



**Telecommunications Masts**

**A review by the Overview Scrutiny Committee**

**February 2005**

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## 1. Executive Summary

1.1 Members of the Overview Scrutiny Committee agreed to undertake a review of telecommunications masts.

1.2 The terms of reference of the review were:

**To understand the planning freedoms Mobile Telecommunications providers have;**

**to review current sites of Telecommunication Masts in the borough;**

**to review Gravesham Borough Council's policy on telecommunication equipment located on Gravesham Borough Council owned property.**

1.3 The context in which the review was undertaken was to investigate the constraints the planning department has in respect of permitting or refusing telecommunications masts and to consider the need for the siting of more masts with the emergence of 3G mobile phone systems.

1.4 Three evidence gathering sessions were held. The first session held on 5 August 2004, was with Mr J Lee, a senior planner who deals with all telecommunication mast planning applications within the borough. The second session was held on 28 September 2004 with Ms N Davies, Council Liaison Manager from the Mobile Operators Association (MOA) together with representatives from four of the mobile operators. The third session was held on 4 November 2004 with Dr M Clark, Public Relations, National Radiological Protection Board (NRPB).

Evidence was also collected from a questionnaire published on Gravesham Borough Council's website and in the Council's magazine 'Your Borough' that each household in the borough receives.

1.5 Conclusions and Recommendations: -

1.5.1 Members of the public have real concerns over the perceived health risks associated with mobile 'phone masts and many feel that these concerns are being ignored.

1.5.2 The public currently feel disengaged from the planning process for the mobile operators despite their agreement to adhere to the 10 commitments to best siting practice.

1.5.3 Evidence so far suggests that there is no general risk to the health of people living near base stations although it is advisable that a precautionary approach be taken until further research can be carried out.

1.5.4 The emissions produced by the handsets and their proximity to the caller's head are far greater than any emissions that would be received from a mast and this is exacerbated when a mobile 'phone user is situated some distance away from a base station, as the handset itself will have to emit more radiation because it has to work harder to pick up a signal.

- 1.5.5 In most cases local planning authorities have very little power to enable them to refuse the siting of a mast. It is recommended that Cabinet makes representations to government that applications for the siting of telecommunications masts should be dealt with on their individual merits, in the same way as all other planning applications, without any special concessions.
- 1.5.6 The banning of masts from KCC land has increased the number of controversial sites chosen by telecommunications companies. It would, therefore, appear to be helpful for KCC to remove its blanket ban on the siting of masts on its land and, instead, to evaluate each application for a mast on a case by case basis. KCC is invited to explore with the Overview Scrutiny Committee the practical implications of lifting the ban.

## **2. Background**

### **2.1 Telecommunication Masts**

Mobile phones have become an everyday part of modern living, with 75 per cent of UK adults either owning or having use of a mobile phone and this number is growing year on year.

Mobile technology needs to be supported by a network of telecommunications masts in order for it to function and as the technology becomes more advanced more masts are needed to support the services mobile phones can offer.

### **2.2 2G to 3G mobile communications**

The mobile phone operators have divided the country into a series of geographical areas known as cells and within each cell is a radio base station (telecommunication mast). The cells, more often than not will overlap. This is so holes in the network do not occur otherwise calls will be interrupted or dropped as a user becomes out of range from a base station.

Each base station can only support a limited number of calls therefore as the number of callers using a particular base station increases the size of the cell will shrink and shrinkage of a cell will occur more quickly as users move from 2G systems to the services 3G technology can offer.

3G services include photo messaging, video calling and the internet for example. When using these types of services the quantity of data being sent across the network is much greater and travels at a higher radio frequency. Higher radio frequencies travel shorter distances than the lower frequencies used by 2G technology. 3G use will shrink the size of the cell more quickly decreasing the capacity of each mast. This means that more masts will be needed to support a 3G technology network.

### **2.3 Siting of masts**

The five mobile operators purchased licenses to operate from the government. The licenses have conditions attached to them. One condition on most licenses states that operators must have 3G coverage to 80 per cent of the population by the end of 2007. This has resulted in an increase in the number of masts being erected and applications

received to erect more masts, particularly within urban areas where the population density is greater, enabling operators to achieve the targets set by government. Operators are also applying to increase the number of masts in rural areas.

