

TORBAY COUNCIL

Report No: **Env/247/01**

Title: LOCATION OF TELECOMMUNICATION MASTS

To: ENVIRONMENT SERVICES COMMITTEE on 12th December 2001

1. Purpose

- 1.1 This report sets out to give Members some background information to assist them to consider the future policy for the location of telecommunication masts on land and buildings where the Council is landowner.

2. Recommendation

- 2.1 That Members adopt a policy allowing existing masts sites to remain in operation but that any applications to erect masts on land or buildings owned by the Council should comply with then current guidelines regarding emissions and at renewal or review a statement to that effect be obtained from the operator.
- 2.2 That Members are invited to consider whether it would be appropriate to release sites on Council owned land or buildings which pass the sequential test, meet the precautionary principle in the vicinity of school sites, particularly supporting locations on buildings NOT constantly occupied such as car parks.
- 2.3 The Council in so far as its consent is required will not allow new telecommunications equipment on school sites and recommends Governing Bodies to adopt a similar policy on the basis of the precautionary approach.

3. Background

- 3.1 The widespread use of mobile phones is a recent phenomenon. Their use has escalated over the past decade and to many they are now an essential part of business, commerce and society. As at April 2000 there are estimated to be around about 25 million mobile phones in circulation, equivalent to one phone for every two people.
- 3.2 The fact that so many people own mobile phones attests to their perceived importance to the general public. The advent of third generation systems will extend the use of most forms of communication technology, including fax, e-mail and internet access. The use of mobile phones and related technologies will continue to increase for the foreseeable future.
- 3.3 Extensive use of mobile phones has been accompanied by a public debate about possible adverse affects on human health. The concerns relate to the emission of radio frequency (RF) radiation from the phones (handsets) and from the base stations that receive and transmit the signals. The level of exposure arising from phones held near to the head or other parts of the body are substantially greater than whole body exposures arising from the base stations.

- 3.4 The Stewart report concluded that the balance of evidence suggests that exposure to RF radiation below the National Radiological Protection Board and the International Commission on Non-Ionising Radiation Protection guidelines does not cause adverse effects to the general population.
- 3.5 The Stewart report concluded therefore that it is not possible at present to say that exposure to RF radiation even at levels below national guidelines, is totally without potential adverse health effects, and that the gaps in knowledge are sufficient to justify a precautionary approach.

PAUL LUCAS
Director of Environment Services

Contact Officer: Ian Ablart
Extension: 7922

IMPLICATIONS

The recommendations contained in this Report have implications relating to the following issues:-

	Please Tick		Please Tick		Please Tick
Legal	✓	Personnel		Financial	✓
Environmental	✓	Sustainability		Corporate Policies/Priorities	✓
Crime and Disorder	✓	Human Rights		Equal Opportunities	

Legal

Following the Stewart Report Central government proposes to introduce new regulations and revised planning policy guidance with effect from 22nd August 2001 (in Members' Room).

The present position, where an operator wishes to install a mast on Council owned land and property which is not used for highway purposes is that the Council as landowners has the ability to refuse permission for its installation, subject to the provisions of the telecommunications code referred to below.

On highways land the operators have the right to locate masts and is it not possible to ultimately refuse their installation, this is because licences granted by the Secretary of State for Trade and Industry to mobile phone companies confer upon them the status of code system operators and as such gives them the same rights to install plant and equipment on the highway as any other statutory undertakers.

Nevertheless, under the telecommunications code, operators have the power to ask the Courts to order property owners to let them install equipment. When such rights are granted over land or property to an operator, they have the right to remain in occupation notwithstanding the expiry of the contractual arrangements unless the landowner obtains a Court Order which may only be obtained on the very limited grounds of requiring the land to be developed.

In very limited circumstances Councils can take action against the installation of mobile phone masts on highways land for example in conservation areas or on amenity grounds.

If a mast is to be installed on land or property owned by other parties, the Council may be able to resist the application through the very limited powers which currently remain to them on planning grounds, notwithstanding the mobile phone companies have been given permitted development rights for these masts.

Leases of sites to operators from the Council now contain provision that the operators shall comply with all Government/National Regulations and Guidelines and to ensure that the International Commission on Non-Ionising Radiation Protection (ICNIRP) and the National Radiological Protection Board (NRPB) guidelines are met. When the equipment becomes operational the operators are required to arrange for readings of the radiation emissions and other emissions to be taken by an independent company/firm, to ensure that they fall below the recommended maximum levels.

Environmental

The DTLR proposes to introduce new regulations and revised planning policy guidance with effect from 22nd August 2001 which are outlined below:-

- (i) strengthening the public consultation requirements on masts proposals of 15m and below.
- (ii) The time for authorities to deal with prior approval applications that have increased to 56 days .
- (iii) School Governors must be consulted on all proposals for new masts on or near a school or college.
- (iv) Fees – to be increased to enable authorities to carry out all public consultation.
- (v) Authorities ability to reject applications on amenity ground is to be maintained.

In respect of health and safety concerns, these can be regarded as vital material planning considerations in the determination of individual planning applications for the siting of masts. The Department of Health launched a leaflet in December 2000 on mobile phone base stations and health which draws on the conclusions of the Stewart report which recommends a precautionary approach to the site of a base station until more research findings become available. In referring specifically to such installations on or near schools, the Department acknowledges the public concern that exists and the concentration of radio waves that can occur, often at some distance from base stations.

