AGENDA ITEM 8

EXECUTIVE 9TH FEBRUARY, 2010

REPORT OF THE CHAIRMAN OF THE PARTNERSHIP AND STRATEGIC SERVICES SCRUTINY PANEL

A REVIEW OF MOBILE TELECOMMUNICATIONS INFRASTRUCTURE IN SOUTH STAFFORDSHIRE

1.0 Summary of the Report

1.1 This report submits, to the Executive the Scrutiny Review entitled ‘A Review of Mobile Telecommunications Infrastructure’ which has been completed by the Partnership and Strategic Services Scrutiny Panel.

2.0 Recommendation

2.1 That the scrutiny review "A Review of Mobile Telecommunications Infrastructure in South Staffordshire" be approved and adopted and the Head of Governance and Scrutiny Services be requested to include the review in the database of the Centre for Public Scrutiny.

3.0 Background Information

3.1 The Partnership and Strategic Services Scrutiny Panel undertook a detailed review of Mobile Telecommunications Infrastructure in South Staffordshire in accordance with the approved Scrutiny work programme.

3.2 The panel approved the following terms of reference at the first meeting of the review:

- To investigate and understand the technology and the demand of mobile telecommunications in the UK and in South Staffordshire.
- To gain an understanding of network operators’ needs, the concerns of residents and the scope for South Staffordshire Council to be involved in discussions around possible solutions (e.g. via mast sharing, design and location)
- To examine how South Staffordshire Council can best balance its role as a Local Planning Authority and its aim to protect the Green Belt.
- To examine the health implications of mobile telecommunications, including its infrastructure.

3.3 At the meeting of the 30th October 2008, the panel agreed to not focus on the health implications of mobile telecommunications and to concentrate on those areas over which the Council had more control; for example local planning policies.

3.4 As part of the evidence gathering exercise, the panel received a debating paper on the technology, demand and legislation and guidance around telecommunications, interviewed the Development Control Manager and Development Plans and Conservation Manager; received a delegation from
the industry and also a presentation on supplementary planning policies and documents.

3.5 The review came to the following conclusions:

- South Staffordshire Council should develop, keep and update, a central register of Mobile Telecommunications Infrastructure, which is updated every year following notification of the operators intentions for the year which is available for public inspection and is placed electronically on our website.

- South Staffordshire Council should include in the Local Development Framework (LDF) local policies for dealing with mobile telecommunications infrastructure regarding visual impact (siting) and design.

- Following inclusion in the Local Development Framework, South Staffordshire Council should produce a Supplementary Planning Document, which emphasises a ‘precautionary approach’ towards development in residential and rural areas and addresses the disablement of apparatus, visual impact of the developments, which focuses around the issue of design, screening and where appropriate, siting; to ensure that the Council can balance its role as a local planning authority and the corporate aim of protecting the green belt more effectively.

4.0 Alternative Options Considered

4.1 There have been no alternative options considered other than as noted in the appendix of this report.

5.0 Reasons for Decision

5.1 In accordance with the Constitution, the Scrutiny review is being submitted to the Executive for adoption.

6.0 Links to Corporate Aims and Objectives

6.1 The subject of Mobile Telecommunications Infrastructure is most closely linked in with Aim 5: To Be A Well Managed Council There are also links to Aim 1: “To Be A Council Which Celebrates And Improves South Staffordshire’s Distinctive Environment”

6.2 Effective Overview and Scrutiny is closely associated with Aim 5; “To be a well-managed Council”

7.0 Scrutiny

7.1 This report was adopted by the Partnership and Strategic Services Scrutiny Panel on the 24th September 2009.

7.2 This report was adopted by the Overview and Scrutiny Committee on the 19th January 2010

8.0 Financial Implications

8.1 There are no financial implications arising from this report.
9.0 **Legal Powers for Proposed Action**


10.0 **Crime and Disorder Implications**

10.1 Section 17 of the Crime and Disorder Act 1998, places a duty on a local authority to consider crime and disorder implications and to exercise its various functions with due regard to the likely effect of the exercise of those functions on and to do all that it reasonably can to prevent crime and disorder in its area.

10.2 This review topic has no crime and disorder implications

11.0 **Equal Opportunities’ / Diversity Implications**

11.1 This report is not considered to have any adverse implications to and is considered to comply with, the Council’s equal opportunities policies.

12.0 **Sustainability Issues**

12.1 South Staffordshire Council is committed to the principles of sustainability. Tackling climate change is a strategic priority and protection and enhancement of our local environment is at the heart of our vision for local communities. As such the Council is committed to:

- Use resources efficiently
- Minimise pollution and waste
- Protect and enhance the local natural and built environments
- Provide services, which meet current local needs whilst ensuring our local environment is protected for future generations.
- Lead by example and consider the environmental impact of our decisions.

12.2 The conclusions of the Scrutiny Review concerning planning policies and supplementary planning documents impacts positively on environmental sustainability in South Staffordshire.

13.0 **Health and Wellbeing Implications**

13.1 There are no significant risk health and wellbeing implications arising directly from this proposed decision.

12.0 **Risk Assessment**

12.1 A risk assessment is not required for the purpose of this report.

13.0 **Consultation Undertaken**

13.1 No consultation has been undertaken in formulating this report.

14.0 **Category of Exempt Information**

14.1 This matter is not exempt information for the purposes of Part 1 of Schedule 12(A) to the Local Government Act 1972.
15.0 **Background Documents**

15.1 None

16.0 **Policy / Budgetary Compliance**

16.1 The proposed decisions detailed in the recommendations (2.0) comply with and support the Council’s overall policies and Corporate Aims and Objectives (6.0). No budgetary implications have been identified because of this report (8.0)

17.0 **Key Decision Information**

17.1 This is not a key decision as it does not involve expenditure (or savings) in excess of £300,000 nor is it significant in its effect on two or more wards or electoral divisions within the Council’s administrative area and has not, therefore, been included in the Forward Plan.