## 2.4 Health Risks

There has been growing public concern regarding the risk to health that masts may pose. Mobile phone operators do have to comply with international guidelines for limiting public exposure to radio frequency waves. The guidelines have been set by the **International Commission for Non-Ionizing Radiation Protection (ICNIRP)**. The guidelines were recommended as a precautionary measure by the Stewart Report written in 2000 and were accepted by the UK government.

Independent audits have shown that emissions from masts are hundreds or thousands of times below the ICNIRP guidelines.

The Stewart Report, which investigated the risks of mobile technology and the approach that should be taken, states that “The balance of evidence indicates that there is no general risk to the health of people living near base stations, on the basis that exposures are expected to be small fractions of guidelines.”

## 2.5 Local planning guidance and policy

Planning Guidance is in the form of the Local Plan First Review 1994. Policy on Telecommunications

### Policy U2

The Borough Council recognises the importance of new telecommunications development and will consider any such proposals for development having regard to the advice contained in PPG8. In cases where there is a conflict with policies to protect the environment, planning permission will only be given where there is no overriding amenity objection and:-

- i the applicant has demonstrated that no reasonable alternative site exists;
- ii the applicant has proved that there is no reasonable possibility of sharing existing facilities with another operator.

Gravesham Local Plan Second Review Deposit Version 2000 also relevant but not adopted and likely to be replaced, therefore of limited weight:-

### Policy SC5 Telecommunications

Encouragement will be given to the provision of an efficient telecommunications infrastructure and development which makes use of it across the borough, in particular to ensure that all properties are connected to cable and telephone networks. All telecommunications proposals will be subject to the following criteria:-

- i. adequate steps have been taken to minimise the impact of the development in terms of materials, siting, landscaping and account has been taken of the environmental policies of this Local Plan Review;
- ii. in the case of new access roads, cables and services in general, shall be located so as to minimise future disruption if junction improvement works or other changes are required;
- iii. **telecommunications operators seeking to install radio masts and aerials shall provide comprehensive long term plans for their installations, including the possibility of mast-sharing, to demonstrate that all reasonable alternatives have been explored and to enable their impact to be properly assessed.**

Planning Policy Guidance, a 31 page document, issued by government known as PPG08, relates to the planning policy set out by government which local authorities must follow when considering planning applications for telecommunication installations.

The following points make up part of PPG08 and this ultimately restricts the power a local authority has in refusing to permit the siting of a mast.

“Authorities should not seek to prevent competition between different operators and should not question the need for the telecommunications system which the proposed development is to support.”

“However, it is the Governments firm view that the planning system is not the place for determining health safeguards. It remains central Governments responsibility to decide what measures are necessary to protect public health. In the Governments view, if a proposed mobile phone base station meets the ICNIRP guidelines for public exposure it should not be necessary for a local planning authority, in processing an application for planning permission or prior approval, to consider further the health aspects and concerns about them.”

PPG08 can be read in full at the following web address:

[www.odpm.gov.uk/stellent/groups/odpm\\_planning/documents/page/odpm\\_plan\\_606918.hcsp](http://www.odpm.gov.uk/stellent/groups/odpm_planning/documents/page/odpm_plan_606918.hcsp)

## 2.6 Human rights

This is an example of the human rights consideration contained in the planning officer’s report on a mast application.

In terms of compliance with the Human Rights Act 1998, it is possible to make the following initial comments. Under the Act all persons are entitled to a fair and impartial hearing by an independent tribunal established in law. The Regulatory Board comprises such a tribunal, with the applicant having a right of appeal and third parties recourse to legal challenge. In making a judgement on the application, Members should ensure that all material considerations are taken into account. Whilst Ministerial guidance stands that, if a proposal complies with the ICNIRP guidelines, there is no need to consider the health aspect further, it is questionable if this provides third parties with a fair and impartial hearing if their concerns remain. Members will need to look at this aspect broadly

and reach their own conclusions on the basis of the case before them. It could be argued that this approach effectively proscribes debate about the safety of low emissions, thus fettering the right of individuals to debate the issue in contravention of Article 6 (1) of the European Convention on Human Rights by preventing a fair hearing.

