villages near relay antennas installed a few months or years ago. These local studies were carried out in France, Germany, Switzerland, Austria, etc.

58. According to these epidemiological and also partly clinical studies, symptoms appearing or increasing some time after relay antennas were commissioned or after the beams emitted were intensified by raising the number or the power of the antennas were sleeping disorders, headaches, blood pressure problems, dizziness, skin trouble and allergies. The scientific value of such local studies is regularly queried by the operators and very often the security and regulatory bodies too, and so a most recent study released early in 2011 in a German medical publication (Umwelt-Medizin-Gesellschaft 1/2011) is nonetheless worthwhile and revealing, although the number of participants in the study (60 persons) remains quite small. These persons, from the locality of Rimbach in Bavaria, underwent analysis before a new relay antenna base station came into service in January 2004, then afterwards in July 2004, January 2005 and July 2005. In this study, as in similar epidemiological studies, the symptoms that increased or became aggravated after the station began operating were sleep disorders, headaches, allergies, dizziness and concentration problems.

59. The worth of this study spanning a year and a half is that the doctors and scientists could measure and determine significant changes in concentrations of certain stress-related or other hormones in urine samples. To sum up the results, there is a significant increase of adrenalin and noradrenalin over several months and a significant reduction of dopamine and phenylethylamine (PEA), changes indicating a state of chronic stress which, according to the authors of the study, caused the aforesaid heightened symptoms. The authors correlate the lowered PEA levels with impaired attention and hyperactivity of children, disorders which hugely increased in Germany over the years 1990-2004.

60. Here, too, the rapporteur stresses that some people may be more sensitive than others to electromagnetic radiation or waves. The research performed, for instance, by Professor Dominique Belpomme, President of the Association for Research and Treatments Against Cancer (ARTAC), on more than 200 people describing themselves as "electrosensitive" succeeded, with corroborative results of clinical and biological analyses, in proving that there was such a syndrome of intolerance to electromagnetic fields across the whole spectrum of frequencies. According to these results, not only proximity to the sources of electromagnetic emissions was influential, but also the time of exposure and often concomitant exposure to chemicals or to (heavy) metals present in human tissues. In this context, Sweden has granted sufferers from

✱ electromagnetic hypersensitivity the status of persons with reduced capacity so that they receive suitable protection.

61. In connection with the proven or potential risks of electromagnetic fields, it should also be noted that after a Lloyd's report, insurance companies tended to withhold coverage for risks linked with electromagnetic fields under civil liability policies, in the same way as, for example, genetically modified organisms or asbestos, which is hardly reassuring given the potential risks that stem from these electromagnetic fields.

62. Finally, the rapporteur wonders whether it might not be expedient and innovative to try and develop new wireless communication technologies, equally powerful but more energy-efficient and above all less problematic in terms of the environment and health than the present microwave-based wireless communication. Such systems, optical or optoelectronic communication technologies employing visible and infrared light, are reportedly being developed in the United States and Japan and could largely replace the present technologies. Should such changes in transmission and communication systems prove realistic, it would then be a case of technological and economic innovations not to be missed or obstructed.

10. Conclusions

63. The potentially harmful effects of electromagnetic fields on the environment and human health have not yet been fully elucidated and a number of scientific uncertainties continue to exist in that regard. Nevertheless, anxieties and fears remain in wide sectors of the population over the health hazards posed by the waves, and also of the demands voiced by high-level scientists, by groupings of doctors and by the associations of concerned citizens which abound in many Council of Europe member states.

64. The precautionary principle and the right to a healthy environment, particularly on behalf of children and future generations, must be key factors in all economic, technological and social development of society. In that regard, the Parliamentary Assembly has decided on several previous occasions (see Recommendation 1863 (2009) on environment and health: better prevention of environment-related health hazards and Recommendation 1959 (2011) on preventive health care policies in the Council of Europe member states) that coherent, effective preventive measures must be taken to protect the environment and human health.

✱ 65. After analysing the scientific studies available to date, and also following the hearings for expert opinions organised in the context of the Committee on the Environment, Agriculture and Local and Regional Affairs, there is sufficient evidence of potentially harmful effects of electromagnetic fields on fauna, flora and human health to react and to guard against potentially serious environmental and health hazards.

66. That was moreover already the case in 1999 and 2009 when the European Parliament overwhelmingly passed resolutions upholding the precautionary principle and efficient preventive actions vis-à-vis the harmful effects of electromagnetic fields, in particular by substantially lowering the exposure thresholds for workers and the general public according to the ALARA principle, by restoring genuine independence of research in that field, and through a policy of enhanced information and transparency towards the anxious populations (see European Parliament Resolution of 2 April 2009 on health concerns associated with electromagnetic fields, 2008/2211 INI).

