



Norfolk County Council



PUBLIC CONSULTATION

Better Broadband for Norfolk

Consultation start date

Wednesday 29 February 2012

Consultation end date

Monday 2 April 2012

EXECUTIVE SUMMARY

Access to fast and reliable broadband is essential for the growth of the Norfolk economy and is important to people living and working in Norfolk. In particular in rural areas, there are large parts of the County underserved by broadband, having either no or very slow broadband connectivity. Current services are based mainly on copper line services from BT exchanges, although services based on other technologies are available. For most services, actual broadband speed depends on the length of copper line from the BT exchange to the property, with speeds falling as the distance increases. Consequently, over 50,000 properties in Norfolk either have no broadband or download speeds of less than 2Mb/s based on fixed line services.

Whilst many properties can receive basic broadband services of 2Mb/s or more, National and European Union policy reflects the importance of the much faster speeds obtainable from 'Next Generation Access' broadband services, that are based wholly or partially on fibre optic cable. There are currently very few areas of Norfolk where the public can receive these services, limited to those areas with access to cable services from Virgin Media.

The Better Broadband for Norfolk project aims to address this, by giving gap funding subsidy to a private sector broadband infrastructure provider to finance the deployment of a 'Next Generation Access' network for as much of Norfolk as possible, and to ensure access to 2 Mb/s broadband speeds for the remainder of the County.

It is important that the available public funding is targeted where it is most needed and does not unnecessarily duplicate current or planned services. Accordingly, this consultation has three main purposes:

1. To set out Norfolk County Council's understanding of the extent of existing broadband infrastructure and services in Norfolk and to ascertain whether this information is accurate by feedback in response to this consultation. This includes what broadband services people in Norfolk do actually receive.

2. To explain Norfolk County Council's proposed project of public sector investment to achieve Better Broadband for Norfolk.

3. To ascertain if there are any credible investment plans for similar/comparable projects that should be taken into consideration in deciding where to target public sector investment.

Feedback to this consultation is invited from all interested parties. This includes existing or potential broadband network providers, internet service providers and businesses and residents of Norfolk and neighbouring counties.

This consultation seeks to ensure that public sector investment in broadband is targeted where it is needed and where commercial providers will not provide these services themselves.

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1. Introduction

1.1 Project Purpose

The purpose of the Better Broadband for Norfolk project is to deliver significant improvements to the broadband services available in Norfolk to both residential and business customers. The high cost of delivering commercially sustainable broadband in rural locations has resulted in large parts of Norfolk having poor or no broadband capability. The County Council has identified broadband as a key economic enabler.

Alongside this, Broadband Delivery UK (BDUK) is managing the Government's initiative to provide improved broadband for the UK. The initiative aims to provide a minimum of 2Mb/s (Megabits per second) broadband for the whole of the UK and NGA (Next Generation Access) 24Mb/s+ broadband for 90% of the UK by March 2015. BDUK is currently procuring a Broadband Delivery Framework of suppliers who can provide the infrastructure needed to enable delivery of better broadband services. Norfolk County Council will place a contract with one of these suppliers to achieve the Government's objectives with resulting economic and wider social benefits.

Through this contract, the Better Broadband for Norfolk project will provide broadband infrastructure across Norfolk that is capable of directly supporting the county's long-term aspirations:

- An inspirational place with a clear sense of identity.
- A vibrant, strong and sustainable economy.
- Aspirational people with high levels of achievement and skills.

The Better Broadband for Norfolk project is expected to deliver significant economic benefits:

- 1,337 additional jobs over 10 years (equivalent to 0.61% of Norfolk's current private sector employment).

- £88 million in additional annual GVA (Gross Value Added) to Norfolk's economy by 2021/22, equivalent to 0.64% of Norfolk's current total GVA. Discounting at 3.5%, as per HM Treasury guidance, the present value of the net GVA impact is £401 million over a 10 year appraisal period.

1.2 Policy and Perspective

Norfolk policy perspective - Organisations and individuals across Norfolk have recognised for some time that improving broadband is a key priority for the county. Currently more than 50,000 private and commercial properties across the county are in broadband 'not spots' either having no broadband access or suffering very slow internet speeds of less than 2Mb/s via fixed line services.

National policy perspective - The UK is well aware of the inadequacies of its existing broadband infrastructure. It has identified these inadequacies in the course of its work to develop a National Broadband Strategy, which in turn is consistent with the action required of Member States by the European Commission in its Europe 2020 Strategy. That strategy promotes targeting public funds on areas not fully served by private investments and that is what the UK seeks to facilitate through the BDUK scheme. It targets public funding at areas that have been identified as lacking adequate basic or NGA broadband infrastructure and that are unlikely to be served by such in the near future.

The Digital Britain report made key recommendations to ensure that all parts of the UK have access to high speed broadband, in particular a commitment of 2Mb/s to all premises by 2015. This has been taken up by the UK Government with an aspiration "*to deliver the best superfast broadband network in Europe by 2015*" (Department for Innovation and Skills - BIS)

The European Union perspective - A Digital Agenda for Europe is one of the seven flagship initiatives of the Europe 2020 Strategy, which states:

“The ICT sector is directly responsible for 5% of European GDP, with a market value of €660 billion annually, but it contributes far more to overall productivity growth (20% directly from the ICT sector and 30% from ICT investments). This is because of the high levels of dynamism and innovation inherent in the sector, and the enabling role the sector plays in changing how other sectors do business.”

The key areas for EU Digital Agenda are:

- Broadband targets: improvements to connectivity and performance.
- Digital single market: e-commerce.
- Digital inclusion: increasing the percentage of the population confident to use technology.
- Increase in uptake of public services through online interactions.
- Growth of research and innovation in technology.
- Developing low carbon economy through better use of technology.

1.3 Aims and Objectives

The objectives of the Better Broadband for Norfolk project are to:

- Provide NGA broadband speeds for a large part of the county. This should deliver a download speed of 30Mb/s or in any event more than 24Mb/s. This will create higher ‘speed uplift’ leading to the largest economic and other benefits.
- Achieve 2Mb/s broadband speeds as a minimum, right across Norfolk. It is expected that a mix of technologies will be required to achieve this objective.
- Enable the infrastructure implementation to be complete by March 2015.
- Create a long-term solution that provides definable ‘future proofing’. This means that as applications requiring faster broadband increase, it must offer the potential to keep pace with these demands.

- Be affordable to customers and continue to offer value for money over time.

The project will prioritise based on the following principles:

- NGA broadband infrastructure should cover as many properties as possible across Norfolk.
- There should be an at least 2Mb/s service available for all Norfolk properties at an affordable cost.
- Norfolk's Enterprise Zone sites; South Denes in Great Yarmouth and Beacon Park, Gorleston are early priority areas for NGA broadband.
- Also, areas of Norfolk that have a concentration of business subscribers as a proportion of total subscribers that exceed 10% (the average proportion is approximately 8%) will be prioritised as long as this objective does not impact on the viability of the rollout overall.

1.4 Specifications

The broadband network delivered by the selected supplier will have the following high level specifications:

Download and upload speeds

For as much of Norfolk as possible, the network should deliver for customers broadband services with NGA download speeds of 30Mb/s or in any event more than 24Mb/s with a minimum suitable upload speed. This will include the ability to support symmetric NGA for customers who require it. For the rest of Norfolk where it is not possible to deliver NGA services, broadband service customers should have minimum download speeds of 2Mb/s.