The Human Rights Act also exists to preserve the rights of the 'individual' in relation to respect for his private and family life, his home and correspondence. A Public Authority may (under Paragraph 2 of Article 8 of the Act) interfere with the right where that interference is lawful and necessary in a democratic society in the interests of protecting the rights and freedoms of others. Any interference in those rights must be proportionate, in that the interference must be no greater than is necessary and should be deemed to be reasonable and fair. No evidence has been found that the applicant has not investigated alternative sites for the proposal. Moreover, Article 8 (2) defines necessity in terms of a number of matters, including public safety, the economic wellbeing of the country and the prevention of disorder or crime. In each of these respects it can be considered that the grant of permission is necessary in a democratic society and would not place a disproportionate burden on the public such as would result in a violation under Article 8 (1). If Members determine to refuse to approve the details of siting and appearance of the telecommunications equipment, they will need to make a judgement as to whether this response is proportionate. This once again relates to balancing the rights of the applicant against those of affected local residents etc.

### **3. Review**

#### **3.1 Planning**

Having taken evidence from the Senior Planning Officer that deals with all mast applications at Gravesham Borough Council, it was apparent that the planning laws regulating the siting of masts are extremely complex. However in brief the following procedure applies:

Masts below 15 metres in height from the ground do not generally need planning permission but they do need to go through the prior approval procedure which would examine what the masts would look like, where it would be placed and that thorough investigations had taken place regarding other possible sitings for the mast. Mobile operators are also obliged to look at the possibilities of mast sharing. For each application, regardless of whether the mast needs planning permission or requires the prior approval, the planning department has 56 days in which to approve or refuse the application. If the application goes past the 56 day deadline with no resolution from the planning department the masts will automatically receive permission.

The Stewart Report, which investigated the risks of mobile technology and the approach that should be taken, suggested that mobile phone masts should be subject to normal planning laws, however the government chose to reject the advice. As a result of this, local planning authorities often have very little authority to be able to refuse a mast application and communities also feel they have a lack of control regarding the siting of masts.

Mobile operators, in line with the Stewart Report's recommendation for a precautionary approach to mobile phone technology and health, are obliged

as part of the 10 commitments of best siting practice, to carry out pre-rollout and pre-application consultation with local planning authorities. The rollout plans are given to local authorities on an annual basis. A large proportion of the masts indicated on the rollout plans will not go further than this stage.

The ten commitments are:

1. develop, with other stakeholders, clear standards and procedures to deliver significantly improved consultation with local communities;
2. participate in obligatory pre-rollout and pre-application consultation with local planning authorities;
3. publish clear, transparent and accountable criteria and cross-industry agreement on site sharing, against which progress will be published regularly;
4. establish professional development workshops on technological developments within telecommunications for local authority officers and elected members;
5. deliver, with the Government, a database of information available to the public on radio base stations;
6. assess all radio base stations for international (ICNIRP) compliance for public exposure, and produce a programme for ICNIRP compliance for all radio base stations as recommended by the Independent Expert Group on Mobile Phones;
7. provide, as part of planning applications for radio base stations, a certification of compliance with ICNIRP public exposure guidelines;
8. provide specific staff resources to respond to complaints and enquiries about radio base stations, within ten working days;
9. begin financially supporting the Government's independent scientific research programme on mobile communications health issues;
10. develop standard supporting documentation for all planning submissions whether full planning or prior approval.

### 3.2 Perceived risks to health

During the review process a questionnaire was placed in 'Your Borough' (the Gravesham Borough Council magazine) which is distributed throughout the borough (see appendix 1), to investigate if a mast were to be sited near residents homes if they would object and why.

A total of 137 responses were received of which 10 respondents said they would not object to a mast being sited near their homes. However a large majority (81 percent) stated they would object if a mast were to be sited near their homes. Their main concern being the perceived risk the masts may pose to people's health. This perceived risk to health prompted many to ask why the masts needed to be placed so close to residential areas.