18.0 **Conflicts of Interest**

18.1 None declared

19.0 **Dispensations Granted by the Standards Committee**

19.1 None granted

20.0 **Appendix**

20.1 (a) A Review of Mobile Telecommunications Infrastructure in South Staffordshire

**Councillor B.J.W.Cox**

**Chairman of the Partnership and Strategic Services Scrutiny Panel**
A Review of Mobile Telecommunication Masts in South Staffordshire

Partnership and Strategic Services Scrutiny Panel
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(A) Map Of Mobile Telecommunications Base-Stations In South Staffordshire

(B) Letter From Iain Wright MP, Parliamentary Under-Secretary Of State (DCLG) Re: Mobile Telecommunications Infrastructure Scrutiny Review
Chairman’s Foreword

Mobile phones are an established part of our everyday life. In the UK alone, there are nearly 74 million handsets. Increasingly, this new technology is providing services beyond just telephone calls and is driving the increase in demand for handsets and services. It is reasonable that the operators therefore need to provide the infrastructure to support the network that users demand. Popularity of Internet has enabled this growth to occur in a relatively short space of time. Investment in high-speed data transfer protocols has meant that people are now able to sit in town centres, browsing the internet, emailing, watching videos on sites such as YouTube, or conducting business affairs in places other than the office. This ‘virtualisation’ of the way we can now communicate and conduct business is part of our everyday life.

Members understand the concerns of the public in relation to masts. However, as a local planning authority, it is not our role to govern the health standards which cover mobile telecommunications. We do however, following our evidence gathering process, understand how we can work with the operators and within the guidelines of legislation and Planning Policy Guidance, to provide more sympathetic and less intrusive infrastructure for our residents, who themselves are users of their services.

Brian Cox

Councillor B.J.W.Cox
Chairman of the Partnership and Strategic Services Scrutiny Panel
1. **Recommendations and Action Plan**

1.1 South Staffordshire Council should develop, keep and update, a central register of Mobile Telecommunications Infrastructure, which is updated every year following notification of the operators intentions for the year which is available for public inspection and is placed electronically on our website.

1.2 South Staffordshire Council should include in the Local Development Framework (LDF) local policies for dealing with mobile telecommunications infrastructure regarding visual impact (siting) and design.

1.3 Following inclusion in the Local Development Framework, South Staffordshire Council should produce a Supplementary Planning Document, which emphasises a ‘precautionary approach’ towards development in residential and rural areas and addresses the disablement of apparatus, visual impact of the developments, which focuses around the issue of design, screening and where appropriate, siting; to ensure that the Council can balance its role as a local planning authority and the corporate aim of protecting the green belt more effectively.
<table>
<thead>
<tr>
<th>Reference</th>
<th>Description</th>
<th>Responsible Member</th>
<th>Responsible Officer</th>
<th>Date to be completed by</th>
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<tr>
<td>1.1</td>
<td>South Staffordshire Council should develop, keep and update, a central register of Mobile Telecommunications Infrastructure, which is updated every year following notification of the operators intentions for the year which is available for public inspection and is placed electronically on our website.</td>
<td>Deputy Leader (Strategic Services)</td>
<td>Director of Planning and Strategic Services</td>
<td>3 months after adoption by the Executive</td>
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<td>1.2</td>
<td>South Staffordshire Council should include in the Local Development Framework (LDF) local policies for dealing with mobile telecommunications infrastructure regarding visual impact (siting) and design.</td>
<td>Deputy Leader (Strategic Services)</td>
<td>Director of Planning and Strategic Services</td>
<td>12 months after adoption by the Executive</td>
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<td>1.3</td>
<td>Following inclusion in the Local Development Framework, South Staffordshire Council should produce a Supplementary Planning Document, which emphasises a ‘precautionary approach’ towards development in residential and rural areas and addresses the disablement of apparatus, visual impact of the developments, which focuses around the issue of design, screening and where appropriate, siting; to ensure that the Council can balance its role as a local planning authority and the corporate aim of protecting the green belt more effectively.</td>
<td>Deputy Leader (Strategic Services)</td>
<td>Director of Planning and Strategic Services</td>
<td>12 months after adoption by the Executive</td>
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2. **A Review of Mobile Phone Masts in South Staffordshire**

2.1 The responsibility for planning policy falls within the remit of the Partnership and Strategic Services Scrutiny Panel. The portfolio, Strategic Services is held by Cllr David Billson and managed by the Director of Planning and Strategic Services, Andy Johnson.

2.2 The Partnership and Strategic Services Scrutiny Panel comprises:

- Councillor B.J.W Cox (Chairman)
- Councillor Mrs I.G.A Ford
- Councillor Mrs J.M Burton MBE
- Councillor D.J Clifft
- Councillor R.J Cope
- Councillor Mrs J.A Johnson
- Councillor R J Marshall
- Councillor R.E Moreton
- Councillor Mrs K.M Perry
- Councillor R.J Perry
- Councillor B Williams
- Councillor Mrs K.A Williams
- Councillor R Williams

2.3 During the review Councillor S.R.Lees was appointed Deputy Leader (Community Services). The vacant position on the panel, arising from the appointment was filled by Councillor R.J.Marshall.

2.4 The terms of reference were agreed at the first meeting:

- To investigate and understand the technology and the demand of mobile telecommunications in the UK and in South Staffordshire.
- To gain an understanding of network operators’ needs, the concerns of residents and the scope for South Staffordshire Council to be involved in discussions around possible solutions (e.g. via mast sharing, design and location)
- To examine how South Staffordshire Council can best balance its role as a Local Planning Authority and its aim to protect the Green Belt.
- To examine the health implications of mobile telecommunications, including its infrastructure.

2.5 During the review, the panel reached an early conclusion regarding the health issues surrounding mobile phone masts. Although health was included in the terms of reference to provide the panel with an overview of the issues; at their meeting on the 30th October 2008, Members agreed to focus on those areas over which they have more control and as such, Members agreed not to focus on the health aspects of telecommunications infrastructure.

2.6 Members heard from the Development Control Manager, the Development Plans and Conservation Manager, the Mobile Operators Association and representatives from three mobile telecommunications companies. Members also invited local pressure group F.A.M.E (Fights Against Masts in Essington), however the group was unhappy with the focus of the review and declined the invitation of the panel to give evidence in the review.