Geographical coverage

The project will target all properties within Norfolk geographical boundaries. In addition, companies on the BDUK Delivery Framework bidding for the Norfolk project will be asked for potential options for properties identified within the area a 10km distance from Norfolk shown at Maps B & D annexed

to this document. These options will be taken up where they are proven to be economically advantageous and agreed with the neighbouring county.

Access

It shall provide wholesale broadband services capable of use by retail internet service providers to deliver broadband services to residential and business customers. It will provide an 'open' infrastructure for the minimum seven years required by EU State Aid rules. This means that it will not be restricted to any one service provider, and customers should have a choice as to who provides their broadband services via the subsidised network.

1.5 Procurement Approach

Norfolk County Council is bound by EU procurement rules and the Public Contracts Regulations 2006 as to how it purchases the broadband network. Therefore, Norfolk County Council intends to procure the broadband network using the BDUK Broadband Delivery Framework that is presently being procured by the DCMS (Department of Culture, Media and Sport) under Official Journal of the European Union (OJEU) Reference 2011/S122-202671. Norfolk County Council is working with BDUK in the procurement of this Framework Agreement as Better Broadband for Norfolk is one of the first projects that will call-off a contract from the completed Framework. It is intended that Norfolk County Council will commence its mini-competition exercise to select a supplier from the Framework immediately following the completion of the procurement of the Framework, in April 2012. When Norfolk County Council has completed the mini-competition exercise, it will have selected a supplier with whom to enter into a contract.

The Framework presumes the use of the gap fund subsidy commercial model, where the private sector invests alongside a public subsidy to provide broadband to areas where there is not otherwise a viable commercial market. Under the Framework, the supplier takes the risk of implementing and operating the network and the risk of ensuring its commercial success. The different funding sources used, and EU State Aid rules, entail specific limitations on what types of cost the funding can subsidise. Once the network

is in place and has attracted enough customers, the supplier should receive customer revenues (through retail service providers) that cover its operating and maintenance costs and generate sufficient profit to provide the intended return on its investment. Particular features of the procurement are:

- The procurement of the Framework and subsequent mini-competition will ensure the most economically advantageous offer is received from a supplier for the Norfolk project.
- The framework process starts from a point of technical neutrality. It is recognised that the market is best placed to determine the appropriate mix of the different technologies available, which will be evaluated in accordance with the cost and quality of the solution they offer.
- How potential suppliers propose to make appropriate use of existing infrastructure will be tested through the evaluation at both the framework agreement and call-off contract stages of the procurement.
- The selected supplier will be obligated to allow effective wholesale access to the subsidised infrastructure installed. Contractual conditions will ensure that such access is offered on fair, reasonable and non-discriminatory terms.
- There will be a mechanism for benchmarking pricing for wholesale access for retail service providers to use the subsidised infrastructure.
- A claw back arrangement will operate to prevent over-compensation to the supplier from public subsidy where the supplier makes excess profits, with a mechanism for re-investment of over-subsidy.

1.6 State Aid

EU State Aid rules will apply to the proposed public sector investment from the project. These rules aim to minimise any distortion of competition within the EU arising from any aid or subsidy granted to a commercial undertaking by the public sector. The project will only invest where it is compatible with these rules. To ensure this, the project will rely on the BDUK State Aid

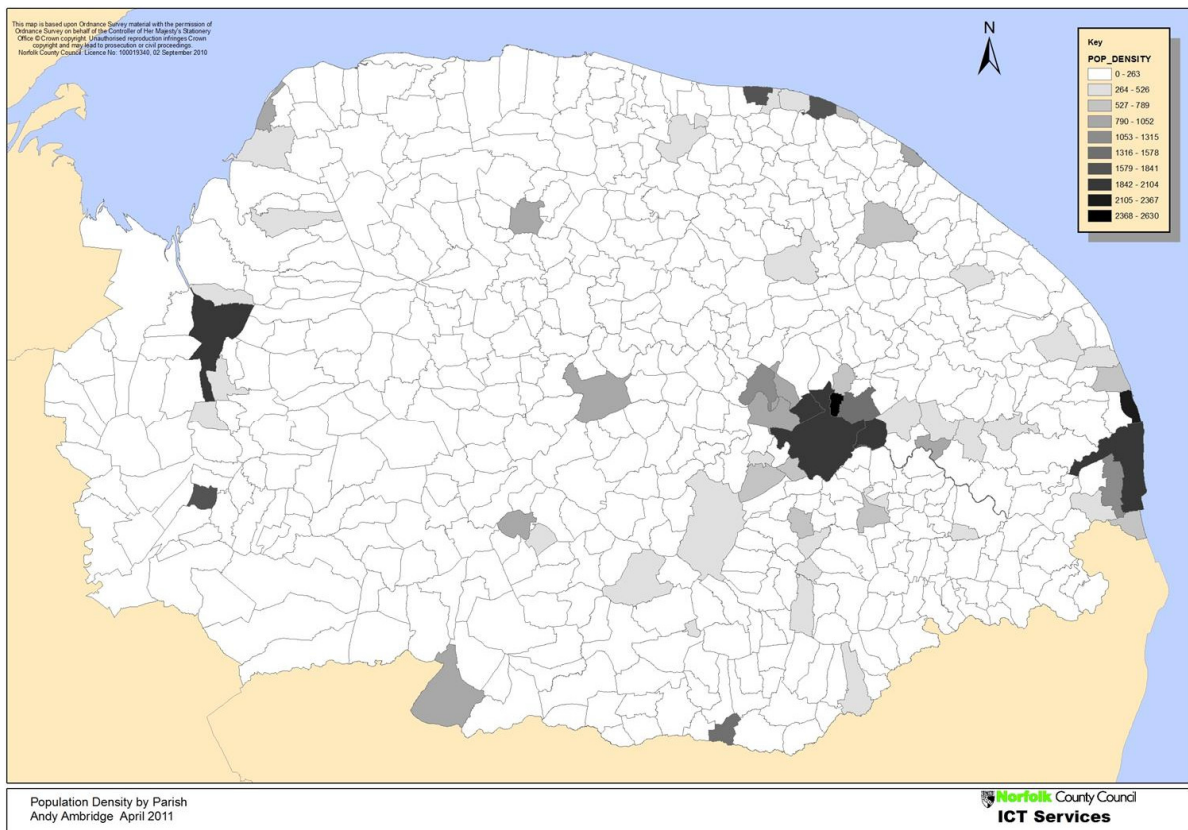
notification to the European Commission “National Broadband Scheme for the UK: Supporting the local and community roll-out of superfast broadband”.

THE PROJECT AREA

2.1 Settlement Pattern and Population Density

Norfolk is a very large rural county with a land area of 549,751 hectares. Forty-one percent of the 850,800 population reside in just four large urban areas, the city of Norwich and the three large towns of Great Yarmouth, King's Lynn and Thetford.

Rural Norfolk is relatively sparsely populated and that population is also dispersed across the whole county (i.e. there are no natural features, mountains, major lakes, or moorland that tend to concentrate people into confined settlements). The county's population density in 2008 was 1.58 persons per hectare, which is the sixth lowest of the 27 shire counties - though with 537,066 hectares Norfolk is the fifth largest in land area. The map below shows Norfolk based on population density.