During the interview with witnesses from the MOA and representatives from the mobile operators it was explained that the masts are placed close to



residential areas because that is where the customers are. Smaller masts can only cover a certain area. The range of a mast can be affected by physical and geographical factors such as buildings and hills. Due to the range of a mast, masts need to be placed near to the people using phones and that is in built up / residential areas. By always siting masts away from residential areas gaps in coverage would be generated.

The vast majority of respondents who would object to a mast being sited near their home also owned a mobile telephone although many commented that they only owned a mobile telephone for use in an emergency. However it is important to point out that even this limited use of a mobile telephone requires a mast for it to function.

One cannot come without the other, although it would seem that people view the mobile telephone as the useful tool and view the mast as the potential threat to people's health.

Dr Michael Clark of the National Radiological Protection Board (NRPB) discussed the research that has taken place regarding emissions from masts. The NRPB is an independent body that carries out research into many different types of radiation. The radio waves emitted from masts are the same as those used to broadcast television and radio therefore the population have been exposed to radio waves for more than 100 years. The only difference between radio and television broadcast and mobile telecommunications is that mobile telecommunication is two way communication rather than one way communication. **Independent audits have shown that the emissions from masts are hundreds or thousands of times below the ICNIRP guidelines.** Research so far has shown that there is no link between adverse health problems and masts.

The Stewart Report, states that "The balance of evidence indicates that there is no general risk to the health of people living near base stations, on the basis that exposures are expected to be small fractions of guidelines."

Dr Clark pointed out that people's fear of having a mast located near their home and people's perceived worry of the health risks it may bring can cause anxiety and this anxiety itself can cause health problems. These anxieties stem from a genuine concern over possible health problems and these should not be ignored. It is considered that handsets may have a much greater detrimental effect on health than mobile phone masts. The emissions produced by the handsets and their proximity to the callers head is far greater than any emissions that would be received from a mast and this is exacerbated when a mobile phone user is situated some distance away to a base station as the handset itself will have to emit more radiation as it has to work harder to pick up a signal.

### 3.3 Visual impact

Many respondents to the questionnaire also stated as part of their objection to a mast being sited near their home that the masts would have a detrimental visual impact.

During the evidence gathering session with the MOA it was shown that this issue is resolvable as mast designers will consider the type of base station that will best fit into the landscape and which will best fit into the community that it will serve. As technology improves masts can be more easily fitted into

the landscape. Masts are designed in various ways and can fit into street furniture such as a signpost or be made as an imitation tree for example.

#### 3.4 Public consultation by the mobile operators

When evaluating a site the mobile operators will use the traffic light model and this will suggest the amount of consultation needed for a particular site, red needing the most consultation and green needing the least. The traffic light rating is then agreed with the local planning authority. The MOA did state that there have been cases during consultation where the site location has been changed or a change was made to the masts' design.

The general feeling amongst the public was that their concerns and objections are overlooked and this was particularly apparent from responses received from residents in Riverview Park that had objected to a mast being erected in Thong Lane.

#### 3.5 Policy of siting masts on land owned by Kent County Council (KCC) and Gravesham Borough Council

KCC has a blanket ban on telecommunication masts being sited on its land. Although masts can be placed on KCC highway land as they are considered to be a utility.

The ban by KCC limits the available options for the siting of masts and so the amount of appropriate sites decreases. As a result the sites chosen may be more controversial to local communities. Land and property owned by councils are often very appropriate sites for locating masts as they often have existing structures on which to erect a mast.

Currently Gravesham Borough Council does not have a policy banning masts from its land however historically the council has chosen not to allow masts to be erected on its property, having chosen to take the precautionary approach to planning in this matter (see appendix 2 – Minute 49 of the Policy and Finance Committee, (23.11.99)).

#### 3.6 Conclusions and Recommendations

- 1.5.1 Members of the public have real concerns over the perceived health risks associated with mobile 'phone masts and many feel that these concerns are being ignored.
- 1.5.2 The public currently feel disengaged from the planning process for the mobile operators despite their agreement to adhere to the 10 commitments to best siting practice.
- 1.5.3 Evidence so far suggests that there is no general risk to the health of people living near base stations although it is advisable that a precautionary approach be taken until further research can be carried out.
- 1.5.4 The emissions produced by the handsets and their proximity to the caller's head are far greater than any emissions that would be received from a mast and this is exacerbated when a mobile 'phone user is situated some distance away from a base station, as the handset itself

will have to emit more radiation because it has to work harder to pick up a signal.

