



## Office of Hon Anne Tolley

**MP for East Coast**

Minister of Education

Minister Responsible for the Education Review Office

29 SEP 2011

Rob Hamilton  
Chairperson  
Victoria Avenue School Board of Trustees  
282 Victoria Avenue  
Remuera  
Auckland 1050

Dear Rob Hamilton

Thank you for your letter dated 5 September 2011 concerning Mrs Justine Baker's correspondence to the Board of Trustees about the safety of Wi-Fi at Victoria Avenue School.

The Ministry of Education has recently sought advice from the National Radiation Laboratory (part of the New Zealand Ministry of Health) and I have attached a copy of a letter from the Ministry of Health which states that Wi-Fi does not pose a risk to staff or students in areas where it is used.

In view of this advice, the Ministry is satisfied that Wi-Fi equipment is safe in schools but will continue to actively monitor any developments in this area.

For further information about safe use of Wi-Fi, please visit the National Radiation Laboratory website <http://www.nrl.moh.govt.nz/faq/wifi.asp>. This website should address your particular concerns.

If you wish to discuss the safety of Wi-Fi in schools directly with a Ministry representative, please contact Kris Nilsen, ICT Advisor (04) 463 8862 or email [kris.nilsen@minedu.govt.nz](mailto:kris.nilsen@minedu.govt.nz)

Yours sincerely

Hon Anne Tolley  
Minister of Education

Enc

20 September 2011

Kris Nilsen  
ICT Advisor  
Ministry of Education  
P O Box 1666  
WELLINGTON 6140

133 Molesworth St  
P.O. Box 5013  
Wellington 6145  
New Zealand  
Phone (04) 496 2000  
Fax (04) 496 2340

PH20-19-1

Ref. No \_\_\_\_\_

Dear Kris

### **Safety of WiFi in schools**

I am writing to confirm that in the Ministry of Health's view the installation of WiFi equipment in schools does not pose a health risk to staff or students in the areas where it is used.

Measurements in New Zealand and overseas show that exposures to radiofrequency fields from WiFi equipment are extremely low, amounting to tiny fractions of the limit allowed for the public in the New Zealand radiofrequency field exposure Standard. Exposures are low for three main reasons:

1. the low power of the WiFi transmitter;
2. the rapid decrease in signal strength with increasing distance from the transmitter;
3. the fact that no signal is transmitted when no data is being transferred (except for brief "beacon signals").

Although no special precautions are needed when using WiFi equipment (beyond any recommended by the equipment manufacturer), if parents or staff do have concerns and wish to reduce their exposures, they can take simple steps to do so:

- place the wireless access point up on a high shelf or away from where people might sit and work; and/or
- when working with a WiFi-enabled device, place it on a table rather than directly on the lap.

I understand that two recent publications have aroused some concerns.

***Council of Europe report on electromagnetic fields:*** This report and the explanatory memorandum does not include any new scientific findings, and the conclusions and recommendations are based on an extremely limited selection of the available data. A lot of research has been published in this area, as well as many good summary reviews by national and international health bodies\*. None of these is mentioned by the Council of Europe report, and none has suggested that exposure limits of the type recommended in New Zealand are inadequate. The

---

\* see, for example, reviews listed at the bottom of the table at <http://www.nrl.moh.govt.nz/faq/cellphonesandcellsites.asp#info>

Council of Europe recommendation to take reasonable measures to reduce exposures can be readily achieved by following the steps recommended above.

***International Agency for Research on Cancer (IARC) classification of radiofrequency fields:*** IARC recently classified radiofrequency fields as a "possible" carcinogen (Class 2B). This classification does not mean that a risk has been established, but that there is data suggesting the possibility of a risk.

The classification seems to have been driven mostly by studies on cellphone users, especially the Interphone study released last year. While this study did find an increased risk of certain brain tumours amongst the highest users of cellphones, the researchers cautioned that biases and errors in the data meant that no conclusions could be drawn on whether there is a real cause and effect relationship. IARC confirmed during a press conference that they did not consider that they had established a risk.

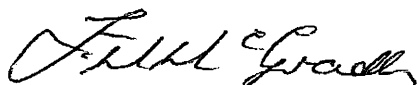
To put this into context, other agents classified as "possible" carcinogens include coffee, petrol exhaust, pickled vegetables and low frequency magnetic fields. Other categories in the IARC classification are Class 1 - carcinogenic (eg x-rays, solar radiation, alcoholic beverages), Class 2A – probably carcinogenic (eg diesel exhaust, PCBs), Class 3 – not classifiable (eg tea, paracetamol), and Class 4 - probably not carcinogenic (only one agent in this category).

While some people may nevertheless find this classification worrying, it is important to remember that exposures from WiFi equipment are thousands of times lower than from cellphones, so there is little or no relevance of this classification to the use of WiFi in schools.

Finally, several people have suggested that WiFi is banned from schools in Switzerland. I have followed this up with the Swiss Federal Office of Public Health, which informed me that this is not the case, and that increasing numbers of schools are installing WiFi.

Further information about radiofrequency fields, cellphones, cellsites and other sources of electromagnetic fields can be found on the Ministry of Health's National Radiation Laboratory website at [www.nrl.moh.govt.nz](http://www.nrl.moh.govt.nz).

Yours sincerely



Dr Fran McGrath  
**Acting Director of Public Health**