Exposure to radio wave emissions from base stations has, however, been calculated to be thousands of times lower than the maximum levels stipulated by International Safety Guidelines and some independent measurements have already been made and showed compliance.

The Radiocommunications Agency is undertaking an audit of base station emissions currently focussed on base stations located on school premises.

In addition to the commercial telecommunication systems in operation the emergency services have their own system of radiocommunications in particular the police forces are introducing a new system TETRA (Terrestrial Trunk Radio).

There are health concerns regarding the operation of this system which have not been allayed or confirmed by scientific research. (Appendix 2 article from Powerwatch News supplied by Cllr. Jowett).

Crime and Disorder

There is a widely felt perception among parents of school children, ladies travelling or walking alone that mobile phones contribute to their personal safety.

It should also be noted that communications equipment used by the Police, and other emergency services together with Civil Aviation equipment can also contribute to the RF.

Any restriction on possible sites for the location of TETRA equipment could have a detrimental affect on police communication impacting on their effectiveness to combat crime.

Financial

The Council has let a number of mast sites on their land and buildings the details of these sites, lease terms and incomes are set out in exempt Appendix 1.

Any decision to remove, restrict or refuse new applications by operators would have financial implications to the Council.

Corporate Policies/Priorities

Appendices

Appendix 1	Existing Telecoms Equipment on Torbay land (Exempt by virtue of items 3, 7 & 9 of Part 1 of Schedule 12A of the Local Government Act 1972)
Appendix 2	Powerwatch News article

Documents Available in Members' Room

Planning Policy Guidance Note 8 (PPG8)

Background Papers:

The following documents/files were used to compile this report:-

The Stewart report

The Kent County Council report January 2001

Devon County Council's report to the Stewardship of Resources Scrutiny Committee 26th March 2001.

Planning Policy Guidance Note 8 (PPG8)

Powerwatch News TETRA2

On 31st July 2001 the NRPB published Volume 12 No 2 Documents of the NRPB,
"Possible Health Effects from Terrestrial Trunked Radio"

Although we welcome their "Recommendations for Further Action" (para135, page 31), which we regard as positive, many of these tests should have been carried out before the Government spent £2.5bn on forcing this new system on UK Police forces. **No human testing** has been done with a system that has been planned in detail since the early 1990s. Why did people, like the NRPB's Dr A McKinlay, who represent the UK on the international standards committees not raise these issues years ago, so that the work could have been done before the Police were used as guinea pigs? This is an important question that needs a good answer.

This report is seriously flawed. It has obviously relied on the industry (TETRA MoU, Dolphin & BT Airwave) for much of its information about TETRA and they seem to have fed them misleading information.

For example, TETRA Masts **do** pulse. This is not "pulse modulation for transmitting the data", but sharp full-power synchronising pulses between 3 of the 4 time slots on each carrier with the 4th pulse being at zero power. This results in 3 pulses at 70.4 Hz and one "zero" pulse at 17.6 Hz, leading to significant amplitude modulation at 70.4 Hz and a lower, but audible when demodulated, signal at 17.6 Hz. This is quite detectable by people and animals due to the non-linear nature of cell membrane signaling that occurs in their bodies as part of life processes.

The repeated NRPB statements such as "*It is notable that the signals from TETRA base stations are not pulsed, whereas those from mobile terminals and repeaters are.*" are just plain wrong. Apparently they relied on misleading written statements from the Operators and, despite their having adequate staff and equipment, did not go out and actually analyse the signals coming from an active TETRA base-station. Was this collusion or incompetence?

BT Airwave base-stations apparently emit stronger signals than Dolphin ones because BT Airwave keep all their carriers (often 3 or 4) turned on all of the time, whereas Dolphin use one and only activate extra carriers (each can carry 4 calls) when needed (at 5, 9 and 13 active calls). This will mean that BT Airwave signals will usually be between 2 and 4 times more powerful than Dolphin signals.

Why is there not a discussion of non-linear transmembrane charge tunneling? Over the last 36 years there have been a considerable number of peer-reviewed published studies and theoretical papers that examine the extreme non-linear processes within the cell membrane. There are no papers listed by Freidmann Kaiser, Alwyn Scott, Clemens Eichwald, Keith McLauchlin, Ulrich Steiner or William Bialek. They have all made significant contributions to our understanding of nonlinear cell membrane electrodynamics.

Their statement "*Suggestions that pulsed RF fields could trigger epileptic fits or otherwise affect epilepsy sufferers appear to be unjustified*" is not backed up with any test results using people who suffer from epilepsy. We are

<http://www.powerwatch.org.uk/news/tetra2.htm>

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complex living beings and simplistic experiments on cells in a petrie dish do not accurately represent the reactions in a fully alive human being. There are anecdotal reports of people suffering epileptic fits near to masts. Some real research needs doing here using human volunteers who suffer from epilepsy.

They have (excellently, thanks NRPB) placed the full document on their website in Adobe (*.pdf) form.
NRPB TETRA.

Alasdair Philips

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