2.7 National Pressure Group 'Mast Sanity' also declined to partake in the evidence gathering process due to the Council being unwilling to pay
expenses for a speaker from the South of England, as Members wished to hear concerns relating to the Midlands region.

### 3. Mobile Telecommunications Technology

#### 3.1 Mobile phones first became widespread in the UK in the early 1990’s. The following graph shows the level of demand for handsets in the UK between 1987 and 2008

![Figure 1: Mobile Phone Usage 1987 -2008](http://www.mobilemastinfo.com/information/history.htm)

#### 3.2 The demand for such services and functionality has meant that the infrastructure required to deliver this has had to keep pace. As of 2008, there are 74 million active mobile phone accounts (either through contract or Pay As You Go).

#### 3.3 In the UK, there are more mobile phone subscriptions than fixed landline subscriptions, with market penetration rates of 93% and 90% respectively. However, calls originating from a mobile only accounted for 35% of total calls.

#### 3.4 In 2006, the total telecoms market was worth over £47 billion (5.5% of Total GDP), with £15 billion contributing to government finances. The mobile phone sector contributed £22 billion, which is 2.2% of UK GDP.

#### 3.5 Mobile phone systems are currently in a transition between second and third generation technology. Second generation mobile technology is digital and is most popularly associated with GSM (Groupe Spécial Mobile). It is the most common system for electronic delivery of data through communication devices and the GSM Association estimates that it accounts for over 82% of all mobile telephone calls. Other second generation systems include GSM, GPRS, EDGE (EGPRS), EDGE Evolution, CSD and HSCSD.

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1. Source: Mobile Operators Association
2. [http://www.mobilemastinfo.com/information/history.htm](http://www.mobilemastinfo.com/information/history.htm)
3.6 Higher-speed protocols such as EDGE and EDGE Evolution, based on 2G technologies, have been developed to run on existing networks and through existing infrastructure. They were developed initially by Cingular (now AT&T) in the United States. In the UK, only two providers support EGDE. These being Telefónica O2 and Orange.

3.7 Third Generation (3G) technology enable network operators to offer users a wider range of more advanced services while achieving greater network capacity through improved spectral efficiency. Services associated with 3G include wide-area wireless voice telephony, video calls, and broadband wireless data, all in a mobile environment. Additional features also include data transmission capabilities which enable multi-functional devices, to allow for mobile internet usage, emails and other recreational activities such as downloading music and streaming video direct to the device.

3.8 In the UK, five licenses were granted in 2000 to the main mobile network companies (Telefónica O2, Orange, T-Mobile, 3 and Vodafone) to provide third generation (3G) services. A condition of the license was that 3G services were available to at least 80% of the population by 31st December 2007. The UK auction issued five licences to and at the cost of: Hutchison 3G UK Limited (£4,385 million), Vodafone Limited (£5,964 million) BT (3G) Limited (Telefónica O2) (£4,030 million), One2One Personal Communications Limited, (T-Mobile) (£4,004 million) and Orange 3G Limited (£4,095 million).

3.9 Because the traditional 2G systems were designed for voice data and slow transmission, the rapid expansion of functionality and demand of wireless devices meant that a further high-capacity protocol needed to be developed, which resulted in the development (and rolling out) of 3G. At the expiry date of the 31st December 2007 coverage deadline, all 3G providers had achieved their 80% coverage rate condition.

4. Mobile Telecommunication Infrastructure Network

4.1 Mobile phone networks are a complex series of individual communications, resulting in the connection, which to the user appears seamless.

4.2 Current mobile phones connect to a cellular network of base stations (cell sites), which is in turn interconnected to the public switched telephone network (PSTN). Should the call be to another mobile, it is that routed then through the PSTN to the appropriate cell site. If the call is to a landline, it reaches the PSTN and then is transferred into the standard telecommunications infrastructure.

4.3 Mobile telecommunication networks are split into geographical regions and further again into ‘cells’. Mobile devices register with these cells which then allow them to operate. These cells overlap slightly to allow a smooth transition between cells when a device is mobile, ensuring no loss of signal when moving.

4.4 There are three types of cell. A ‘Macrocell’ provides the main coverage in a network and are identified by large masts (base stations). They must be placed in areas which are not obstructed by other buildings or terrain such as hilltops. ‘Microcells’ provide additional coverage, particularly where there are abnormally high numbers of users within a Macrocell (for example in busy urban areas). Microcells have a smaller range than Macrocells, typically 300m – 1000m. Often, these smaller antennas can be placed on or within street furniture (including signage). The smallest antenna is that of ‘Picocells’. A Picocell is very localised and is used to
provide a signal in buildings or shops, which would otherwise receive poor reception (or no reception at all).

4.5 All cells and antennas are limited by range and/or capacity. In cities, each 2G macrocell site has a range of up to approximately ½ mile, while in rural areas, the range is approximately 5 miles. In clear open flat terrain, a user may theoretically receive signal from a cell up to 25 miles away.

4.6 A standard 2G antenna can typically handle around 100-150 simultaneous calls. Because 3G operates at a different frequency and the range is more limited, cells utilising 3G technology are required to be smaller, resulting in potentially more masts. With 3G capable devices becoming more popular, it stands to reason that more base stations will be ultimately required. Currently there around 50,300 masts in the UK and to completely upgrade the mobile network, it is estimated that this could result in a further 3,000 more base stations. Of the 50,300 masts in the UK, over two-thirds are located on existing buildings, within street furniture or roof-tops and only 2% are situated on school buildings.

4.7 Cell networks are, assuming flat terrain and non-oversubscribed networks, hexagonal in shape. However, in reality the size and shape of the cells are dependant upon a number of factors. Principally the number of subscribers to that mast and the features of the surrounding areas, such as buildings, trees and hills, which can limit or inhibit signal transmission will determine the shape of the network.