Regional assets

Norfolk does not benefit from any motorway infrastructure. London is reached via the A11, which is not yet fully dualled, although following recent Government announcements work is expected to be complete by 2015. The midlands are reached via the A11 and A14 which suffer significant congestion because of the poor state of other cross country routes.

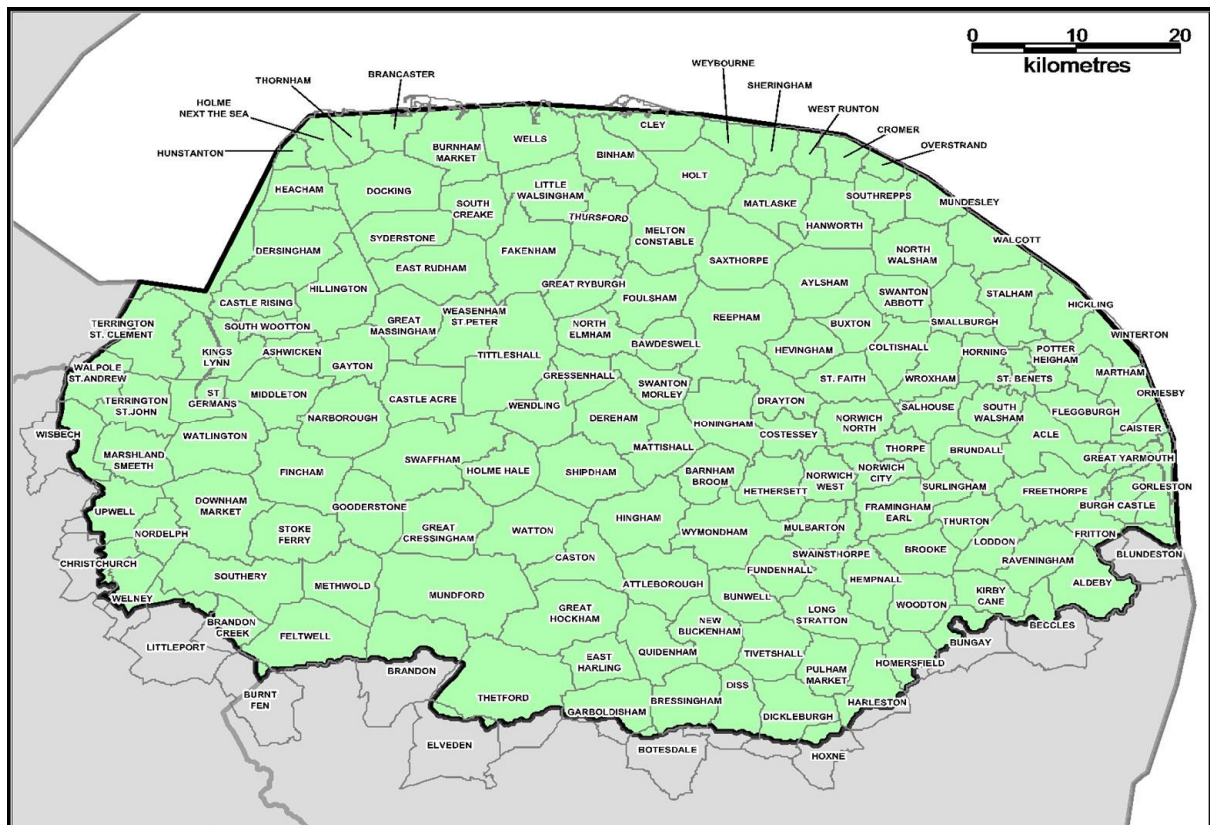
Rail links exist between Norwich and London, which is nearly a two hour journey for a distance of 100 miles. This is much slower than journey times between London and other cities that are a similar distance from London e.g. Peterborough which is only 68 minutes by rail from London. There is also a service between London and King's Lynn. Cross country rail routes are very slow.

Norwich International Airport serves approximately 600,000 passengers a year, including destinations within the UK and mainland Europe. It has capacity to grow, but is constrained by poor road access.

EXISTING PROVISION

3.1 Private Hard Infrastructure

A number of existing broadband services are based on the telecoms network operated by BT. Norfolk is served by 152 BT exchanges which are shown below.



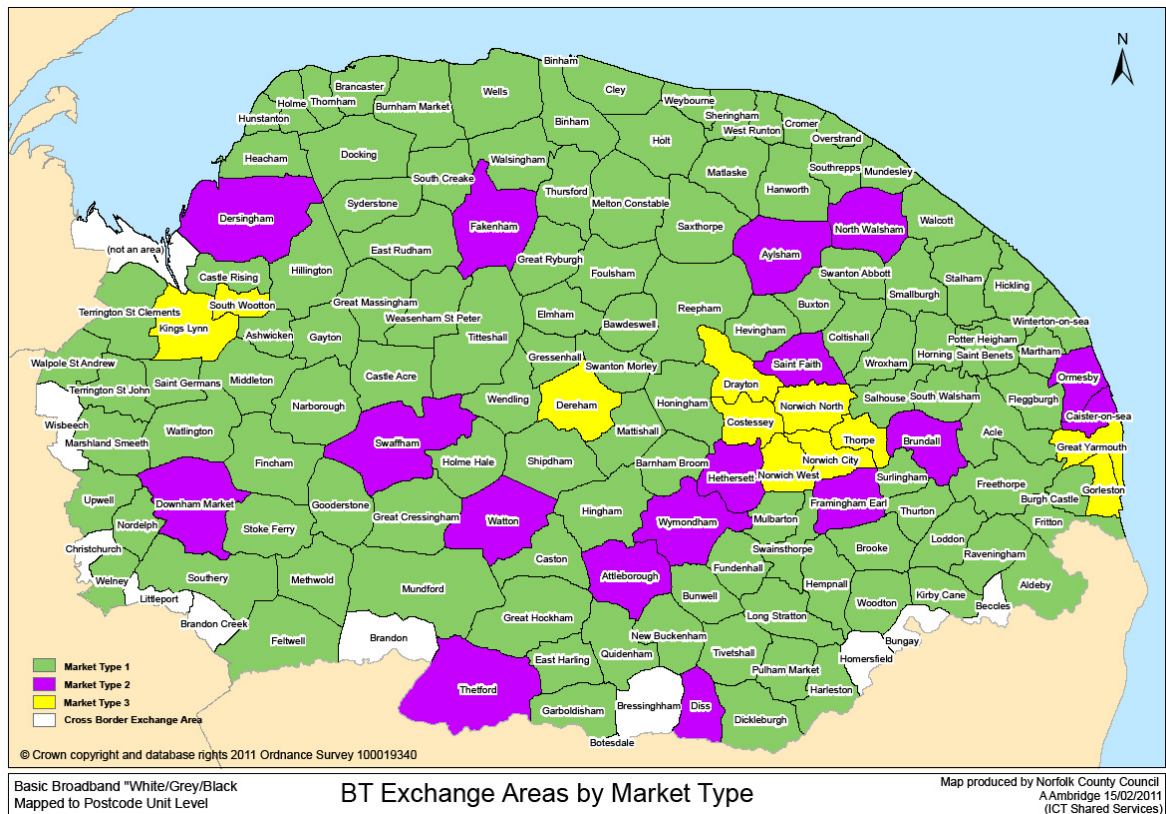
142 of these exchanges are in Norfolk, with the remainder in neighbouring counties although these only account for 1.8% of Norfolk's premises.