✱ 67. Lastly, the Assembly could endorse the analyses and warnings issued first in September 2007, then in September 2009, by the European Environment Agency (EEA) concerning the health hazards of electromagnetic fields, mobile telephony and not least mobile phones. According to the EEA, there are sufficient signs or levels of scientific evidence of harmful biological effects to invoke the application of the precautionary principle and of effective, urgent preventive measures.



THIS IS THE
RESOLUTION
THAT WAS
PASSED TODAY,
MAY 27, 2011

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Provisional edition

The potential dangers of electromagnetic fields and their effect on the environment

Resolution 1815 (2011)¹

1. The Parliamentary Assembly has repeatedly stressed the importance of states' commitment to preserving the environment and environmental health, as set out in many charters, conventions, declarations and protocols since the United Nations Conference on the Human Environment and the Stockholm Declaration (Stockholm, 1972). The Assembly refers to its past work in this field, namely Recommendation 1863 (2009) on environment and health, Recommendation 1947 (2010) on noise and light pollution, and more generally, Recommendation 1885 (2009) on drafting an additional protocol to the European Convention on Human Rights concerning the right to a healthy environment and Recommendation 1430 (1999) on access to information, public participation in environmental decision-making and access to justice – implementation of the Aarhus Convention.

2. The potential health effects of the very low frequency of electromagnetic fields surrounding power lines and electrical devices are the subject of ongoing research and a significant amount of public debate. According to the World Health Organisation, electromagnetic fields of all frequencies represent one of the most common and fastest growing environmental influences, about which anxiety and speculation are spreading. All populations are now exposed to varying degrees of electromagnetic fields, the levels of which will continue to increase as technology advances.

3. Mobile telephony has become commonplace around the world. This wireless technology relies upon an extensive network of fixed antennas, or base stations, relaying information with radio frequency signals. Over 1.4 million base stations exist worldwide and the number is increasing significantly with the introduction of third generation technology. Other wireless networks that allow high-speed internet access and services, such as wireless local area networks, are also increasingly common in homes, offices and many public areas (airports, schools, residential and urban areas). As the number of base stations and local wireless networks increases, so does the radio frequency exposure of the population.

4. While electrical and electromagnetic fields in certain frequency bands have wholly beneficial effects which are applied in medicine, other non-ionising frequencies, be they sourced from extremely low frequencies, power lines or certain high frequency waves used in the fields of radar, telecommunications and mobile telephony, appear to have more or less potentially harmful, non-thermal, biological effects on plants, insects and animals as well as the human body even when exposed to levels that are below the official threshold values.

5. As regards standards or threshold values for emissions of electromagnetic fields of all types and frequencies, the Assembly recommends that the ALARA or "as low as reasonably achievable" principle is applied, covering both the so-called thermal effects and the athermic or biological effects of electromagnetic emissions or radiation. Moreover, the precautionary principle should be applicable when scientific evaluation does not allow the risk to be determined with sufficient certainty, especially given the context of growing exposure of the population, including particularly vulnerable groups

extent of growing exposure of the population, including particularly vulnerable groups such as young people and children, which could lead to extremely high human and economic costs of inaction if early warnings are neglected.

6. The Assembly regrets that, despite calls for the respect of the precautionary principle and despite all the recommendations, declarations and a number of statutory and legislative advances, there is still a lack of reaction to known or emerging environmental and health risks and virtually systematic delays in adopting and implementing effective preventive measures. Waiting for high levels of scientific and clinical proof before taking action to prevent well-known risks can lead to very high health and economic costs, as was the case with asbestos, leaded petrol and tobacco.

7. Moreover, the Assembly notes that the problem of electromagnetic fields or waves and the potential consequences for the environment and health has clear parallels with other current issues, such as the licensing of medication, chemicals, pesticides, heavy metals or genetically modified organisms. It therefore highlights that the issue of independence and credibility of scientific expertise is crucial to accomplish a transparent and balanced assessment of potential negative impacts on the environment and human health.