4.8 Hexagonal cells are principally used to limit the amount of base stations needed. The layout of a series of cells are thus:

4.9 The common assumption is that the blue outline is the cell, which is incorrect. The base stations transmit inwards meaning that the actual cell is that outlined in red.

4.10 Hexagonal cells are used because they are the most efficient. When moving between cells, the handover is seamless and requires the least number of base stations. If the same scenario was applied using circular cells, there would be a gap between cells which would require a fourth base station (illustrated as the dotted line below) to cover the handover.

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3 http://news.bbc.co.uk/1/hi/technology/5140358.stm
4 http://www.mobilemastinfo.com/information/fact_sheets/third_generation_3G_a.pdf
5 http://www.mobilemastinfo.com/information/masts.htm
6 http://www.vodafone.com/start/responsibility/mpmh/mobiles_work.html
between cells. If the cells were placed closer together to make the requirement for a fourth base station redundant (i.e. all three overlap) then again, more base stations would be required due to the inefficiency of the circular shape.

4.11 The prevalence of base stations in an area is demand led, with more populated areas requiring a larger infrastructure to support the requirements of the population. The following graphs show the level of 2G coverage in the UK by operator (no graph available for ‘three’):
4.12 Total coverage of the UK by one or more operator of a 2G service is 99%. Coverage of the UK of 3G services is at least 80% as stipulated by the terms of the 3G licenses issued by the Government.

7 Maps taken from the OfCom website
5. **Prevalence of Mobile Telecommunications Infrastructure in South Staffordshire**

5.1 The publicly available OfCom tool to locate masts in the local area, ‘Sitefinder’, only provides information regarding based on town, postcode or street-name. Furthermore it is currently out of date and enquiries to OfCom about providing information on a local authority area basis proved problematic.

5.2 OfCom audit sites for their compliance against the ICNIRP standards for emissions and publish the results on their website. In addition to their standard audit, it is possible to request an audit on a particular site via the audit request form, available on the OfCom website.

5.3 Members received data from the operators regarding the number of masts and their locations in South Staffordshire from the Mobile Operators Association in 2008.

5.4 The data, at the time of the panel meeting, showed that there were 140 masts in South Staffordshire. This figure is unique masts, not unique installations, since, statistically, around 66% will be shared infrastructure.

5.5 The map is attached at appendix (a)

6. **National Planning Policies**

6.1 Planning policies concerning the installation of mobile telecommunications infrastructure are covered principally under Planning Policy Guidance 8 (PPG8). The guidance was released in 2001. PPG8 “should be used by local planning authorities as they prepare their development plans and may be material to decisions in individual applications for applications for planning permission and prior approval and appeals.”

6.2 PPG8 intends to balance and facilitate growth in the telecommunications market whilst balancing its environmental impact. Local planning authorities are expected to respond positively to telecommunications development proposals.

6.3 Operators submit, on an annual basis to the Development Control Manager a list of proposed sites that will be the subject of an application or where a site is being designated as having a proposed mast, which falls under General Permitted Development Order (PD).

6.4 Local authorities are strongly encouraged under PPG8 to undertake additional publicity that they consider necessary to give people likely to be affected by the proposed development an opportunity to make their views known to the operator.

6.5 PPG8 stresses the importance of environmental considerations when determining planning applications. Unless any proposed telecommunication development maintains “openness”, Green Belt development is considered inappropriate. However, inappropriate development may proceed unless very special circumstances outweigh the harm of the Green Belt. In terms of a definition of very special circumstances, PPG8 states that a lack of suitable alternative site, which would meet the needs of network coverage or capacity, might be considered as very special circumstances. It is important therefore; to

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8 [http://www.ofcom.org.uk/sitefinder/sitefinder](http://www.ofcom.org.uk/sitefinder/sitefinder)
understand what alternative sites have been considered by the operator when determining an application for a base-station.

6.6 Authorities are encouraged to assist applicants in identifying existing and potential sites by making suitable local authority owned property available to users. However, as a small district council, this is more problematic than for larger authorities due to the smaller amount of land or properties owned by the Authority in the area.

6.7 When determining planning applications, authorities should not seek to promote one company over another, or prevent development by one company over another. When determining planning applications, PPG8 explicitly states that it is not the role of the authority to question the need for the telecommunications infrastructure. Local planning authorities should recognise however that the greatest need for base-stations is usually in built up areas where there is the greatest density of mobile users, and following main roads, where the demands on network capacity is greatest.

6.8 Arguably, because the M6 and the M54 intersect in South Staffordshire, with the M6 running the length of the North of the district it is reasonable to conclude that in the surrounding areas to the motorway, there is an inevitable increase in the concentration of masts, due to the volume of handsets in the area.

6.9 PPG8 refers to the role of Local Plans in developing policies around telecommunications infrastructure. It specifically requests that Local Plans (the LDF) should include general policies on:

"The siting and external appearance of apparatus, including any local and landscaping requirements designed to minimise the impact of such apparatus on amenity, without inhibiting operational efficiency;"

6.10 The circumstances in which the local planning authority:

(i) may decide prior approval is required for the citing and appearance of certain telecommunications development
(ii) might intervene to seek the relocation of an antenna installed under permitted development rights, in order to minimise its effect on the external appearance of a building"

6.11 Furthermore, applications should not be refused on the basis of development plan policies, which take insufficient account of the growth and characteristics of modern technology.

6.12 Mobile operators are required under the terms of their licences to provide the local planning authority with 28 days notice of their intention to install any telecommunications equipment, except where they are submitting an application for prior approval or for planning permission.

6.13 In terms of property values, PPG8 is explicit in stating that when determining an application, it is not the role of the local planning authority to assess the alleged impact on property prices from any proposed development. PPG1 states that it is not for the planning to protect the private interests of one person against the activities of another.

6.14 To prevent multiple installations in single areas, PPG8 suggests local planning authorities investigate entering into a Section 106 agreement with the operators to ensure that new developments have capacity to encompass future mast sharing. Authorities are encouraged to maintain a
register of masts and other structures to which apparatus could be attached. Such a register will assist operators in considering possible antenna sites in a local authority area. If an operator makes an application relating to a location not on the register of sites, the authority may reasonably expect the applicant to show that no site on the register would present a practicable alternative to the location proposed. South Staffordshire Council has not used a Section 106 in this manner, but has, on previous occasions, used conditions to similar effect.