Ofcom classifies exchange areas by 'Market Type', based on the following definitions:

- Market 3 where there are four or more operators present, with broadband speeds up to 24Mb/s.
- Market 2 where there are two or three operators present, also with faster broadband speeds.

- Market 1 where BT is the only operator present, with no faster broadband available.

The map below depicts categories of BT exchanges in Norfolk based on the type of broadband supported. It can be seen that 'Market 1' exchanges cover most of Norfolk.



Areas served by Market Type 1 exchanges are likely to have broadband download speeds of up to 8Mb/s only. In fact, BDUK data identifies over 50,000 properties with speeds of less than 2Mb/s.

Within eight exchange areas in the Norwich and Great Yarmouth areas, Virgin Media offers NGA broadband services using cable infrastructure. However, not all locations within these urban exchange areas are served by Virgin Media.

3.2 Local Loop Unbundling

There are 28 BT exchanges which are unbundled, they are Attleborough, Aylsham, Brundall, Caister-on-Sea, Costessey, Dereham, Dersingham, Diss, Downham Market, Drayton, Fakenham, Framingham Earl, Gorleston, Great Yarmouth, Hethersett, Kings Lynn, North Walsham, Norwich City, Norwich North, Norwich West, Ormesby, Saint Faiths, South Wootton, Swaffham, Thetford, Thorpe, Watton and Wymondham. Please note this refers to exchange names, not place names. The geographical areas covered by these exchanges can be seen on the above maps.

3.3 Wireless Provision

Norfolk has existing services from mobile telephone providers, with 3G (third generation) services providing broadband services in some areas. The operators providing these infrastructures are Vodafone, Orange, 3, TMobile, and O2.

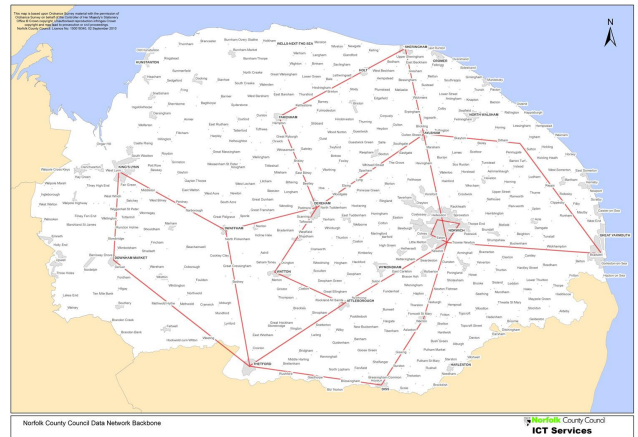
There are also a number of local wireless schemes operating or shortly intending to operate, including:

- 'WiSpire', a joint venture between Freeclix and the Norwich Diocese, which will offer services from Ringland Hills, Blofield Heath and Beeston, Kings Lynn.
- 'Thinking WISP', which covers an area around Marsham, formed by a partnership between Norfolk Rural Community Council, AF Affinity and InTouch.
- 'CountyWifi.net', a mesh service covering Winterton Valley Estate, moorings at Hickling on the Norfolk Broads and some holiday parks in the Hemsby area.
- A service offered by Paul Williamson, covering the villages of Cawston and Eastgate to provide wireless access to its subscribers.
- The BT Openzone service which provides users of wireless devices with access to wireless broadband. These services are available at 'BT hot spots' such as cafés, hotels, airports and stations.

- Norfolk County Council is facilitating pilot projects in three Norfolk broadband “not-spot” areas (Lyng, West Dereham and Hilgay) to provide an internet service to residents in those communities. The pilot internet service will be provided using their (respective) local schools’ existing computer network communication infrastructure.

3.4 Public Sector Networks

Public sector assets - Norfolk County Council’s network is the most widespread high-speed fibre based network in the county, with a 1GB (gigabyte) backbone (red lines on this map) which provides connections to over 650 sites including schools. 333 of these sites are directly connected via fibre with typical links of 10Mb/s or 100Mb/s.



This network’s capacity has already begun to benefit other public sector organisations; services for Great Yarmouth Borough Council are currently being implemented and the County Council has also granted a licence to the Norfolk & Waveney Mental Health Trust to use the core backbone of this network. The use of this network demonstrates the economic benefits that may be achieved from an improved broadband infrastructure.

LIKELIHOOD OF MARKET INVESTMENT IN THE FUTURE

4.1 Current situation

As part of the process of identifying and classifying areas, Norfolk County Council has undertaken market research to confirm (at an NGA and a basic broadband level) the current level of broadband coverage in Norfolk. This market research demonstrates, amongst other things, there is a significant urban/rural divide in terms of access to broadband services. The table below shows average speeds in Norfolk, for location type, based on BDUK speed data:

Location Type	Average Speed obtainable
Village, Hamlet and Isolated Dwellings	4.2Mb/s
Urban > 10K population	6.032Mb/s
Town and Fringe	8.134Mb/s

A demand stimulation exercise was launched on 11 January 2012 and is due to close at the end of March. As at Tuesday 28 February, a total of 9,330 Norfolk households and businesses had already registered their interest in receiving better broadband services. The Better Broadband for Norfolk website, giving the latest information on the project can be found at:

www.sayyestobroadband.co.uk/

Norfolk County Council has also carried out early consultation with existing infrastructure suppliers and this is described in more detail in section 4.3 below.

The European Commission has developed definitions to describe the level of, respectively, basic and NGA broadband coverage. These are further

developed in the BDUK State Aid Notification. The relevant definitions are given in the glossary at the end of this document. These definitions are reflected on the maps annexed to this document, which show Norfolk County Council's current understanding of basic and NGA broadband services in Norfolk:

- Map A shows basic broadband services currently available in Norfolk.
- Map B shows basic broadband services currently available within a 10km distance from Norfolk.
- Map C shows NGA broadband services currently available in Norfolk.
- Map D shows NGA broadband services currently available within a 10km distance from Norfolk.

These maps are based on BDUK baseline mapping data (based in turn from information provided by BT and Virgin Media) combined with information received from Virgin Media in response to the consultation in December 2011 referred to in Section 4.3. For any anomalies between the two data sets, the mapping has been completed on the basis of data that is verified by both sets, to be further verified by this consultation.

In terms of investment for the provision of NGA services, the areas that will be targeted are those designated as 'White NGA' areas. These areas are further classified by reference to their designation as one of Basic White, Basic Grey or Basic Black areas.

Where the area is designated Basic Grey or Basic Black, these areas will be targeted for investment for the provision of NGA services, along with those areas designated as Basic White. The market research and demand stimulation data obtained by Norfolk County Council demonstrate, in particular at a local level, that existing broadband services are often not sufficient to meet the needs of citizens and business users in these areas. More

generally, the recognised need for NGA level services at both EU and national government level demonstrates the insufficiency of existing services.

In terms of investment for the provision of basic broadband services, the areas that will be targeted are those designated as NGA White and Basic White on the attached maps. Areas designated on the attached maps as Basic Black and Basic Grey will not be targeted for investment for basic broadband.