- 1.5.5 In most cases local planning authorities have very little power to enable them to refuse the siting of a mast. It is recommended that Cabinet makes representations to government that applications for the siting of telecommunications masts should be dealt with on their individual merits, in the same way as all other planning applications, without any special concessions.
- 1.5.6 The banning of masts from KCC land has increased the number of controversial sites chosen by telecommunications companies. It would, therefore, appear to be helpful for KCC to remove its blanket ban on the siting of masts on its land and, instead, to evaluate each application for a mast on a case by case basis. KCC is invited to explore with the Overview Scrutiny Committee the practical implications of lifting the ban.

## Mobile phone mast sites around Gravesham



This map was compiled by the Kent Messenger. This map is a good guide to the location of masts within Gravesham however there are some minor inaccuracies.

### Mobile phone mast sites around Gravesham


## Appendix 2

The following article and questionnaire was placed in the September 2004 edition of "Your Borough" and on the website over the same period.

One of the roles of the Overview Scrutiny Committee is to review current issues that affect the borough. One hot topic locally and nationally is the siting of telecommunication masts for mobile telephones so the Overview Scrutiny Committee has decided to review this issue.

The main aim of the review is to gain an understanding of the planning controls associated with the siting of telecommunications masts. It is a little known fact that most masts do not need planning permission from the Council.

A large majority of people want to use mobile telephones however most people don't seem to want the masts needed for them to operate to be placed near their homes, workplaces or schools.

If you have an opinion on this and would like to participate in this review please do so by filling in the questionnaire below. The findings of this review will be published in a future issue of Your Borough.

### Telecommunications mast review questionnaire

- 1) Do you have a mobile telephone?  
Yes  No
  
- 2) If a telecommunications mast were to be sited near your home would you object?  
Yes  No
  
- 3) If you answered **yes** to number 2, on what grounds would you object to a mast being sited near your home?

#### Results of survey:

**137** responses were received in total of those:

**10** respondents said they would not object;

**111** respondents said they would object due to fears over potential health risks.

**16** respondents objected specifically due to the environmental / visual impact of masts.

N.B. Many of those respondents who stated they would object due to potential health risks all gave the environmental / visual impact of a mast as a further reason to object

## **Appendix 3**

### **Minute 49 of the Policy and Finance Committee (23.11.99)**

#### **49. Telecommunication Masts**

Further to Minute 118 of the Planning & Transportation Committee held on 10 November 1999, which recommended that the Policy & Finance Committee consider whether Council-owned land should be used for the siting of telecommunication equipment, Members considered a detailed report and supplementary report on telecommunication masts.

Members were aware that a number of telecommunication masts and associated equipment had been installed on Council property. The Council's officers had researched the implications of telecommunication development as an on-going process. Advice given by the Department of Health and National Radiological Protection Board (NRPB) on health aspects relating to telecommunication installations remained that there were no identifiable health risks associated with the use of mobile telephones or their associated base stations. Research, however, is continuing, particularly on athermal effects, and the results of some of this will be published in the year 2000.

Members were informed that the application in respect of the telecommunication mast at Cascades Leisure Centre had resulted in numerous objections and a petition relating both to the visual impact of such development and the principle of siting such equipment in this location on health grounds.

#### **Resolved that**

- (1) the recommendation to this committee contained in Minute 118 of the Planning & Transportation Committee of 10 November 1999 be approved;
- (2) representations be made to the Department of the Environment, Transport and the Regions and the Local Government Association requesting them to obtain and provide further clarification and guidance on the health implications of telecommunication masts and on the approaches that should be adopted by local authorities in response to public concerns about such health implications;
- (3) having regard to the Government's intention to conduct further research into the athermal effects of telecommunication apparatus, the Council considers that the precautionary principle should be adopted and is therefore not prepared to agree to the stationing of a telecommunication mast at Cascades Leisure Centre;
- (4) future cases where a telecommunications provider applies to the Council to erect a telecommunications mast on the Council's property should be considered on their merits in the particular circumstances of the case, taking into account such further advice as may be received from the Department of the Environment, Transport and the Regions and the Local Government Association.

