Good morning,

In this presentation I would like to further explain my view written in my submission. Examples given here will be provided with hard copies at the end.

I personally think a 15 meter mast needs to be built on a piece of land with 7.5 meter of radius (15 meter of diameter), having no residential dwellings within this area to be safe. The exchange site is the joining neighbour of our property; our family will suffer extreme danger if any collapses or accidents happen, especially New Zealand has rapid gusts of wind and rain.

Properties around masts have been shown to decrease values by approximately 15% according earlier studies in New Zealand. (Please see attachment entitled Property Value.) We may suffer even more loss once a 15m mast is put up beside our properties, as there are no other infrastructures high enough around to average out the oddness: 15m is like 2 to 3 street light poles stacking up. If masts are built at site H59 I would like this loss of value to be reimbursed.

International case studies also found correlations between various symptoms developed by residents living close to masts and their prolonged exposure to electromagnetic fields and non-ionising radiations from such sources, even though the amount seems to be within safety limits. (Please see attachments: German Doctors unite on RF health effects and Mobile phone and Mast Radiation)

Within a radius of 300 metre from our property, there are 2 childcare centres and the radiation will have an even more damaging effect on children, who are already susceptible. The same problem would persist for the elderly citizens in the retirement village, also within 300 metre.
I do not think increasing the allowed noise level is a good idea. Some residents need to go to bed well before 10pm for 12 hours of roster work. The 10pm cut-off line of noise level will still disturb.

Besides, four masts have already been erected around Flagstaff Shopping Centre. Putting up another one within 1km of straight line distance is wasting resources. Masts can be shared by more than one telecommunication provider. (Please see attachment photo)

For these reasons, Please do not approve the conditions proposed by Chorus or Telecom.

Thank you.
Property Values

Cell Phone Tower Proximity Impacts on House Prices:
A New Zealand Case Study

This paper outlines the results of further research to show the effect that distance to a CPBS has on residential property prices in New Zealand (NZ). It follows on from two earlier parallel studies carried out in 2003 (see Bond and Wang, 2003). The first of the earlier studies examined residents’ perceptions toward living near CPBSs while the second study analyzed actual property sales evidence using multiple regression analysis in a hedonic pricing framework.

The results indicate that property prices decrease by around 15% after a CPBS is built. This effect generally reduces with distance from the CPBS and is almost negligible after about 300 meters.

(Download the below attachment NZ-GISPaperMay2006Final.doc for full study)

Locally Unwanted Land Use

http://en.wikipedia.org/wiki/Locally_unwanted_land_use

Locally unwanted land use is a planning term. Another term for it is nuisance. The acronym is “L.U.L.U.”

It functions as a generic term for land uses which are detrimental for neighbouring land. It is a social necessity to site "LULUs" in general, but no community wants to provide land for them. "LULUs" can include power plants, dumps, prisons, or psychiatric hospitals. Planning seeks to distribute and reduce the harm of "LULUs" by zoning. Thus, property values are protected, and sites can be found where the usage is rather neutral to land value.

NZ-GISPaperMay2006Final.doc
22/07/2005 - German Doctors unite on RF health effects

A number of German doctors are combining together to put forward their observations of adverse health effects from pulsed high-frequency EMFs (microwave) to the Prime Minister of Bavaria, Dr. Edmund Stoiber. The health effects include headaches, tiredness, inability to concentrate and dizziness, and show an alarming trend.

The following is a foreword written by the doctor who is representing the group, Dr. Cornelia Waldmann Selsam:

- Open letter to Edmund Stoiber, Prime Minister of Bavaria in Germany

"These reports show that the people for years have been ill due to pulsed high frequency electromagnetic fields, without the treating doctors recognising the cause. For that reason, people who are receiving the high frequency at home or at work have suffered and are suffering and they receive no therapy. The deciding [effective] therapy is to end the exposure.