6.15 In seeking to arrive at the best solution for an individual site, authorities and operators should use sympathetic design and camouflage to minimise the impact of development on the environment. Operators are encouraged to provide examples of different design solutions. It should be borne in mind that some designs may not be suitable for future sharing. Where it is agreed that a site is suitable for mast sharing, it may be appropriate to install a mast specifically designed to facilitate its redevelopment for sharing.

6.16 In 1999, the government asked the NRPB (National Radiological Protection Board) to establish an independent expert group on mobile phones (IEGMP). The report was published in 2000 and is commonly referred to as the ‘Stewart Report’. In respect of base-stations, the report concluded “the balance of evidence indicates that there is no general risk to the health of people living near to the base stations on the basis that exposures are expected to be small fractions of the guidelines. However there can be indirect adverse effects on their well-being in some cases”.

6.17 The government accepted the ‘precautionary view’ suggested by the Stewart Report. PPG8 however states that there is no basis for further precautionary measures beyond those already imposed. PPG8 is explicit in its assertion that when determining applications 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.

6.18 Furthermore, it goes on to say:

“In the Governments view, local planning authorities should not implement their own precautionary policies e.g. by way of imposing a ban or moratorium on new telecommunications development or insisting on minimum distances between new telecommunications development and existing development”.

7. Local Planning Policies

7.1 Local planning authorities have the discretion to develop supplementary planning documents (SPD) for areas that are not prescribed in national legislation. South Staffordshire Council does not currently have any SPD relating to mobile telecommunications infrastructure. Initially, South Staffordshire Council had a policy in the Deposit Local Plan, but it was not retained. Following the development of the Local Development Framework, the Strategic Development department decided that there

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9 All information provided in this section is taken from PPG8
was adequate coverage in nationally prescribed legislation and therefore currently the Local Development Framework does not contain any policies with which to base SPD.

7.2 Members noted at their meeting on the 28th April that without a Supplementary Planning Document concerning telecommunications, working with operators to provide sensitive solutions was more difficult. Members referred specifically to a site in Wombourne, which was a development where the mast is designed to fit better into the woodland surrounding it. The installation can be seen below in mid-summer:

7.3

7.4 Members received pictures, taken from the website of the operator ‘3’, which demonstrated the types of masts which can be sympathetically created, to visually preserve the local area. The Panel was impressed with the sympathetic concealment of the masts, to discreetly blend into the area. The following pictures demonstrate a ‘before and after’ view of the mobile mast installation following remodelling using a company called ‘The Undetectables’.

7.5 The following is a shop in Sheffield where the operator dismantled the unused chimney and replaced it with an exact replica, containing the mobile mast within it. Figure 1 is the shop ‘before’ the remodelling. Figure 2, is the shop after the remodelling.
In Oldham, Stockfield Mill was an existing site with a cluster of mobile phone masts adorning the rooftop tower.
The operator took an existing wall and then extended it, placing the mast inside, to ensure the mast was not visually intrusive.

7.7 The Development Control Manager and the Development Plans and Conservation Manager attended the Panel at the third meeting of the review to give evidence. Members questioned how South Staffordshire Council can influence the visual impact of mobile base stations in South Staffordshire and to what extent the authority can best preserve the

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Photographs in paragraphs 9.5 and 9.6 Copyright of ‘three’. Used with permission
visual appearance of the district with the regulatory restrictions surrounding the determinations of applications.

7.8 It was noted that in some cases, where bespoke solutions were created to preserve the landscape, it was sometimes more difficult to share masts should notification be provided or an application approved. However, it may, in these instances require a modification of the remodelled design to extend the usage of the installation. However, often, when these installations are on privately owned land, control is limited, or even non-existent due to the demands (or lack of) by the land owner themselves.

7.9 At the meeting on the 28th April 2009, the panel received a presentation regarding the LDF and supplementary planning documents and how it is used in other authorities. Members of the panel thought any Supplementary Planning Document the Council produces around telecommunications should add to the process and not simply reinforce or duplicate existing guidance and / or legislation. However, the Panel considered that a lack of a supplementary planning document around the area of telecommunications diluted the control the Council had over the area.

8. **Mast Sharing and Council Land**

8.1 PPG8 mentions specifically the issue of sharing infrastructure between providers. Mast sharing however is, in some cases, more intrusive than erecting a new development. In instances where a mast is to be shared, the mast must be increased in height, with the original provider taking the top slot. The new provider then takes the place of the original provider.

8.2 As a small rural district Council however, the control or influence is more limited due to a lack of Council owned buildings and urban developments in the district. An extract from the Council’s asset register provides the following Council owned buildings or land in South Staffordshire:

- Council Offices
- Penkridge Depot
- Lane Green
- Hinksford Caravan Park
- Hilton Industrial Site
- Heathmill Enterprise Park
- South Staffs Business Park
- Landywood Enterprise Park
- Wombourne Enterprise Park
- Littleton Business Park
- Latherflood Close, Four Ashes Enterprise Centre
- Estate Improvements (Industrial asbestos removal)
- Forget Me Not Club, Codsall
- Public Conveniences (Various locations)
- Open Spaces (Various locations)

South Staffordshire Council does not own any land on which mobile telecommunications infrastructure is sited.

8.3 Members discussed decisions by authorities, which resolved not to use school land for mobile telecommunications. Members noted however, that this was not a refusal of citing mobile infrastructure in the authority’s area, since there is a difference between the acquisition of privately-owned land by the operators and the determination of a resulting
application, which is done by the local planning authority in accordance with legislation and with regard to relevant Planning Policy Guidance.

9. **Perceived Health Implications of Base-Stations**

9.1 Members noted at their meeting of the 30th October 2008 that health implications arising from the installation of mobile telecommunications infrastructure was an issue of concern to some members of the general public. Common illnesses cited are cancer, heart disease and references have been made to it as being a cause of suicide.