8. In light of the above considerations, the Assembly recommends that the member states of the Council of Europe:

8.1. in general terms:

8.1.1. take all reasonable measures to reduce exposure to electromagnetic fields, especially to radio frequencies from mobile phones, and particularly the exposure to children and young people who seem to be most at risk from head tumours;

8.1.2. reconsider the scientific basis for the present electromagnetic fields exposure standards set by the International Commission on Non-Ionising Radiation Protection, which have serious limitations and apply "as low as reasonably achievable" (ALARA) principles, covering both thermal effects and the athermic or biological effects of electromagnetic emissions or radiation;

8.1.3. put in place information and awareness-raising campaigns on the risks of potentially harmful long-term biological effects on the environment and on human health, especially targeting children, teenagers and young people of reproductive age;

8.1.4. pay particular attention to "electrosensitive" persons suffering from a syndrome of intolerance to electromagnetic fields and introduce special measures to protect them, including the creation of wave-free areas not covered by the wireless network;

8.1.5. in order to reduce costs, save energy, and protect the environment and human health, step up research on new types of antennas and mobile phone and DECT-type devices, and encourage research to develop telecommunication based on other technologies which are just as efficient but have less negative effects on the environment and health;

8.2. concerning the private use of mobile phones, DECT phones, WiFi, WLAN and WIMAX for computers and other wireless devices such as baby phones:

8.2.1. set preventive thresholds for levels of long-term exposure to microwaves in all indoor areas, in accordance with the precautionary principle, not exceeding 0.6 volts per metre, and in the medium term to reduce it to 0.2 volts per metre;

8.2.2. undertake appropriate risk-assessment procedures for all new types of device prior to licensing;

8.2.3. introduce clear labelling indicating the presence of microwaves or electromagnetic fields, the transmitting power or the specific absorption rate (SAR) of the device and any health risks connected with its use;

8.2.4. raise awareness on potential health risks of DECT-type wireless telephones, baby monitors and other domestic appliances which emit continuous pulse waves, if all electrical equipment is left permanently on standby, and recommend the use of wired, fixed telephones at home or, failing that, models which do not permanently emit pulse waves.

~~emitting static, magnetic fields or radio frequency waves,~~

8.3. concerning the protection of children:

8.3.1. develop within different ministries (education, environment and health) targeted information campaigns aimed at teachers, parents and children to alert them to the specific risks of early, ill-considered and prolonged use of mobiles and other devices emitting microwaves;

8.3.2. for children in general, and particularly in schools and classrooms, give preference to wired Internet connections, and strictly regulate the use of mobile phones by schoolchildren on school premises;

8.4. concerning the planning of electric power lines and relay antenna base stations:

8.4.1. introduce town planning measures to keep high-voltage power lines and other electric installations at a safe distance from dwellings;

8.4.2. apply strict safety standards for sound electric systems in new dwellings;

8.4.3. reduce threshold values for relay antennas in accordance with the ALARA principle and install systems for comprehensive and continuous monitoring of all antennas;

8.4.4. determine the sites of any new GSM, UMTS, WiFi or WIMAX antennas not solely according to the operators' interests but in consultation with local and regional government officials, local residents and associations of concerned citizens;

8.5. concerning risk assessment and precautions:

8.5.1. make risk assessment more prevention oriented;

8.5.2. improve risk-assessment standards and quality by creating a standard risk scale, making the indication of the risk level mandatory, commissioning several risk hypotheses and considering compatibility with real life conditions;

8.5.3. pay heed to and protect "early warning" scientists;

8.5.4. formulate a human rights oriented definition of the precautionary and ALARA principles;

8.5.5. increase public funding of independent research, *inter alia* through grants from industry and taxation of products which are the subject of public research studies to evaluate health risks;

8.5.6. create independent commissions for the allocation of public funds;

8.5.7. make the transparency of lobby groups mandatory;

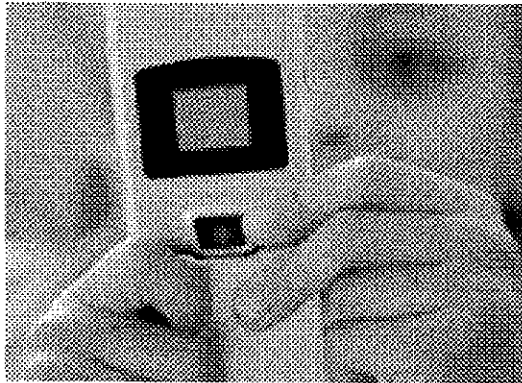
8.5.8. promote pluralist and contradictory debates between all stakeholders, including civil society (Aarhus Convention).

¹ Text adopted by the Standing Committee, acting on behalf of the Assembly, on 27 May 2011 (see Doc. 12608, report of the Committee on the Environment, Agriculture and Local and Regional Affairs, rapporteur: Mr Huss).

TO: SD 42 TRUSTEES. MAY 31, 2011
Since the Council of Europe's Report
and Resolutions, the W.H.O. has
changed its position.

