

**FRESHFORD & LIMPLEY STOKE NEIGHBOURHOOD PLAN
FACILITIES & SERVICES WORKING GROUP MEETING**

Date: 18.09.2012

Venue: Meeting room Inn at Freshford, 7.30pm

Present: Mike Newby, John Adler, Nick Catcheside, John Ager, Louise Fleming, Mark Burchill, Lucilla Shirley, Dan Towner

Apologies: Roger Purcell, Maureen Delap, Claudia Towner, Tessa Moriarty, Gitte Dawson

Issue/Concept/Idea/Problem ()**

Developing and improving communications infrastructures, including phone networks and broadband

Matters arising from meeting 11th September 2012

Louise Fleming produced an initial report on the Neighbourhood Hub. This report will be emailed to all members of the working group. The report sets out a preliminary wish list of needs/desires for the community, with a next step structure and format. This list will require prioritization and discussion with other working groups as some elements of the wish list will have already been discussed by the other groups.

All committee members to review the content of the report and e-mail Mike Newby with your edits to it.

Mike will then produce a third draft of the report, incorporating everyone's input.

Initial resolution and ideas to develop in more detail ()**

Nick Catcheside updated the group on the progress of rural broadband within the community.

The Limpley Stoke Exchange is situated in Middle Stoke near the Rose and Crown pub. The current maximum broadband speed is 7.1mb. There are engineers working on the Exchange at the moment to improve coverage to 8-10mb.

There is a clear need to improve broadband speed for businesses in the community.

Options

Fiber optic cables to the LS Exchange – This option would enable the community to get up to 25mb broadband speed. This would be adequate for day-to-day community use. Taking the cables to the individual properties would give homes over 100mb. Improved broadband coverage is unlikely to happen until at least 2015 as it is not a priority for BT. It is costly for them to install and there would be the potential for competitors to take over their customers once the work has been completed.

High speed Broadband through mobile coverage

Dan Towner a consultant engineer with a company that makes small cell base stations spoke to the group about the options for providing high speed broadband through mobile coverage.

In areas of poor coverage, the typical solution that most people think of is to have a mobile phone mast installed. This is not a viable option for our area. The main problems are:

- mobile phone masts are expensive to plan, install and operate. An operator

would be reluctant to install a mast if it doesn't pay for itself, and since the area suffering poor coverage is relatively small, with few subscribers, no operator will see a return on their investment.

- Even if you persuaded one operator to install a mast, this doesn't particularly help with other operators. Maybe it would give better coverage for one operator, but what about others? Which operator would you choose? Presently operators don't share masts that much, and when they do they often only share the tower itself, and duplicate the electronics. Thus, the operating cost for the operator still isn't that reasonable, even if the cost of planning and installing the mast can be shared. There is technology, which allows operators to share the entire mast (including the electronics and hence operating costs), but this isn't common.
- Telecomms technology is advancing rapidly, and the traditional mobile phone mast is gradually being superseded for some applications (see for example, [`The death of the base station`](#)). Operators are starting to use `small cell networks', this is likely to be a better way of providing coverage for our area than a traditional mobile phone mast.
- Current mobile phone masts typically serve large geographic areas (maybe up to a 40km radius in some cases). Operators are starting to replace these single large masts by a network of much smaller masts. These provide lots of benefits, including lower running costs, more efficient use of radio spectrum, improved battery life of handsets, more resilience to equipment failure, and so on. These small masts can cover areas of a few tens of metres, up to several kilometres. Unlike the big masts, which require big towers, and big boxes of electronics, small cells are physically small enough to be fitted to street furniture (e.g., <http://3g4g.blogspot.co.uk/2012/05/telefonica-uk-london-small-cells-wi-fi.html>). In fact, they are ideally located on telegraph poles which provide network access, power, height and where they visually unobtrusive. One of the major uses of these small cells is to specifically improve coverage in rural areas like ours (Vodafone [tried this in early 2012](#)). If we could persuade operators to install rural small cells in our community, then it is likely this will solve our coverage problems.

It is worth noting that the smallest of small cells is called a residential femtocell, and is designed to provide coverage to a single household. The femtocell plugs into a home broadband connection, and provides coverage for a radius of about 100m. Dan has a Vodafone [Sure Signal](#)(which is what he brought along to the meeting) and it means that although he has no `real' coverage where he lives in Park Corner, with the femtocell switched on he has good coverage in his house, garden, and a little way up and down the road. Vodafone can provide these free of charge on request, and other operators can also provide them, although they may make a charge. As a short-term solution, if anyone in this area wants to quickly improve their coverage without waiting for the installation of a rural small cell, they can get in touch with their operator and ask them for a femtocell.

Many deployed small cells are 3G only. This will change, as people demand higher bandwidths to their mobile handsets, and make greater use of data coverage as opposed to voice-call coverage. To address these concerns the next generation standard referred to as 4G is starting to gain traction. This is also fuelled by consumer demand as high-end devices like the HTC and iPhone get 4G. LTE is starting to be [rolled out in the UK](#).

- **It is important to note that using small cells for mobile coverage is**

highly likely to work out. Using them to provide improved broadband is much less certain. Also, using mobile broadband would be considerably more expensive than fixed line broadband, so isn't necessarily a good option.

Communications

- Can businesses put information about the services they provide on the village websites?
- Can the websites be further developed to help support the community further? Andrew Orme and Dan Towner are working together to develop the Freshford Website further to enable it to be more useful for the community.
- Is there the option to have a website that could serve both Freshford and Limpley Stoke? It was felt that many people like the fact that the two villages have different identities and would not like to just have one website, however there is the opportunity that they could share links to facilities such as a shared calendar, or hall booking facilities.

Actions/research to be undertaken and by whom. External help/consultancy required? Possible work with another of the working groups.

Mobile broadband

- It is unlikely that a mobile phone mast would be installed, and devoting time and effort to trying this is unlikely to be successful.
- Small cell technology, which operators are already starting to use to address rural coverage problems, is likely to be a much better solution
- If any effort is put into trying to improve coverage, then it may be better directed into trying to get operators to install their small cell technology in our area
- Even if we do nothing, coverage is likely to improve within the next few years anyway
- In the short term, we could publicise the way that local residents can ask their operator to give them a residential femtocell. I include a brief list of some of the operators below.

Here is a short list of some of the UK operators who offer residential femtocells.

Vodafone - [Sure Signal](#)

O2 [Boostbox](#)

3 [Home Signal](#)

Results/conclusions to be brought back to Working Group – ()**

Date of further review:

- The group recommend that the 'small cell base' masts be taken forward as an option to improve broadband coverage within the two villages.
- Promote this option to the community via village websites/Bulletin and Clarion.

Any other issues for resolution

None

Issue resolved/abandoned/added to another issue

Conclusion reached and taken to Management Group
None

** The information in these two sections will be published on Freshford and Limpley Stoke Village Website