Where services are advertised as being available using 3G mobile technologies, these have been discounted from classification on the mapping as basic broadband services for the following reasons:

(a) whilst the technology is capable of delivering download speeds in excess of 2Mb/s and therefore would, on this basis alone, be classified as basic broadband, the speeds that can be achieved diminish the further the distance from the transmitter. As such, whilst there is published information as to where a 3G signal can be obtained, there is little evidence publicly available as to in what locations a consistent 2Mb/s download speed can be reliably achieved; and

(b) in order to achieve a download capacity comparable to a basic landline package¹, the cost of the monthly rental would exceed the measure of affordability Norfolk County Council has adopted for these purposes².

Additionally, there is some evidence that these 3G mobile services do not fully meet the needs of consumers for broadband services. A recent report by the Department for Business Innovation & Skills showed that '10% of users (close to a base station) can achieve 75% of the peak data speeds (or better) but

¹ Plus Net value £6.49 per month, 10GB download limit
<http://www.plus.net/broadband/?source=subBox>

² For these purposes Norfolk County Council has adopted a measure of affordability as installation costs of less than £100 and rental costs of less than £25 per month. This is based on the measure adopted in the BDUK State Aid notification

50% of users (on the outer rim of radio cells) can only achieve 25% of the peak data speed (or less)³.

The coverage of Norfolk in terms of basic broadband is ever-changing and this is particularly the case concerning the numerous wireless schemes serving the county. For most wireless services operating in Norfolk, there is insufficient information to accurately map what areas of coverage there are or will be offered by these services, or insufficient information at this stage to substantiate that a sustainable or affordable service will be available. For these reasons, the different wireless services are not shown on Maps A or B annexed to this document as basic broadband.

For all such wireless services, predictions about areas of coverage can sometimes be inaccurate and difficult to verify, particularly regarding services that are planned and not yet established. For example, wireless systems normally require line of sight from the height of the mast and so there may be gaps in service and certain properties may not achieve a good coverage.

In each area where there is a current or potential wireless service, the aim of the project is to deliver NGA services where possible. However, based on the information presently available, there will be grounds in each case to justify that these services do not yet meet the needs of consumers for basic broadband services. Accordingly, it is considered at this stage there will be sufficient justification for public investment in basic broadband in these areas.

However, the value of these and wireless services generally, along with other technologies, are recognised and it is not the intention to duplicate existing services. Accordingly, the following information, if received prior to the expiry of this consultation, would sufficiently evidence the needs of consumers were being met for basic broadband via these services. Consequently the areas of

³ Department for Business Innovative and Skill's report 'Digital Britain' Final Report June 2009

coverage could be mapped as basic broadband and the area would not be targeted for investment for basic broadband services in this project:

- (a) accurate coverage mapping with evidence to reasonably verify the areas of coverage, taking into account issues of signal penetration and local topographical constraints;
- (b) evidence that the prices, particularly for business users, are affordable⁴; and
- (c) sufficient evidence of a business plan and detailed calendar deployment plan (where not operational) to give sufficient assurance of the sustainability of the proposals.

Notwithstanding this, it should be noted that where such evidence does result in an area being mapped as having basic broadband (which would make an area classified as Basic White become Basic Grey) the project may still invest in basic broadband in these areas in certain circumstances. This will be where it is a necessary consequence of deployment of some technologies to achieve NGA coverage, that there is an enhanced basic service in other areas. For example, where FTTC (Fibre to the Cabinet) is deployed, this may deliver NGA services to all premises within a certain distance of the cabinet, but those premises beyond that distance served by the cabinet will receive an enhanced basic service.

The whole of the area of Norfolk is also served by satellite services offering a basic broadband service. Whilst the presence of these services is acknowledged, these services have not been included on the coverage maps as the installation costs and in some cases the rental charges potentially make these unaffordable for consumers⁵. A survey of the costs was undertaken in January 2012. Of the providers whose costs were surveyed, no

⁴ See footnote 2 above

⁵ see footnote 2 above

provider offered a service that was affordable, based on the measure of affordability adopted by Norfolk County Council for these purposes.

4.2 Forward Projections

Norfolk County Council is aware of the announcements published by BT Plc of its intention to upgrade services to certain exchange areas in Norfolk. Whilst welcoming this investment, Norfolk County Council is not able to take any potential upgrade of services that may result from these announcements into account without information as to what services will be deployed as a result, in particular the identity of the cabinets, or premises, that will be connected by fibre optic cable. The areas potentially so affected are indicated on Map E. If this information is received by the close of the public consultation, this may result in these areas being re-classified in part or in whole and, based on any such change in classification, may reduce the areas targeted for investment.

It is understood that Virgin Media does not currently have any plans for large-scale network expansion in Norfolk, although it is anticipated there will be some small scale increases in coverage, the extent of which cannot be accurately forecast at this stage.

Other than this, Norfolk County Council is not aware of any substantive plans for investment in basic or NGA broadband within Norfolk or within a 10km distance of the border of Norfolk within the three year period up to 31 May 2015.

4.3 Early Market Engagement

Norfolk County Council has consulted in December 2011 with the following existing broadband providers: BT; Virgin Media; WiSpire; Thinking WISP; Alcatel Lucent; Arqiva; Avanti; Astra; Everything Everywhere (Orange/T-Mobile); Vodafone; Virgin Media; 3; and 02.

Responses to this consultation were received from Virgin Media, Everything Everywhere (Orange/T-Mobile), Astra GB Ltd, Arqiva, Alcatel-Lucent Telecom Ltd and Avanti Plc.

The responses to this consultation gave some verification of coverage areas and understanding of the plans in the future for new satellite infrastructures that will improve the download and upload speed for households in Norfolk.

CONCLUSION

5.1 Description of proposed aid measure

The specifications for this project are described in Section 1.4 above. Norfolk County Council proposes to invest an initial sum of £30.44 million with the private sector provider selected by the procurement process described in this document, to achieve the objectives set out in Section 1.3, together with:

(a) Other grant funding including ERDF (European Regional Development Fund) and/or DEFRA (Department for Environment, Food and Rural Affairs) Rural Community Broadband Fund (RCBF). Specifically, the following funding, if received, is included within this project:

- ERDF funding of approx £300,000 to provide support to local businesses to assist them in exploiting broadband. This bid may also seek a further £1.5 million to implement superfast broadband in the hardest to reach areas to specifically support businesses
- DEFRA RCBF funding based on a bid which is being co-ordinated via Norfolk's Rural Community Council to provide both support for businesses to exploit broadband and the provision of superfast broadband in some of the 10% hardest to reach locations. This project is expected to be for £997,500

(b) Funding from communities (groups, individuals or businesses) seeking an 'uplift' from the solution offered as part of the Better Broadband for Norfolk Project; and

(c) Contributions from other public sector organisations.

5.2 Proposed target areas

The areas that it is proposed to target for investment under this scheme are shown as

- The white areas on Map A for Basic broadband within Norfolk, that is the areas shown on that map as Basic White.
- The white areas on Map C for NGA broadband within Norfolk, that is the areas shown on that map as NGA White.

As mentioned above, additionally it may be a necessary consequence of deployment of some technologies to achieve NGA coverage, that a basic service is delivered or enhanced in other areas, where there is an existing basic broadband service. For example, where FTTC is deployed, this may deliver NGA services to all premises within a certain distance of the cabinet, but those premises beyond that distance will receive an enhanced basic service.