Cell Phone Radiation 'Possibly Carcinogenic,' Experts Say

The Huffington Post Catherine Pearson First Posted: 05/31/11
01:07 PM ET Updated: 05/31/11 02:00 PM ET



Wifi is radiating the
whole body, not just
the head. It is MORE
exposure than a cell
phone because of the
continuous BEACON SIGNAL

A group of experts from the World Health Organization has classified the radiation emitted from cell phones as a possible cancer-causing agent, concluding that cell phones could be associated with an increased risk for glioma, a type of brain tumor.

The World Health Organization's International Agency for Research on Cancer (IARC) convened a group of 31 scientists from 14 countries to look at the health risks associated with radiofrequency electromagnetic fields. They spent a week in Lyon, France, reviewing hundreds of peer-reviewed scientific studies on the issue.

"The evidence, while still accumulating, is strong enough to support a conclusion and the 2B classification," Dr. Jonathan Samet, a University of Southern California scientist who chaired the working group, said in a statement.

The IARC classifies carcinogenic agents according to different degrees, from "carcinogenic to humans" to "probably not carcinogenic." Group 2B -- the group that will now include radiofrequency electromagnetic fields -- is defined as "possibly carcinogenic to humans." It also contains lead, DDT, engine exhaust, and chloroform, among other substances.

Dr. Samet explained that the classification means that there could be some risk -- a risk that warrants continued study. The IARC group did not quantify the radiation risk of cell phone use, but did consider a study that showed the highest risk of brain tumors among the heaviest users.

"Given the potential consequences for public health on this classification and findings, it is important that additional research be conducted into the long-term, heavy use of mobile phones," IARC Director Christopher Wild said.

Until then, measures should be taken to reduce exposure, including use of hands-free devices or texting, Wild added. Many cell phone manufacturers put out safety manuals that encourage users to keep the devices several millimeters from their body.

The IARC isn't the only group looking at cell phone use and cancer risk. As CNN's Dr. Sanjay Gupta reported last week, several ongoing studies are looking at both long-term effects and exposure amounts. The issue has widespread implications, with the WHO estimating that some 5 billion people use cell phones around the globe.

Please protect children from this dangerous radiation.

Sincerely,

Samantha Boutet.



To: Board of Education

From: Board Chair
Ken Clarkson

Re: **ORDERING OF AGENDA**

Date: June 8, 2011
(Public Board Meeting)

Decision

RECOMMENDATION:

THAT the Agenda be ordered as circulated.



To: Board of Education

From: Board Chair
Ken Clarkson

Re: **CONFIRMATION OF MINUTES**

Date: June 8, 2011
(Public Board Meeting)

Decision

RECOMMENDATION:

THAT the Minutes of the May 25, 2011 Public Board Meeting be approved as circulated.

Attachment



**PUBLIC MINUTES OF THE
BOARD OF EDUCATION MEETING
Wednesday, May 25, 2011 (6:00 PM)
DEO Board Room**

IN ATTENDANCE:

BOARD MEMBERS:

Board Chair – Ken Clarkson
Trustee – Susan Carr
Trustee – Mike Huber
Trustee – Dave Rempel
Trustee – Stepan Vdovine
Trustee – Kathie Ward

STAFF:

Superintendent – Jan Unwin
Secretary Treasurer – Wayne Jefferson
Deputy Superintendent – David Vandergugten
Assistant Secretary Treasurer – Peter Bullock
Communications/Community Relations – Seamus Nesling
Executive Assistant, Recorder – Tracy Orobko

ABSENT:

Trustee – Eleanor Palis

GUEST:

Director of Facilities – Rick Delorme

A. OPENING PROCEDURES

Call to Order

The meeting was called to order at 6:00 p.m.

The Chair welcomed and thanked everyone for attending.

1. Correspondence

- Hon. Minister George Abbott – Ministry of Education
- Christian Lavoie, Director – Health Canada
- Elementary Band

Moved: Trustee Rempel

Seconded: Trustee Carr

THAT the Board receive all correspondence for information

CARRIED

2. Ordering of Agenda

Moved: Trustee Rempel

Seconded: Trustee Carr

Additions:

Deputy Superintendent Information Item: Distributed Learning Audit

Trustee Question: Health Canada – Trustee Vdovine

Corrections:

Dani Zagar, Global Studies Trip to Africa Presentation – cancelled due to illness

THAT the Agenda be ordered as amended.

CARRIED

The Chair asked the audience if there is anyone else who would like to speak to the Agenda.

B. CONFIRMATION OF MINUTES

1. May 11, 2011 Public Meeting Minutes

Moved: Trustee Rempel

Seconded: Trustee Ward

THAT the Minutes of the May 11, 2011 Public Board Meeting be approved as circulated.