Note: Councillor K Green spoke with leave of the Chair on this item.

## Appendix 4

### 2.8 Useful websites

Below is a list of useful websites relating to telecommunication masts.

Find out where masts are located [www.sitefinder.radio.gov.uk](http://www.sitefinder.radio.gov.uk)

Mobile Operators Association [www.mobilemastinfo.com](http://www.mobilemastinfo.com)

National Radiological Protection Board [www.nrpb.org](http://www.nrpb.org)

Public Technology [www.publictechnology.net](http://www.publictechnology.net)

Mast Action UK [www.mastaction.co.uk](http://www.mastaction.co.uk)

All Party Parliamentary Mobile Group [www.apmobile.org.uk](http://www.apmobile.org.uk)

Planning policy guideline PPG08  
[www.odpm.gov.uk/stellent/groups/odpm\\_planning/documents/page/odpm\\_plan\\_606918.hcsp](http://www.odpm.gov.uk/stellent/groups/odpm_planning/documents/page/odpm_plan_606918.hcsp)

## **Appendix 5**

### **Minutes from the evidence gathering sessions held.**

#### **Overview Scrutiny Committee**

<b>Review:</b>	<b>Telecommunication Masts</b>
<b>Venue:</b>	<b>Civic Centre, Gravesend - 5 August 2004 - 5pm</b>
<b>Present:</b>	<b>Councillor N J Singh Thandi (Chair)</b> <b>Councillors: W G Dyke</b> <b>K Jones</b> <b>M Singh</b> <b>R J R Target</b>
<b>In Attendance:</b>	<b>Miss L Dell, Democratic Services</b> <b>Mr D Finch, Corporate Policy Officer</b>
<b>Interviewee:</b>	<b>Mr J Lee , Senior Planner, Gravesham Borough Council</b>

#### **Summary of Evidence**

##### **Introduction**

Members were informed that the mobile phone operators have each bought a licence to operate from the government. The licence provided to each one of the five different operators would stipulate the amount of coverage each network would need to have by a certain date. Hutchison for example must have 3G coverage to at least 80 per cent of the population by no later than 31 December 2007. Other operators would have similar conditions on their licences and this is why there are more masts in urban areas than in rural areas as a higher percentage of the population would live within an urban area. The mobile phone operators are making progress towards placing more masts within rural areas.

##### **Planning Permission**

Members were advised that the planning regulations regarding telecommunication masts were extremely complex.

The sub-group was given part 24 of the Town & Country Planning (General Permitted Development) Order for England which states whether a telecommunication mast needs permission. Masts below 15 metres in height from the ground do not generally need planning permission but they do need to go through the prior approval procedure which would examine what the masts would look like, where it would be placed and that thorough investigations had taken place regarding other possible sitings for the mast. Mobile operators are also obliged to look at the possibilities of mast sharing. Each application regardless of whether the mast needs planning permission or requires the prior approval procedure, the planning department will have 56 days in which to approve or refuse the application. If the application goes past the 56 day deadline (in the case of a prior approval) with no resolution from the planning department the masts will automatically receive permission.



Each of these five operators have a role-out plan which shows where their masts are operational, where they plan to put masts or are looking to put masts in the future, all of which may or may not be built.

**Questions:**

**Can the Council refuse an application for a mast on the potential health risks?**

The planning department has to follow government guidelines when either permitting or refusing a mast - health grounds are taken into account and applications can be refused on the grounds that the mast represents a perceived health risk to residents that is sufficient to outweigh the factors in favour of permission.

**Can a mast be erected in a conservation area without planning permission?**

All masts in conservation areas need planning permission.

**How many applications do you receive for masts per month on average?**

Usually between one or two but that is likely to increase due to the 3G systems.