With reference to section 1.4, the project will ask bidders for potential options for properties identified within the 10km boundary shown at Maps B and D, where they are proven to be economically advantageous and agreed with the neighbouring county. Any areas outside Norfolk will be considered eligible for investment for broadband on the same principles as areas within Norfolk, that is:

- For basic broadband, the areas shown in white on Map B, that is areas that are designated on that map as Basic White.
- For NGA broadband, the areas shown in white on Map D, that is areas that are designated on that map as NGA White.

FEEDBACK PROCESS

6.1 Consultation

Existing or potential broadband infrastructure providers/operators

The final target area for intervention will be based on the market analysis and feedback from this consultation. It is therefore imperative that any operator already delivering or planning to deliver services that exceed what has been detailed in this document make their offer/plans known. It is not our intention to duplicate the provision of NGA or basic broadband services by providers, nor is it our intention to provide subsidy where it is not needed. Please inform us where any of the information given in this consultation document or the attached maps is incorrect. If you wish to inform us of proposals for investment, we need to be assured that your proposed investment is credible and sustainable, and that it is planned to roll out the infrastructure within 3 years of the 31 May 2012. To this end, in accordance with EU State Aid guidance, we would require evidence in the form of a business plan and detailed calendar deployment plan before any changes to the scope of the project are considered.

Internet providers

In a similar way the council seeks feedback from other stakeholders and business involved in the provision of broadband services.

Other businesses and residents

The Council is also seeking feedback from residents and businesses about the accuracy of its coverage map below and, in particular, areas that are designated as NGA broadband (NGA grey and black areas, if any) and also the accuracy of where there is currently basic broadband performance.

6.2 Contact

Responses should be sent to the Better Broadband for Norfolk Project at the following email address: BetterBroadbandforNorfolkProject@norfolk.gov.uk

This document can be downloaded from www.norfolk.gov.uk/broadband

Please note that Norfolk County Council is subject to laws concerning access to information including the Freedom of Information Act 2000, the

Environmental Information Regulations 2004 and the Audit Commission Act 1998 and may - notwithstanding any claim made by any person that any information is provided in confidence or is confidential in nature – release any information provided to it in accordance with the law, subject to the council’s discretion concerning any applicable exemption or the application of any public interest test.

7. Glossary of Terms

Term	Definition
Basic broadband	<p>Broadband which delivers download speeds of at least 2Mb/s.</p> <p>Examples of basic broadband could include: ADSL (Asynchronous Digital Subscriber Line), ADSL 2+, wireless, mobile and satellite.</p> <p>Basic broadband does not include narrowband (dial-up) Internet.</p>
Basic White area	<p>An area where:</p> <ul style="list-style-type: none"> - basic broadband services at a minimum download speed of 2Mb/s are not available at affordable prices and there are no private sector plans to deliver such services in the next three years; or - there is no basic broadband infrastructure, nor any investment plans by a private sector network operator to deliver such infrastructure within the next three years.
Basic Grey area	<p>An area where one basic broadband network already exists delivering affordable basic broadband services at a minimum download speed of 2Mb/s and there are no private sector plans to roll out similar infrastructure in the coming three years.</p>
Basic Black area	<p>An area where two or more basic broadband networks already exist delivering affordable basic broadband services at a minimum download speed of 2Mb/s.</p>
BDUK	Broadband Delivery UK
BDUK State Aid	The BDUK State Aid notification to the European

Notification	Commission "National Broadband Scheme for the UK: Supporting the local and community roll-out of superfast broadband".
BT	British Telecommunications plc
DCMS	Department of Culture, Media and Sport
DEFRA	Department for Environment, Food and Rural Affairs
Demand Stimulation	Stimulation of customer broadband demand and take up
ERDF	European Regional Development Fund
EU	European Union
FTTC	Fibre To The Cabinet
GVA	Gross Value Added
LA	Local Authority
LLU	Local Loop Unbundling
Mbps or Mb/s	Megabits per second
Next Generation Access ("NGA") broadband networks	<p>Wired access networks that consist wholly or in part of optical elements and that are capable of delivering broadband access services with enhanced characteristics (such as higher throughput) as compared to those provided over existing copper networks.</p> <p>In this context NGA broadband must be capable of delivering download speeds of 30Mb/s or more or in any event more than 24Mb/s.</p> <p>Examples of NGA broadband networks include: fibre to the cabinet ("FTTC"), fibre to the premises ("FTTP") and Hybrid Fibre Coax.</p> <p>At present NGA broadband networks do not include networks based on satellite or mobile technologies. The position in relation to mobile technologies will be kept under review as 4G/LTE (4th Generation / Long Term Evolution) mobile technology may be capable of delivering the NGA broadband download speeds described above.</p>

NGA White area	An area where: - NGA broadband services at an access (download) speed of over 24Mb/s are not available at affordable prices and there are no private sector plans to deliver such services in the next three years; or - there is no NGA broadband infrastructure, nor any investment plans by a private sector network operator to deliver such infrastructure within the next three years.
NGA Grey area	An area where one NGA broadband network already exists delivering affordable NGA broadband services at an access (download) speed of over 24Mb/s and there are no private sector plans to roll out similar infrastructure in the coming three years.
NGA Black area	An area where two or more NGA broadband networks already exist delivering affordable NGA broadband services at an access (download) speed of over 24Mb/s.
Ofcom	Office of Communications, the national regulatory authority for the telecommunication industries in the United Kingdom
OJEU	Official Journal of the European Union
Project	The Better Broadband for Norfolk Project
RCBF	Rural Community Broadband Fund
Retail Service Provider	Providing various retail Internet services to both businesses and consumers
SME	Small and medium sized enterprise

8. List of Maps

Map A - Current basic broadband infrastructure serving Norfolk

Map B - Current basic broadband infrastructure serving areas within a 10km distance of the border of Norfolk.

Map C - Current NGA broadband infrastructure serving Norfolk.