CARRIED

C. PRESENTATIONS

Rory Payment - Laptop Inquiry Project

Rory Payment, Facilitator Information Technology, introduced three students from Alouette Elementary school: Sophia Dobischok, Kevin Tedder and Taylor Selle, who provided a presentation on their inquiry project on learning disabilities. Collectively, they researched their topic, gathered, analyzed and evaluated information assembling all into one final presentation.

Other key points of the inquiry project included:

- Over 200 groups of students mostly in grades 6 and 7
- Students plan for needed resources, division of labour, and apply skills to real world problems by collecting, analyzing and evaluating the data needed to prepare an overall synopsis and presentation
- The inquiry project highlights the value of providing students with laptops
- Technological resources used for projects include IChat, Iweb, web building/design and powerpoint in addition to maintaining an electronic log book highlighting daily goals and areas of improvement.

The Board Chair opened the floor to questions.

A question was asked as to how the students decided to work together to which they responded that each student has his/her own strengths: Kevin – technology; Taylor – personal connections; and Sophia researched and organized.

A question was asked as to how the laptop learning differs from prior learning to which the students responded they are able to be more creative in presenting projects.

A question was asked as if the students think it will be easier to use and work with technology as they grow to which all agreed.

The students thanked all of those present who took the time to answer their inquiry questions forming part of their project. Mr. Payment reminded everyone to visit the website:

[www.sd42.ca/Programs/laptop program/](http://www.sd42.ca/Programs/laptop_program/)

D. DELEGATIONS

E. CHAIR REPORT

F. DEFERRED ITEMS

G. TRUSTEE MOTIONS

H. CHIEF EXECUTIVE OFFICER'S REPORT

1. Decision Items

- a) Superintendent of Schools**
- b) Deputy Superintendent**
- c) Secretary Treasurer**

PMSS Artificial Turf Field – Operating Agreement

The Secretary Treasurer reported on the outcome of several meetings involving members of the Joint Use of Public Facilities committee including two secondary Principals. The agreement is a celebration of community members working together. An addendum was created so there would be no misunderstandings of field use and will form part of the formal agreement. If the same contemplation occurs with field use at Samuel Robertson Technical Secondary ("SRT"), a procedure and template has been created. It has been the importance of everyone to meet all users' needs.

Moved: Trustee Rempel

Seconded: Trustee Ward

A question was asked if it was brought to the Parks Board for discussion to which it was confirmed correct. Council has played a role in the process.

A question was asked if the Addendum sets a precedent for SRT and Westview Secondary School ("WSS") whereby the agreements will be derived upon a particular group bringing forward a change to which the Secretary Treasurer responded this process will break the ground of acceptance. WSS is part of the consortium of three fields. The Addendum will lend itself if there is interest. This action was specifically brought forward to address football needs. All users have reviewed and provided compromises.

A question was asked if the Addendum has been signed by the City of Pitt Meadows yet to which the Secretary Treasurer confirmed it has not. However, it has been vetted and well received.

THAT the Board approve the Pitt Meadows Secondary Artificial Turf Field operating Agreement (Addendum No. 1) and the Board's Chairperson and the Secretary Treasurer be directed to execute the agreement on behalf of the Board.

CARRIED

2. Information Items

- a) Superintendent of Schools**
- b) Deputy Superintendent**

Deputy Superintendent Vandergugten referred to the self-explanatory handout regarding the Distributed Learning Ministry of Education audit for further clarification to his last report.

- c) Secretary Treasurer**

Ministry of Education – New Funding and Property Loss Changes

The Secretary Treasurer reported on the Schools Protection Plan ("SPP") whereby a decision was made in Victoria to download premiums onto school districts. SD42's portion resulted in \$63K. After an outcry from school districts, the Government reacted by reviewing holdback funds and released \$15 per student per school district resulting in a total of \$210,518 for SD42. When the Ministry created the pressure, they also found a way to locate pressure release. This was a good resolve to change the practice around SPP.

A question was asked if SD42 received holdback funds last year to which Mr. Bullock confirmed same in the approximate amount of \$700K. There is a potential to receive another residual holdback in late May or June.

Moved: Trustee Rempel

Seconded: Trustee Carr

THAT the Board receive the Secretary Treasurer's report on additional holdback funding of \$15 per student and the increased cost of the School Protection Plan for information.

CARRIED

Declining Enrolment / Facilities Utilization Report

The Secretary Treasurer provided a report outlining the budget building process and the effect of declining enrollment. In terms of a loss of students, it is not as great as originally anticipated.