"The continually repeated assertion in the media by the Radiological Protection Commission (Strahlenschutzkommission), that there is no proof for health risks under the present valid limits, has had the consequence that most doctors, (including myself until a year ago) have not drawn a relationship between the many unexplained illness patterns and high frequency radiation. The doctors do not know that at not one single mobile phone base station have investigations into the health-state of the people been carried out. Thus, the evaluation of the Strahlenschutzkommission in 2001 has no scientific basis.

"In Oberfranken, we have just evaluated the medical complaints of 356 people who have had long-term [radiation] exposure in their homes.

- The pulsed high frequency electro magnetic fields (from mobile phone base stations, from cable-less DECT telephones, amongst others), led to a new, previously unknown pattern of illnesses with a characteristic symptom complex.
- People suffer from one, several or many of the following symptoms: Sleep disturbances, tiredness, disturbance in concentration, forgetfulness, problem with finding words, depressive mood, ear noises, sudden loss of hearing, hearing loss, giddiness, nose
bleeds, visual disturbances, frequent infections, sinusitis, joint and limb pains, nerve and soft tissue pains, feeling of numbness, heart rhythm disturbances, increased blood pressure episodes, hormonal disturbances, night-time sweats, nausea.

- Even at $10\mu W/m^2$ (only 0.06 V/m average) many people are becoming ill.
- The symptoms occur in temporal and spatial relationship to exposure. It is no way only a subjective sensitivity disturbance. Disturbances of rhythm, hearing problems, sudden deafness, hearing loss, loss of vision, increased blood pressure, hormonal disturbances, concentration impairments, and others can be proved using scientific objective measures.
- Some of the health disturbance disappears immediately the exposure ceases (removal of DECT telephone, temporary moving away from home, permanently moving away, using shielding).

"Therefore, the expansion must be stopped immediately. Mobile phone base stations, in whose fields people are exposed to more than $10\mu W/m^2$ must be turned off.

"DECT telephones must be changed.

"Affected people, relatives and doctors must jointly commit themselves and work together with all their energy [to this end].

"Evaluation of symptoms of 356 people under long time home exposure to high frequency pulsed electromagnetic fields (DECT, telephones, mobile phone base stations) versus the level of the power flux density in microwatts per square metre."

Foreword - Documented Health Damage under the Influence of High Frequency Electromagnetic Fields
Dr. Cornelia Waldmann Selsam, Karl-May-Str.48, 96049 Bamberg

The results of the evaluations are as follows: (* See below the graph for the definitions of the "Symptom Groups")

It is worth explaining the indicated levels. The values convert approximately as follows:

- $10\mu W/m^2 = 0.06 \text{ V/m average}$
- $100\mu W/m^2 = 0.2 \text{ V/m average}$
- $1000\mu W/m^2 = 0.6 \text{ V/m average}$
* The symptom groups are defined as follows:

**Group 1:** No symptoms

**Group 2:** Sleep disturbance, tiredness, depressive mood

**Group 3:** Headaches, restlessness, dazed state, irritability, disturbance of concentration, forgetfulness, learning difficulties, difficulty finding words.

**Group 4:** Frequent infections, sinusitis, lymph node swellings, joint and limb pains, nerve and soft tissue pains, numbness or tingling, allergies

**Group 5:** Tinnitus, hearing loss, sudden hearing loss, giddiness, impaired balance, visual disturbances, eye inflammation, dry eyes

**Group 6:** Tachycardia, episodic hypertension, collapse

**Group 7:** Other symptoms (Hormonal disturbances, thyroid disease, night sweats, frequent urge to urinate, weight increase, nausea, loss of appetite, nose bleeds, skin complaints,
tumours, diabetes)

If true, this is a very clear trend. For those where it is under 10 $\mu$W/m$^2$ 70% of the sample (37 people) suffered no adverse health effects. For those where the power flux density is over 100 $\mu$W/m$^2$ only 5-6% of the sample (172 people) did not experience adverse health effects. 

Please look at this graph to see how these levels translate to exposure from a typical mast. Microwave signals are often above 0.6 V/m within 400 metres! There are no confounding factors listed in the data, but the strength of the trend is extremely pronounced.