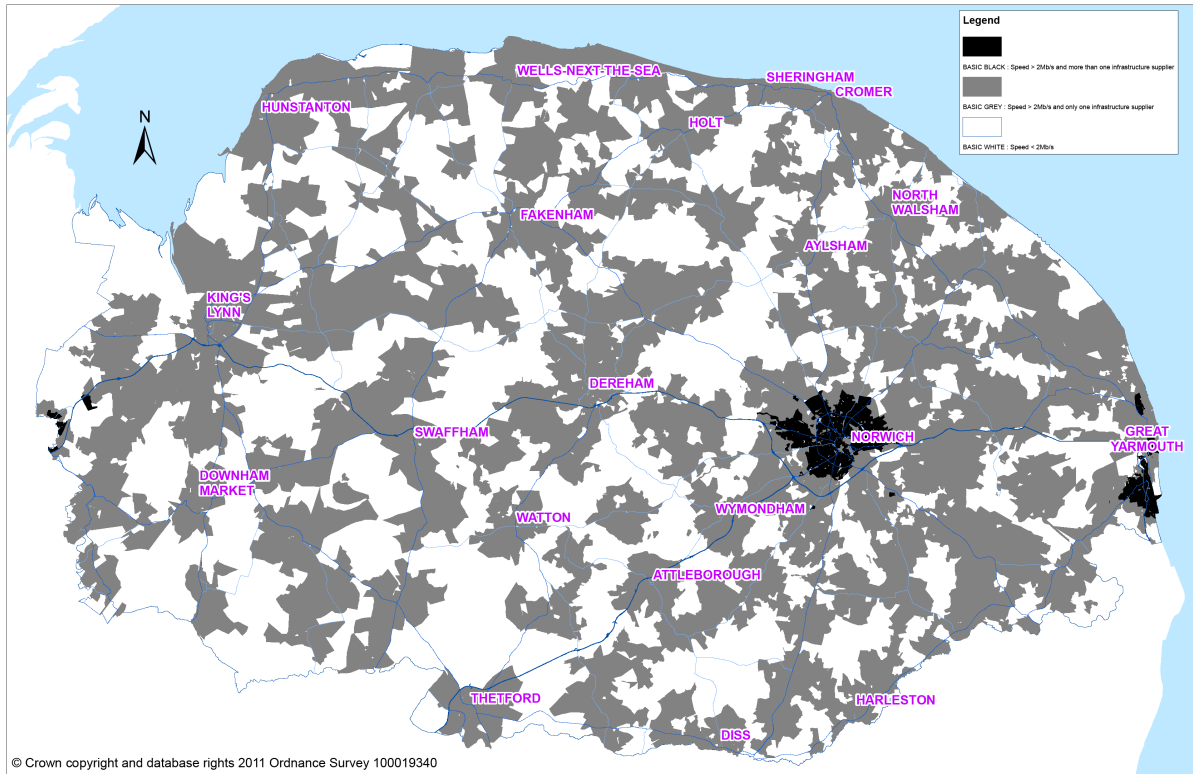
Map D - Current NGA broadband infrastructure within a 10km distance of the border of Norfolk.

Map E – BT exchange areas affected by BT announcements referred to in Section 4.2

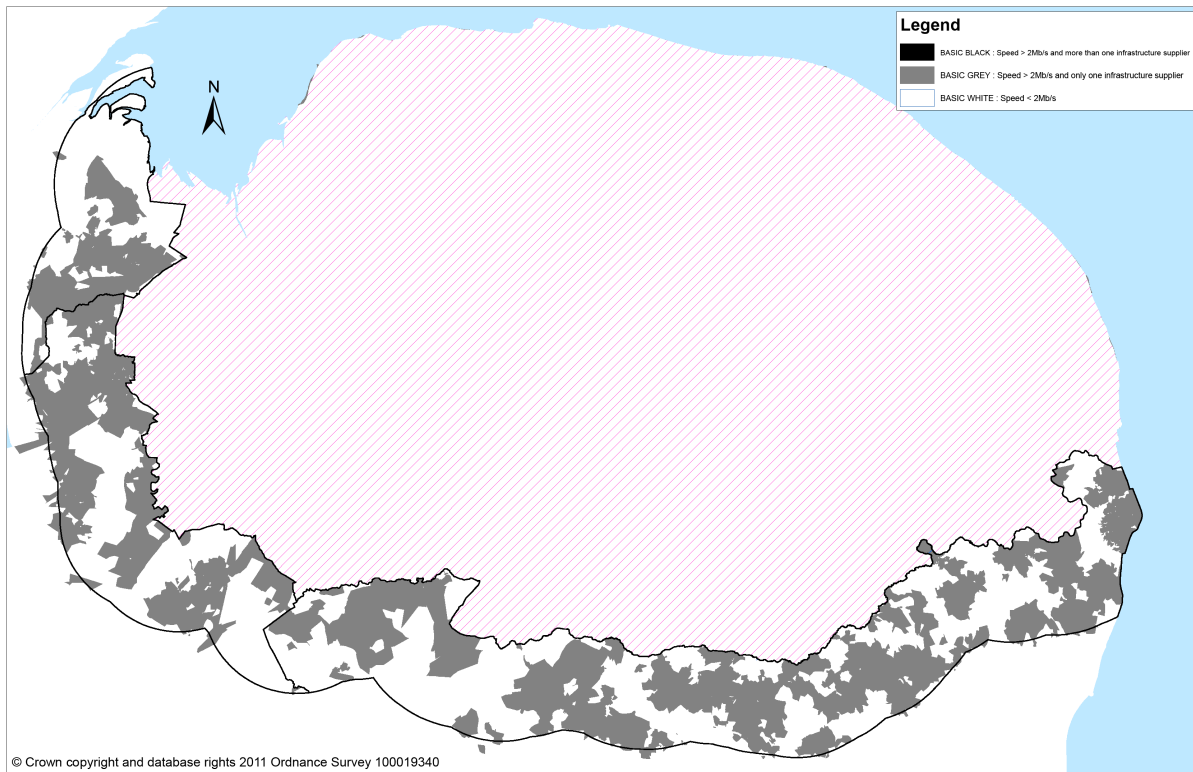


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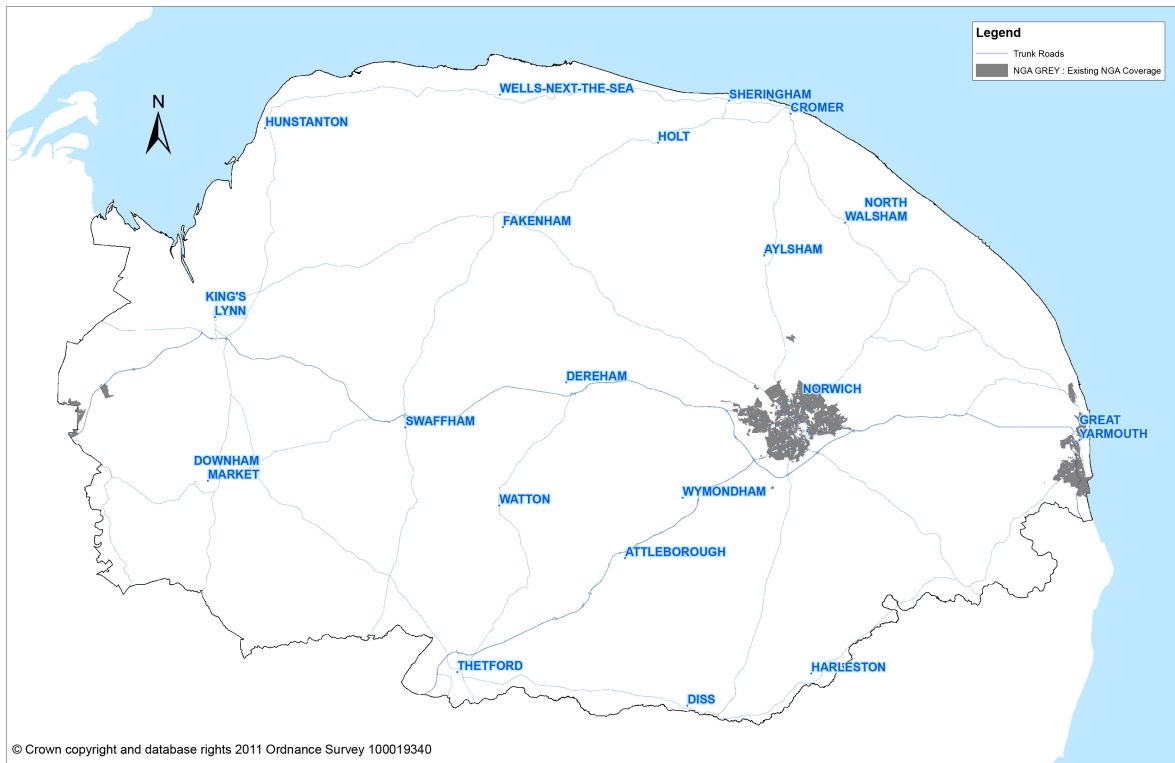
APPENDICES