Assistant Secretary Treasurer, Peter Bullock, provided a report on declining enrolment and the process of forecasting same: demographic Barager, Ministry forecasts, and use of locally known knowledge. Each of the three tools indicates a common theme in Maple Ridge-Pitt Meadows: enrolment is inclined to decline until 2015 where it will then level off. It will take until 2020 to get to the current 2010 levels.

Facilities are reviewed on an annual basis. Areas of growth include East and North Maple Ridge areas. Staff is addressing the capital plan reviewing existing facilities and ensuring SD42 is maximizing the use of same. Rick Delorme, Director of Facilities, has conducted and continuously reviews facility usage and provided an overview of the revised handout titled '2011 Secondary Facilities Summary Report'. SD42 is obtaining nine (9) modular units from the Ministry: Two 2 in the West and the balance in the East. A determination of needing a new elementary school in the East has been made. Staff is trying to demonstrate to the Ministry of Education, that instead of purchasing seven (7) modulars, SD42 can use portables allocating money saved from modulars to build a new elementary school. The Ministry agrees with the principle and staff is awaiting confirmation.

Differences between modulars and portables was discussed. Portables are in surplus, are for shorter term uses, more cost effective to install. Modulars are based on a 20–40 year lifespan; washrooms; larger space. Seven (7) modulars in the East would cost \$2.8 million; seven (7) portables would cost \$220K.

A question was asked if portables are in use only at Maple Ridge Secondary School ("MRSS") and Samuel Robertson Technical Secondary School ("SRT") to which it was confirmed MRSS is not using portables; SRT is the only secondary school using portables.

Mr. Delorme has been negotiating with the Ministry in terms of recognizing installation and set up costs; and the need for permanent space in Albion. Staff believes it has received full support for the new Albion elementary and are waiting for an announcement.

Moved: Trustee Rempel

Seconded: Trustee Ward

THAT the Board receive the Secretary Treasurer's reports on declining enrolment and facilities utilization for information.

CARRIED

School Closures – Transition Report

The Secretary Treasurer provided a brief overview of the financial impact of school closures. The Superintendent reported on the promise of following up with students and parents after the Mt. Crescent

and Riverside Elementary schools closed. Surveys were sent to parents and staff and disappointment was expressed at the few who responded. Survey results received indicated students strongly were adapting to the school, making friends and upon touring the schools, is hard pressed to determine which kids were which. Parents have had a harder time to adjust.

The Secretary Treasurer was asked to provide actual costs incurred with the startup at Riverside Centre and structural change costs for Mt. Crescent Elementary for future Board reference. The Secretary Treasurer referred to the School District's operating budget and the use of Annual Facilities Grant ("AFG") funds. Closing two (2) schools provides an ongoing savings in addition to selling portables. Mr. Delorme confirmed AFG can only be used for maintaining existing facilities. There is a small criteria you can use AFG funds - does not affect capital funding. Money spent did not take away from any other operations.

The Secretary Treasurer referred to the two alternate space use and the generating of revenue for same: TOPIA rental, sale of 31 portables; energy savings alone is \$150K. Efficiencies have been gained in merging three units into Riverside Centre and there have been savings of approximately \$325K each school, per year. Year after year – continued savings.

Moved: Trustee Huber

Seconded: Trustee Rempel

THAT the Board request the Secretary Treasurer to report back to the Board, all costs and savings associated with the transition and school closure process by the June 28, 2011 Board Meeting.

CARRIED

The chair called for a vote to the original motion.

Moved: Trustee Rempel

Seconded: Trustee Carr

THAT the Board receive the 2010 School Closure Transition Report for information.

CARRIED

Off-Leash Dog Park Update

The Secretary Treasurer referred to the report attached with the Agenda. According to the most recent information provided by the General Manager, Community Development Parks and Recreation Services, there have been no recent reports sent to either the Commission or Council. The implementation of the Off-Leash Dog Park program appears to be working as planned.

Moved: Trustee Rempel

Seconded: Trustee Vdovine

THAT the Board receive the Secretary Treasurer's updated report on off-leash dog parks at Davie Jones Elementary and Laity View Elementary for information.

CARRIED

I. COMMITTEE BUSINESS

J. QUESTION PERIOD

In reference to the proposed visit from the Minister of Education, Trustee Huber invited partner groups to share dialogue asking for feedback on areas of concerns via letters and emails sharing concerns. The more information the Board has to share, the more valuable the meeting will be.

Trustee Vdovine commented on the correspondence received from Health Canada. The Superintendent and Secretary Treasurer confirmed it is the School District's obligation to identify any health risks and to

delegate same to SD42's Health and Safety Officer who has confirmed there has been no identified risks at this time. Health and safety of students and staff is of upmost importance and SD42 has a standing protocol with Fraser Health.