9.2 During the course of the review the panel received representations made by a third-party made regarding the health impact of mobile phone base-stations and their correlation to these health effects – principally, suicide and cancer.

9.3 The Office of National Statistics provides the following figures on the suicide rate in the UK.

![Graph showing suicide rates](http://www.statistics.gov.uk/cci/nugget.asp?id=1092)

9.4 It clearly shows the suicide rate decreasing in the UK between 1991 and 2007. In addition, overlaying the increase in mobile phone usage gives the following results, clearly indicating that despite the exponential increase of mobile phones, the suicide rate has fallen:

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Mobile Phone Usage Vs Suicide Rate

Source: National Office of Statistics and Mobile Operators Association
9.5 In terms of a direct link between cancer and mobile phone usage, it is clear from the following graphs that while mobile use has increased dramatically, cancer rates have not reflected this rise in key parts of the body. Particularly in those areas, which would be at greater risk due of the location of the phone during calls or storage when dormant.

9.6 The following data has been obtained from Cancer Research UK regarding cancer levels and the Mobile Operators Association regarding the number of subscribers.

The data shows the levels for the following cancers:

- Brain Cancer (Due to where the phone is held during a call)
- Stomach Cancer (Due to the proximity to where it is kept when dormant)
- Testicular Cancer (Due to the proximity to where it is kept when dormant)
- Vaginal Cancer (Due to the proximity to where it is kept when dormant)
Number of Mobile Phones vs Incidence of Brain Cancer (per 100,000 population)

Source: Cancer Research UK and Mobile Operators Association
Number of Mobile Phones vs Incidence of Stomach Cancer in the UK (per 100,000 population)

Source: Cancer Research UK and Mobile Operators Association
Number of Mobile Phones vs Incidence of Testicular Cancer in the UK (per 100,000 population)

Source: Cancer Research UK and Mobile Operators Association
Number of Mobile Phones vs Incidence of Vaginal Cancer in the UK (per 100,000 population)

Source: Cancer Research UK and Mobile Operators Association
9.7 The data clearly shows that while mobile phone use has risen 3050.55% over the period given, cancer has fallen in all key areas of the body, except testicular cancer which has risen slightly in the period given.

9.8 During the review, the panel received an allegation that Cancer Research UK was a recipient of funding from the Mobile Industry.

9.9 Cancer Research UK and The Mobile Operators Association were both contacted regarding this allegation. A spokesperson for the MOA issued the following statement.

9.10 “[The MOA asked] each operator to confirm whether or not since the publication of the Stewart Report in 2000 they had contributed financially to any scientific research carried out by Cancer Research UK. All five operators have confirmed that they have not.” In response to this, further representations were received and link was provided (extract of text below) which called into question the statement from the Mobile Operators Association:

9.11 “…The £42 million project involves construction of 14,000 square metres of research laboratories which will house up to 300 scientists. Funding is provided by Cancer Research UK (£14 million) and Hutchison Whampoa Ltd (£16.5 million), with the remainder coming from the University of Cambridge and an anonymous donor.”

9.12 In response, the operator provided the following response:

“Hutchison Whampoa Limited is the parent company of 3 UK Limited, and its Chairman is Li Ka-Shing.

Using text taken from the Hutchison Whampoa Limited website at: http://www.hutchison-whampoa.com/eng/index.htm you will see that the company:

“is a leading international corporation committed to innovation and technology with businesses spanning the globe. Its diverse array of holdings range from some of the world's biggest port operators and retailers to property development and infrastructure to the most technologically-advanced and marketing-savvy telecommunications operators.”

Here in the UK, Hutchison Whampoa owns and operates the port of Felixstowe in East Anglia amongst others. The Group also owns the Superdrug, Savers and The Perfume Shop chains, as well as 3 UK Limited. Li Ka-Shing, Chairman of Hutchison Whampoa Limited, is a well-known philanthropist. He has donated many millions to worthy and worthwhile causes around the world over the years through the work of his foundation, the Li Ka Shing Foundation.

A full, open and most importantly accurate report on this donation and others is shown on the Li Ka Shing Foundation website at:

http://www.lksf.org/eng/project/medical/cambridge/main01.shtml

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12 http://www.admin.cam.ac.uk/news/press/dpp/2004041601
The report on the Cambridge University website has a number of errors within it, most notably its rendition of Li Ka-Shing’s name.

The notes for editors section of the webpage gives background information on Hutchison Whampoa Limited’s interests in the UK, without clearly identifying that the donation comes from the Li Ka-Shing Foundation.

Although the Cambridge University website report is not explicit in this regard, I can confirm that there is no link between the donation and the activities of any of the UK interests of Hutchison Whampoa Limited, including 3 UK Limited.”

9.13 The Stewart Report (commissioned by the Government in 1999 as an independent review body to examine the impact of EMFs) concluded that there was no known direct evidence of any adverse health implications from using mobile phones, but due to a lack of consistent evidence, a precautionary view should be adopted, particularly in usage by children while more research is carried out. The findings of the Stewart report underpin current government policy, both in terms of their view of perceived health implications and planning policy.

9.14 One of the principal conclusions of the Stewart Report acknowledged that although there was scientific evidence to support the assertion that there are adverse health benefits to people who viewed themselves to be sensitive to RF radiation, the balance of evidence to date suggests that exposures to RF radiation below NRPB and ICNIRP guidelines do not cause adverse health effects to the general population”, and that [the Stewart Reports concludes] “that the balance of evidence indicates that there is no general risk to the health of people living near to base stations on the basis that exposures are expected to be small fractions of guidelines. However, there can be indirect adverse effects on their well-being in some cases”13

9.15 During the course of the review, it was agreed that the Head of Governance and Scrutiny Services should write to the MP for South Staffordshire, Sir Patrick Cormack, on behalf of the Panel to request the latest Government research into the health implications of mobile phones.

9.16 A response was received on the 1st May 2009, on behalf of Sir Patrick which included a response from the Department for Communities and Local Government that outlined work undertaken since the publication of the Stewart Report in 2000.