## Overview Scrutiny Committee

**Review:** Telecommunication Masts

**Venue:** Civic Centre, Gravesend - 28 September 2004 - 5pm

**Present:** Councillor Rosemary Leadley (Chair)

Councillors: M Burgoyne  
W G Dyke  
D Hurley  
K Jones  
C Meredith  
M Snelling

**In Attendance:** Miss L Dell, Democratic Services  
Mr C Gilbert, Development Control Manager  
Mr J Lee, Senior Planner  
Mr A Wilcox, Communications Manager  
Miss C Trowell, Democratic Services

**Interviewees:** Ms N Davies - Council Liaison Manager, Mobile Operators Association  
Ms Davies - Community Affairs Manager, Three  
Mr A Jewell - Planning Co-ordinator, Three  
Mr J Stevenson - Community Affairs Manager, 0 Two  
Mr N Tipping - Council Relations Officer, Orange  
Ms N Whitehead - Community Affairs Manager, Vodaphone

**Note:** The following members of the public were invited to observe the meeting.

Mrs D Hartung  
Mrs D Fairbrother  
Mrs J Gildea  
Mr F Hartung  
Mr M Gill  
Mr P Murray

## Summary of Evidence

### Introduction

Members were given a presentation by Ms M Davies of the Mobile Operators Association (MOA) regarding mobile networks and telecommunication masts. The presentation was given in conjunction with a PowerPoint presentation and the slides from this presentation are shown below:-

**If viewing this on the internet the PowerPoint slides can be viewed by clicking on the other PDF document on the web page below the executive summary.**

## **Questions:**

### **How is the MOA funded?**

The MOA is funded by the five mobile operators.

### **When mobile operators consider siting a new mast what drives these considerations?**

Each mobile operator has a team of designers designing their individual networks. The designers will look at where masts are needed so that there is the capacity to handle the quantity of use in a particular area and so that the networks can also absorb new customers.

The newest mobile operator in the market place is having to build a network from scratch with a certain amount of coverage requirements needed by a certain date, therefore many new sites are required by them.

There is also the drive to transform networks from 2G to 3G systems and as 3G data travels a shorter distance more base stations are needed in order to fill any gaps in the networks.

From an aesthetic point of view the designers will consider the type of base station that will best fit into the landscape and which will best fit into the community that it will serve.

### **Why are masts sited so close to residential areas?**

The masts are placed close to residential areas because that is where the customers are. Smaller masts can only cover a certain area. The range of a mast can be affected by physical and geographical factors such as buildings and hills. Due to the range of a mast, masts need to be placed near to the people using phones. By always siting masts away from residential areas gaps in coverage would be generated.

### **What are the rules governing the placing of masts on KCC land?**

The Thong Lane site is on highways land and due to telecommunication masts being considered a utility, the telephone operators are able to erect them on highway land, however KCC does not allow masts to be sited on other land or sites within its ownership.

### **Will there be a time when no more masts will be needed?**

There is no correlation between the amount of phones owned and their usage, however as prices fall usage will increase so the need for masts will continue to grow. 3G services are all about data transfer and currently the mobile operators are unsure of how much 3G use will take place in the future. However it may be possible that people will be able to use a fixed line for this type of data transfer rather than the current method of mobile telecommunications. Technology is changing all the time and there may come a point when the mobile operators will be able to share the same antennas instead of just mast sharing as they currently do in some cases.

### **When mobile operators do mast share is there an increase in emissions?**

Yes, but this is a very low increase and this would not be a cumulative effect. Even if all five mobile operators were sharing one mast, as the installations are very low

powered they would still fall below the regulation levels for emissions set out by the International Commission for Non-Ionizing Radiation Protection (ICNIRP).

**At a large majority of Regulatory Board meetings there is often a planning application for a telecommunications mast. However, the Board are unable to refuse the mast on health grounds so we are impotent to refuse the application.**

**Do you think we should be able to refuse masts on the potential health risks?**

There is a fairly heavy weight argument to say that there is unlikely to be a risk to health from masts. The operators have stuck to an emission guideline below those allowed by regulations. Even when a mast is working at maximum output it is still well below the maximum limit stated by ICNIRP and masts rarely operate at full capacity all the time. If there was concern about a particular mast then the National Radiological Protection Board will independently test the output of that mast.

In respect of health risks it was stated that the further away to a base station a mobile phone user is situated, the handset itself will have to emit more radiation as it has to work harder to pick up a signal. It is considered that handsets may have a much greater detrimental effect on health than mobile phone masts.