K. TRUSTEE REPORTS

Municipal Advisory & Accessibility

Trustee Huber reminded everyone of the Rick Hansen 25 year anniversary in May 2012. The School District has been a huge supporter of events and this may be a great opportunity for teachers, students and staff to get involved.

Trustee Rempel reminded everyone of the Tzu Chi Foundation Celebration on June 2nd at Eric Langton from 3:30 – 5:30 p.m. RSVP's can be sent to Louisa at Kanaka Creek Elementary.

L. OTHER BUSINESS

M. ADJOURNMENT

Moved: Trustee Rempel

Seconded: Trustee Carr

THAT the meeting of the Board be adjourned at 7:38 p.m.

CARRIED

Ken Clarkson, Chairperson

Wayne Jefferson, Secretary Treasurer



To: Board of Education

From: Board Chair
Ken Clarkson

Re: **PRESENTATION**

Date: June 8, 2011
(Public Board Meeting)

Information

1. Community Literacy Plan:
Bruce Grady, District Principal and
David Vandergugten, Deputy Superintendent

RECOMMENDATION:

THAT the Board receive the presentations for information.



To: Board of Education

From: Secretary Treasurer
Wayne Jefferson

Re: **TEMPORARY BORROWING
RESOLUTION**

Date: June 8, 2011
(Public Board Meeting)

Decision

RECOMMENDATION:

THAT the Board approve the following borrowing resolution:

WHEREAS Section 139 of the *School Act* and Regulation 10, provides that a Board may by resolution, with the approval of the Minister, borrow from time to time for a period not exceeding six months for purposes other than capital expenditures, by way of a temporary loan, such sums as the Board may deem necessary to meet current operating and debt services expenditures:

THEREFORE BE IT RESOLVED, that in accordance with the provisions of Section 139 of the *School Act* and Regulation 10, the Board of Education of School District No. 42 (Maple Ridge-Pitt Meadows) authorize the Secretary Treasurer to request the approval of the Minister of Education for the borrowing of an amount not to exceed \$6,500,000. These funds would be in the form of a \$2,500,000 line of credit and additional funds of \$4,000,000 if required to meet current operating and debt services expenditures, but all money so borrowed shall be repaid not later than the 30th day of November, 2011.

Attachment

BOARD RESOLUTION RE TEMPORARY BORROWING - OPERATING

**THE BOARD OF EDUCATION OF SCHOOL DISTRICT NO. 42
(MAPLE RIDGE-PITT MEADOWS)**

WHEREAS Section 139 of the *School Act* and Regulation 10, provides that a Board may by resolution, with the approval of the Minister, borrow from time to time for a period not exceeding six months for purposes other than capital expenditures, by way of a temporary loan, such sums as the Board may deem necessary to meet current operating and debt services expenditures:

THEREFORE, BE IT RESOLVED, that in accordance with the provisions of Section 139 of the *School Act* and Regulation 10, the Board of Education of School District No. 42 (Maple Ridge-Pitt Meadows) authorize the Secretary Treasurer to request the approval of the Minister of Education for the borrowing of an amount not to exceed \$6,500,000. These funds would be in the form of a \$2,500,000 line of credit and additional funds of \$4,000,000 if required to meet current operating and debt services expenditures, but all money so borrowed shall be repaid not later than the 30th day of November, 2011.

Approved by the Board of Education at a Public Board Meeting held on June 8, 2011.

Wayne A. Jefferson
Secretary Treasurer

Date



To: Board of Education

From: Board Chair
Ken Clarkson

Re: **PROPOSED DRAFT POLICIES:
STAKEHOLDERS AND
SENIOR TEAM FEEDBACK**

Date June 8, 2011
(Public Board Meeting)

Decision

BACKGROUND/RATIONALE:

At the last Board Policy Development Committee meeting on April 27, 2011, the Committee recommended the attached draft policies (5701 and 6600) be sent out by email to the stakeholders and Senior Team for feedback.

Tracy Orobko, Executive Assistant, transmitted an email on April 29, 2011 to the following parties:

CUPE: Leslie Franklin, President

MRTA: George Serra, President

MRPVPA: Shannon Derinzy, President

DPAC: Todd Hill, Co-Chairperson
Michelle Neale, Co-Chairperson

SR. TEAM: Jan Unwin, Superintendent
Wayne Jefferson, Secretary Treasurer
Laurie Meston, Deputy Superintendent
Stewart Sonne, Director of Secondary & Adult Education
David Vandergugten, Dir. of Instr., Advancing Tech. in Education
Harry Dhillon, Acting Director, Human Resources

Over the past thirty (30) days, Tracy Orobko has not received any responses for consideration by the Committee.