This is further evidence to support the potential adverse health effects that may be synonymous with the pulsed Microwave technology that surround us in everyday life. Those in the medical profession are beginning to voice their concerns, and it is worth bearing in mind that they have first-hand experience of real people with real problems. It is important not to discard this evidence due to lack of experimental control, as it seems that a number of qualified professionals have independently found the same trends. At the very least this should call for more organised research into these findings.
Mobile phone and Mast Radiation – how dangerous are these (selected quotations only)

By Mrs Eileen O’Connor
Trustee for the EM Radiation Research Trust: www.radiationresearch.org
Founder SCRAM: www.scram.uk.com
1st October 2005

...The Naila Study, Germany (November 2004) - This study, conducted over 10 years was released by The Federal Agency for Radiation Protection, Germany. Medical doctors compiled case histories since 1994 - 2004, looking at heightened risk of taking ill with malignant tumours. They discovered a threefold increase after five years exposure to microwave radiation from a mobile phone mast transmitter for up to 400 metres distance, compared to those patients living further away.


A study carried out by Ronni Wolf MD and Danny Wolf MD, Kaplan Medical Centre, Israel (April 2004) discovered a fourfold increase in cancer within 350 metres after long-term exposure to microwave radiation from a mobile phone mast and a tenfold increase specifically among women, compared to patients living away from the mast http://www.powerwatch.org.uk/news/20050207_israel.pdf .

...other short-term mobile phone mast studies have also found significant health effects such as headaches, dizziness, depression, fatigue, sleep disorder, difficulty in concentration and cardiovascular problems. Click on the studies for more information:

The Microwave Syndrome - Further Aspect of a Spanish Study - Oberfeld Gerd, Press International Conference in Kos (Greece), 2004 ...

Bamberg, Germany 26-April, 2005
Dr C Waldmann-Selsam, Dr U. Seger,

German doctors evaluated the medical complaints of 356 people who have had long-term [radiation exposure in their homes from pulsed high frequency magnetic fields (from mobile phone base stations, from cord-less DECT telephones, amongst others).

People suffer from one, several or many of the following symptoms: Sleep disturbances, tiredness, disturbance in concentration, forgetfulness, problem with finding words, depressive mood, ear noises, sudden loss of hearing, hearing loss, giddiness, nose bleeds, visual disturbances, frequent infections, sinusitis, joint and limb pains, nerve and soft tissue pains, feeling of numbness, heart rhythm disturbances, increased blood pressure episodes, hormonal disturbances,
night-time sweats, nausea: Open letter to German Prime Minister following from the Bamberger study: www.tetrawatch.net/links/links.php?id=stoberlet...

Campaign groups have also been working with retired physicist Dr John Walker. Six studies now show an increase in serious illness appearing in radiation from masts after long-term exposure...


Medical Doctors are also campaigning for precaution:

Finland: Helsinki Appeal 2005

The Helsinki Appeal 2005 from EMF Team Finland calls on the European Parliament to act promptly for the adoption of the new safety standard in the European Union. Physicians and researchers, feel great concern about the Precautionary Principle not being sufficiently applied to electromagnetic fields...

Freiburger Appeal

In October 2002 a team of German medical doctors started the Freiburger Appeal. After seeing a dramatic rise in severe and chronic diseases, they have noted a clear temporal and spatial correlation between disease and exposure to microwave radiation. The appeal has since been signed by thousands of doctors.

http://www.taleva.cc/environment/freiburger_appeal.html ...

The REFLEX report also highlights RF-induced DNA breaks. The REFLEX project was set up to investigate the effects of low-levels of RF radiation on cellular systems... Yet again it was shown RF radiation could increase the number of DNA breaks in exposed cells...


For the sake of us all especially our children, non-ionising radiation is a high priority for public health. Mobile phone networks should use the lowest possible exposure values based on current empirical evidence...

Further References:

http://researcharchive.lincoln.ac.nz/bitstream/10182/4011/1/90_s10_EMR_MND_Environmental_Effects.pdf

http://www.publications.parliament.uk/pa/cm201314/cmselect/cmenergy/161/161ww93.htm