**Has a blanket ban of siting masts on KCC land incurred any problems?**

By limiting the options available for the siting of masts the amount of appropriate sites decreases. As a result the sites chosen may be more controversial to local communities. Land and property owned by councils are often very appropriate sites for locating masts as they have existing structures on which to erect a mast.

**How many times has public consultation changed the location of a proposed mast?**

When evaluating a site the mobile operators will use the traffic light model and this will suggest the amount of consultation needed for a particular site. The traffic light rating is then agreed with the local planning authority. There have been cases during consultation where the site location has been changed or how the mast will look visually.

**Is there a chance that more mobile operators will come into existence in order to create competition?**

There are currently five companies that have 3G licences to operate and this was done in order to encourage competition.

Since the launch of the ten commitments the network development itself has become less competitive as the five companies work together in order to look at site sharing. Mast sharing makes efficient business sense for the operators as there is already an installation there on which to place a mast and this will bring cost savings to the operators.

**Should residents be concerned about the intensity of beam?**

The operators feel that the word beam is very misleading as a radio mast gives global coverage of an area and this will be compliant and well below the ICNIRP standard. Operators carry out a pre-test and a post-test on a new mast to test the emissions. Often the post-test will show lower emissions levels than the pre-test.

**Are the radio frequency signals used by telecommunication masts the same as radio and television frequency signals?**

The radio frequency signals emitted from the telecommunication masts are exactly the same as those signals emitted from radio and television masts. The only difference is that mobile telecommunications are a two-way method of communication rather than the one-way transmission of radio and television signals.

## Overview Scrutiny Committee

**Review:** Telecommunication Masts

**Venue:** Civic Centre, Gravesend - 4 November 2004 - 6pm

**Present:** Councillor Rosemary Leadley (Chair)

Councillors: M Burgoyne  
D Hurley  
K Jones  
C Jupp  
M Singh

**In Attendance:** Miss L Dell, Democratic Services  
Mr D Finch, Corporate Policy Officer

**Interviewees:** Dr M Clark - National Radiological Protection Board (NRPB)

**Note:** The following members of the public were invited to observe the meeting.

Mrs D Hartung  
Mrs D Fairbrother  
Mrs J Gildea  
Mr F Hartung  
Mr M Gill  
Mr P Murray

## Summary of Evidence

### Introduction

Dr Clark has worked as a scientist with the NRPB for over twenty years and has a background of studying ionising radiation although mobile phone masts fall under the category of non-ionising radiation.

### NRPB and Telecommunication Masts

Members were informed that the NRPB receives 50 per cent of its funding from the Department of Health with the other 50 per cent being funded by industry such as, checking x-ray machinery at airports, for example. It was noted that the mobile phone industry could not influence the research they carry out.

Background information regarding the Stewart Report was then given to Members and it was stated that the government chose to reject the advice which stated that mobile phone masts should be subject to normal planning laws. As a result communities often feel they have a lack of control about the siting of these masts.

### Health Risks

Dr Clark pointed out that the main risk to health was from mobile hand sets themselves rather than from the mobile masts and this was due to the proximity of the hand set to the users head. The public has been exposed to radio waves for over 100 years through television and radio broadcast. Research so far has shown there is no link between adverse health problems and masts, however peoples fear

of having a mast located near their home and their perceived worry of the health risks it may bring can cause anxiety and this anxiety itself can cause health problems.

The view of the NRPB is that there is a problem with public information. The media will use potential health issues to sell their media to the public, however we are healthier now as a nation than we ever have been and the greatest risk to health can be attributed to smoking and alcohol.

The NRPB will be releasing further information relating to telecommunication masts at some point in either December 2004 or January 2005.

Members were given a power point presentation discussing mobile phones and health.

**Questions:**

**Do masts send our pulse signals?**

Yes all masts use pulse signals.

**Could pulse signals interfere with brain cycles?**

There is no real evidence to suggest that these signals do interfere with brain activity, however this is an active area of research.

**What sort of effects could these radio waves have on children between the ages of 0-12?**

Tests cannot be carried out on children, however animals have been exposed to high levels of radio waves and no effects have been shown.