Basic Broadband "White/Grey/Black Mapped to Postcode Unit Level" **MAP A - Basic Broadband Infrastructure Serving Norfolk** Map produced by Norfolk County Council A Ambridge & GIS Team 14/02/2011 (ICT Shared Services)



Basic Broadband "White/Grey/Black Mapped to Postcode Unit Level" **MAP B - Basic Broadband Infrastructure +10k around Norfolk** Map produced by Norfolk County Council A Ambridge & GIS Team 14/02/2011 (ICT Shared Services)

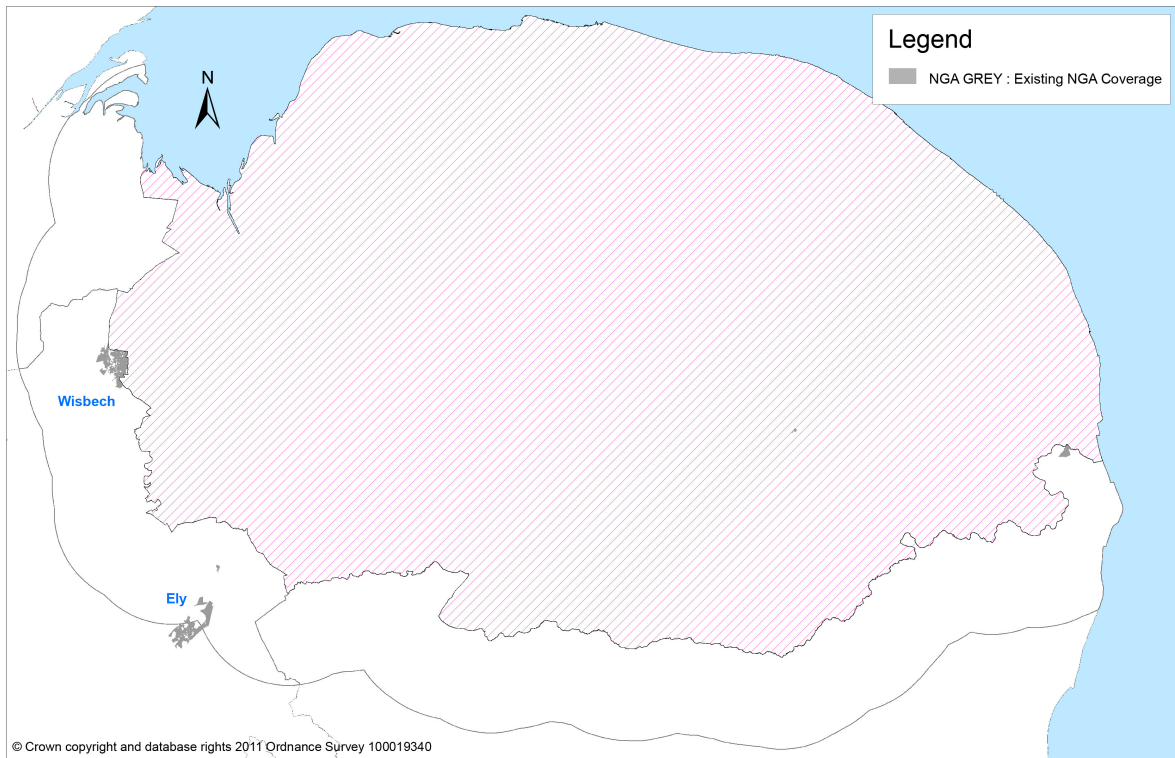


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NGA Broadband "White/Grey/Black Mapped to Postcode Unit Level

MAP C - Next Generation Broadband Infrastructure Serving Norfolk

Map produced by Norfolk County Council
Andy Ambridge & GIS Team 15/02/2012
(ICT Shared Services)

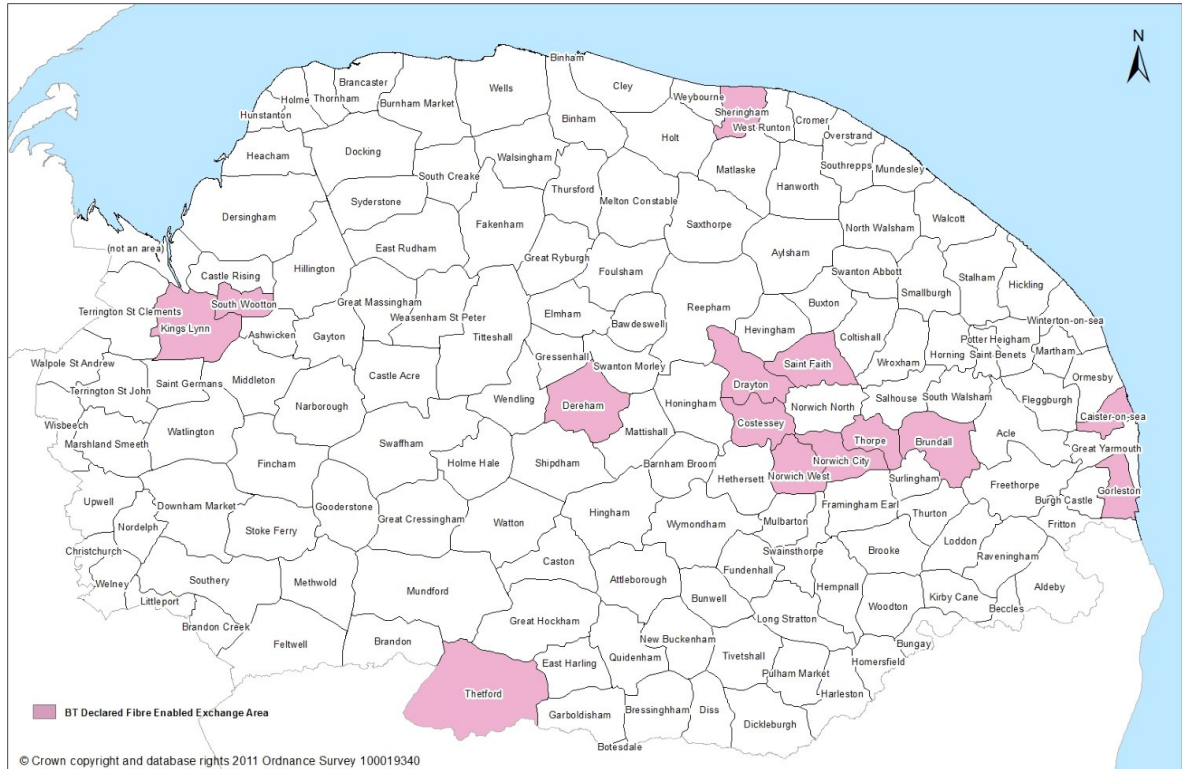


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NGA Broadband "White/Grey/Black Mapped to Postcode Unit Level

MAP D - Next Generation Broadband Infrastructure Around Norfolk +10Km

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MAP E - BT Declared Fibre Enabled Exchange Areas in Norfolk

Map produced by Norfolk County Council
 AAmbridge & GIS Team 15/02/2011
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