RECOMMENDATION:

THAT the Board Policy Development Committee ("Committee") recommends policies 5701 and 6600, as presented to the Committee at its June 8, 2011 meeting be received by the Board for continuation with the consultation process; and

THAT the Board approve the policies for thirty (30) day public consultation on the School District website.

**Due to the volume of documents, the policies have not been provided this evening and will be posted to the website if approved. Members of the public wishing to obtain a copy may contact Tracy Orobko.*



SD 42 POLICY: 5701

RECORDS AND INFORMATION MANAGEMENT - GENERAL

The Board is committed to establishing and maintaining a Records Management Program which will facilitate the retrieval, retention, long-term preservation and destruction of records in accordance with the District's legal, administrative and operational obligations.

The District recognizes the value of retaining certain documents for future reference and historical purposes. Likewise, it is recognized that certain documents have little or no value after certain periods of time. Further, the District recognizes that federal and provincial statutes require that certain documents be retained for specific periods for audit and other purposes.

While this policy provides for minimum periods of retention of documents, it is recognized that statutes as may be enacted may dictate other periods of time and provisions and take precedence over the time periods specified in the regulations that accompany this policy.

A record is "all recorded information regardless of physical format, which is received, created, deposited, or held by or in any local public body. Records include books, documents, maps, drawings, photographs, letters, vouchers, papers and any other thing on which information is recorded or stored by graphic, electronic, mechanical or other means, but does not include computer programs or any other mechanism that produces records." (Freedom of Information and Protection of Privacy Legislation).

Administration is authorized to implement a standardized method of records management through the use of a District-wide Classification System/Retention Schedule. As per Procedure 5701.1. The retention periods will be established in accordance with federal and provincial regulations and approved Board policies. The authority for the destruction of records will lie within the Classification System/Retention Schedule.

Retention/disposal of documents not listed and not required to be retained for a period specified by law should be taken into account for their future value for legal, historical, or statistical purposes and the availability of similar data elsewhere.

The Records Centre will operate as the official District facility for the storage of all semi-active and inactive District records.

Administration is authorized to establish fees for the retrieval and reproduction of records retained in the District.

The Secretary Treasurer or designate will be responsible for providing records and information management and liaison throughout the District.

APPROVED:



SD 42 POLICY: 6600

NAMING OF SCHOOL FACILITIES

1. BELIEF STATEMENTS

The Board believes that the naming or re-naming of schools and district facilities should be undertaken following consultation with the affected constituents. The process of naming or re-naming a school or district facility should involve a broadly based constituency consultation. The school or district facility is the focus of the whole community and stakeholders for activities and identity. By naming the school or district facility in recognition of the community, the School District encourages community pride and involvement. Except where otherwise determined by the Board, new schools or district facilities will be named in reference to historical, geographical or operational characteristics. Special consideration will be given to names that will have significant meaning to students and members of the community.

Wherever possible, if the facility is to be named in honour of a person, the consent of the individual will be obtained. If it is to be named after a deceased person, except for a person of distinction, the close surviving relatives should approve.

2. PROCESS

The process of naming a new building will begin as soon as possible after the school site has been purchased and where construction is scheduled in the Board's current capital plan.

When an existing facility undergoes a major change of use, the Board will consider the opportunity to reflect the impact on the constituents and have a change of name for the facility.

An effort will be made to avoid confusion that may be caused by having schools with similar names.

In all cases, the final decision on naming a School District facility will be made by the Board.

APPROVED:

RECORD

2010-2011

Pursuant to provisions of 72 (1) of the *School Act*, the following report is a general statement of: (a) matters discussed and (b) the general nature of decisions resolved at the following meetings from which persons other than trustees or officers of the Board, or both were excluded:

May 25, 2011

Call to Order
Motion of Exclusion
Correspondence
Ordering of Agenda
Confirmation of Minutes – May 11, 2011
Chair Report
Motion to Extend
Motion to Recess
Motion to Reconvene
Secretary Treasurer Decision Item
Question Period
Trustee Reports
Other Business
Adjournment

Meeting called to order at 4:05 p.m.
Approved as circulated
Received for information
Approved as amended
Approved as circulated
Received for information
Meeting extended by 10 minutes
Meeting recessed at 4:47 p.m.
Meeting called to order at 7:43 p.m.
Approved as amended
Received for Information
No Trustee Reports
No Other Business
Approved and adjourned at 8:22 p.m.