9.17 The response from Iain Wright MP, Parliamentary Under-Secretary of State, provided some history around the topic and included quotes from the Stewart Report. It further advised that the National Radiological Protection Board published an update of the Stewart Report in 2005 entitled ‘Mobile Phones and Health’. The report concluded “the Board believes that the main conclusions reached in the Stewart Report in 2000 still apply today and that a precautionary approach to the use of mobile phone technologies should continue to be adopted”. The letter went on to say that “since then [the first Stewart Report], the widespread development and use of mobile phones world-wide has not been accompanied by associated, clearly established increases in adverse

health effects. Within the UK there is a lack of hard information showing that the mobile phone systems in use are damaging to health. It is important to emphasise this crucial point”.

9.18 The letter further states that ongoing research is taking place through the Mobile Telecommunications and Health Research programme (MTHR), which is jointly funded by the industry and government. The letter is attached at appendix (B).

10. **Evidence Gathering**

10.1 As part of the review, Members received evidence from a variety of sources. Desk-based research on the background to the technology was conducted and presented to Members at the second meeting of the review.

10.2 Members further received a presentation from the Mobile Operators Association.

10.3 At the meeting on the 30th September, Members received evidence from the Development Control Manager and the Development Plans and Conservation Manager.

10.4 Members gathered evidence around the planning process, national planning guidance and local policies and received a presentation on LDF policies and Supplementary Planning Documents.

10.5 Members also requested assistance from the MP for South Staffordshire, Sir Patrick Cormack.

10.6 The Development Control Manager informed Members that there are two methods a development comes to fruition. Through the planning application process and through prior approval. At South Staffordshire Council, applications for telecommunications infrastructure are automatically sent before the Regulatory Committee for determination. Applications that require prior approval (masts which are under 15m in height) are dealt with by the Development Control Manager under delegated authority.

10.7 Members received data from the Development Control Manager regarding the number of mast applications (both full applications and those determined under prior notification). There were a total of 51 mast applications between 1998-2008 (up to the 30th October 2008) and in the last five years, there has been 26. Of the 26 applications in the last five years, 21 were dealt with under prior notification. The size of the masts ranged from 11.7m up to 20m.

10.8 On the date of the meeting, the Development Control Manager stated the Mobile Operators Association had submitted the Annual Rollout Plan for 2009 that day. The Development Control Manager advised members that the operators were seeking seven new masts in the forthcoming year, but had potential for a further four, since planning permission was granted on sites which had not yet been developed.

10.9 Members questioned the concentration of masts. In appendix (a) of this report, a map detailing this information is provided. The map clearly illustrates a concentration of masts in areas. Principally, it can be seen
from the map that in larger settlements and along the main transport corridors, the concentration of masts is higher.

10.10 Members questioned the use of conditions on applications, to encourage site sharing and sympathetic solutions. The Development Control Manager stated that conditions on applications had been used successfully in the past, in particular around managing the concentration to promote the sharing of masts in any given area.

10.11 Members of the panel asked for information regarding the consultation procedure for mobile masts, both in circumstances relating to a full application and those which are received under prior approval and differences relating to the two. The Development Control Manager informed Members that the process for consultation was the same process under Prior Approval as a full Planning Application.

10.12 The Development Control Manager, in response to a question from the Panel, outlined how the operators decide on a location. The operators use a ‘traffic light’ system of potential sites, coloured green, amber and red. Sites which are desirable to the operator are marked as ‘green’ moving to less suitable sites being marked as amber and those that are deemed inappropriate, for example in areas the operators would expect strong local opposition are marked as ‘red’. The Development Control Manager confirmed that as an authority, South Staffordshire Council does work with the operator to examine potential sites. Operators are expected to provide an options appraisal as to where they have considered other land and they are also, as part of the application process they are expected to demonstrate why no suitable mast-sharing solution is appropriate. Currently, approximately 66% of masts country-wide are site-sharing solutions.

10.13 The Chairman of the Panel asked the Development Control Manager that in light of PPG8’s suggestion to utilise Section 106 agreements to promote mast sharing, whether this Council employed such a technique. The Development Control Manager confirmed South Staffordshire Council did not. The Development Control Manager went on to pose a hypothetical situation where would it be better to have 2x15m masts or 1x25m mast in a single area, with regard as to what was more visually intrusive. The Development Control Manager stated, following a question from a Member regarding overcrowding on a shared site, as to the use of conditions to control further additions to masts was a successful method of controlling installations.

10.14 One example cited was where a condition was attached to a mast installation which allowed for future sharing, but should one of the further operators remove their presence from the mast, then it would be dismantled as a whole. The panel agreed that conditions, as opposed to Section 106 agreements, referred to in PPG8, was an effective way to influence further mast installations.

10.15 The panel then questioned the Development Plans and Conservation Manager regarding local policies that South Staffordshire Council has adopted. The Development Plans and Conservation Manager confirmed that the Council previously had a local policy in the Local Plan, but the policy was not deemed appropriate by Central Government, since it directly contradicted PPG8. The policy was not saved.
The Development Plans and Conservation Manager and the Panel debated the need for a supplementary planning document and to the form it may take. The Development Plans and Conservation Manager stated that LDF policies around telecommunications could be standalone policies, or could piggyback existing environmental policies. Members at their meeting of the 30th October reached no firm conclusions, but further work was requested around what local authorities do regarding Supplementary Planning Documents and telecommunications.

At the meeting on the 11th November 2008, the Panel received a delegation from the Mobile Phone Operators and the Mobile Operators Association. The delegation comprised:

- Nicola Davies, Council Liaison Manager - Mobile Operators Association
- Angela Johnson, Community Affairs Manager - O2
- Brian Spooner, Community Affairs Manager - 3
- John Shaughnessy, Community Affairs Manager - T-Mobile

Members of the Panel were provided with literature from the Mobile Operators Association, Department of Health and the World Health Organisation. The presentation covered the technology, the demand-led nature of the product and services, the planning policies around mobile telecommunications, various health reports and government reviews of the technology and how the operators work with local authorities to provide more sympathetic solutions.

The MOA gave a presentation to the Panel which covered the main areas of the review. The presentation was well received by Members. During the presentation, Ms Davies noted that the networks of the operators were maturing and the numbers of new installations required was becoming less and less. However, with the advent of 3G technology, in some cases further base-stations were required due to the smaller cell size of the technology.

Members questioned the operators following the presentation. The question of design was raised by the panel and their visual intrusion on the landscape. Mr Shaunessey stated that although mast design had changed over the years, citing the slimmer poles and smaller housing at the base of the mast, though the basic design principles were fixed due to the limitations of the technology, however improvements in technology were always being made that resulted in more discreet solutions. Mr Spooner further explained that all operators were reticent to build new installations, due to the large cost involved in designing, building and integrating into the infrastructure and as a commercial organisation this was never desirable.

A member of the panel asked what the tolerance was in terms of how far the mast can be placed from its ‘ideal’ location. Angela Johnson of O2 stated that their agents are often given very precise areas in which a mast can be placed. In some cases as little as 100yards. If masts are too close to each other, it causes interference. A member of the panel made reference to the fact that they had been informed it could be, in certain instances, up to six miles away. Ms Davies from the MOA stated she was not aware of any circumstances where a tolerance of six miles would be appropriate or acceptable for any operator.
10.22 The panel questioned the network requirements in relation to the motorway network. In South Staffordshire there are two motorways cutting vertically and horizontally through the district. These being the M6 and M54 respectively. Areas with motorway access in the district (for example Essington) meant, inevitably, a higher concentration of masts were needed to accommodate the local population and those people passing through on the motorway network which the operators accepted could cause considerable local concern from residents.

10.23 The operators stated that the motorway networks were one of the first areas that were covered by networks and that coverage for this had largely reached saturation point. New developments in these areas were to provide a better signal and / or accommodate increased usage from within the resident population nearby.

10.24 During the questioning of the delegation, Brian Spooner and John Shaunessey stated that although they were competing for business, the two operators were working on a ‘shared signal’ solution; whereby the signal frequency was shared and then split out depending on the operator at the base-station. The net result of this was aimed at reducing the numbers of masts, which would be welcomed by the operators as it would reduce costs and by the residents because it would result in fewer masts. Both 3 and T-Mobile stated that in their roll-out plans for the forthcoming year no new developments were thought to be needed and as such, should the pilot be successful, a reduction of masts should be noticeable by 2010.

10.25 Members questioned the delegation on matters concerning health. Angela Johnson from O2 stated categorically that there was no proven link between cancer clusters and mobile phone infrastructure. She stated that Mobile Telecommunications was one of the most researched topics of recent times and all major health organisations, such as the World Health Organisation and the Health Protection Agency all concluded that on the balance of evidence, mobile telecommunications did not cause cancer.

10.26 She further stated that future research will be carried out on the handsets and not the base-stations, since the handsets are more powerful than the base-stations themselves which emit an electro-magnetic field thousands of times lower than the international standard (ICNIRP).

10.27 When questioned further around mast-sharing and the potential issues around increased radiation, the panel were told that placing another mast on an existing site did not necessarily double the emissions, since the masts were usually pointing in different directions. In instances of mast-sharing, it is the responsibility of the ‘additional operator’ to ensure the mast as a whole meets the standards for emissions.

10.28 Members questioned the extent to which satellite phones could be used to promote a reduction in masts. The operators explained that satellite phones are usually much higher powered handsets and were they to be used for everyday calls, they would probably not meet the government guidelines on emissions.

10.29 South Staffordshire is predominantly rural and the panel saw pictures of masts in rural areas which were visually intrusive. Due to the nature of existing (non-telecommunications) infrastructure already in the district,
for example pylons and street lighting, members questioned to what extent these could be utilised.

10.30 The delegation from the operators told Members that when looking at potential developments, suitable, less intrusive places were always examined. Brian Spooner stated that pylons were often deemed unsuitable due to the high voltage running through the infrastructure and the health and safety aspect of maintenance on masts. Furthermore, in very rural areas and despite being on pylons, a lack of suitable electrical power meant the masts could not work effectively, or could, but at great cost. Utilising street furniture was a preferred method due to existing infrastructure and suitable power sources and during the presentation; Members received a slide detailing street furniture which was sympathetic to the surroundings.

10.31 On the 28th April, 2009, the Panel received a presentation around local planning policies and supplementary planning documents. The panel received a précis of some examples of supplementary planning documents from other authorities and discussed to what extent they could assist Members in the determination of applications.

10.32 The Panel, following this examination of examples of supplementary planning documents, noted that areas where they are helpful in assisting with the determination of applications are in siting (to a limited degree) and design in ensuring that installations were as discrete as possible and where screening can be best employed to minimise the visual impact on the surrounding area.

10.33 It was also discussed to what extent the Panel could influence the content supplementary planning document through the review process. Members noted that while the panel could make recommendations to the Deputy Leader (Strategic Services), any supplementary planning document would come forward to the Regulatory Committee and be subject to the normal consultation procedure, including public consultation before being approved by Council.

10.34 The Panel agreed that the scrutiny review should make a recommendation to include a policy on telecommunications in the LDF and to further recommend that the Council develops a supplementary planning document that outlines a precautionary approach and focuses on the visual impact and siting of masts, in so far as the Council is able to do so.

11. Conclusions

11.1 The panel wished to thank all those who contributed to the review and found it very informative.

11.2 Members agreed that the Council should produce a central register of locations which should be publicly available.

11.3 Members agreed that a lack of local policies in the Local Development Framework and a Supplementary Planning Document around Telecommunications in South Staffordshire diluted control over the impact of developments in the District and noted that the operators were willing to work with local planning authorities in agreeing more sympathetic solutions.
12. Appendices

12.1 (a) Map of Mobile Telecommunications Base-Stations in South Staffordshire

(b) Letter from Iain Wright MP, Parliamentary Under-Secretary of State (DCLG) re: Mobile Telecommunications Infrastructure Scrutiny Review