

Title of Report:	Proposal for Additional Investment in West Berkshire's Broadband
Report to be considered by:	Executive
Date of Meeting:	19 th June 2014
Forward Plan Ref:	EX2840

Purpose of Report:	To outline West Berkshire's expected broadband coverage position by the end of 2015 and explain how this can be improved by drawing down further government (BDUK) funding known as the Superfast Extension Programme (SEP).
Recommended Action:	To increase the provision for broadband improvement in the WBC Capital Programme from its current level of £400k to take maximum advantage of available Government grant funding under its Superfast Extension Programme (SEP) scheme.
Reason for decision to be taken:	Broadband Delivery UK (BDUK) requires a financial commitment to SEP from the Berkshire Councils by 30 th June 2014.
Other options considered:	To maintain WBC's broadband capital provision at its current level of £400k.
Key background documentation:	Berkshire Local Broadband Plan.

<p>The proposals contained in this report will help to achieve the following Council Strategy priorities:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> CSP2 – Promoting a vibrant district <input checked="" type="checkbox"/> CSP3 – Improving education <p>The proposals will also help achieve the following Council Strategy principle:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> CSP7 - Empowering people and communities <p>The proposals contained in this report will help to achieve the above Council Strategy priorities and principle by helping to provide 21st century broadband services to communities across Berkshire.</p>
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Portfolio Member Details	
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Date Portfolio Member agreed report:	28/05/2014

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Implications

Policy:

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Financial:

The Government has announced an additional £3.56m of public funding for investment in superfast broadband in Berkshire designed as part of its £250m programme to achieve superfast broadband coverage for the country of at least 95% by 2017.

This grant, administered by Broadband Delivery UK (BDUK), is required to be match funded by Berkshire local authorities.

The Superfast Berkshire project team has completed an Expression of Interest (EOI) form to BDUK informing them that it intends to draw down the entire £3.56m grant. Berkshire needs to inform BDUK by 30/06/2014 the actual amount it requires and this then commits the respective Councils to the amounts they have 'pledged'.

Any additional provision within the Council's capital programme for superfast broadband will compete for funds with other proposed schemes.

Personnel:

The Superfast Berkshire Project team is very lean and we may need to increase the amount of project resource to process the SEP procurement if started before the current project has completed.

The current Superfast Project is scheduled to end in December 2015 and has project resources until then. If the SEP phase goes ahead the project will need to be resourced for a further 2 years.

Legal/Procurement:

BDUK has given Council's greater flexibility about how it procures broadband solutions under SEP.

We plan to open the procurement to a wider range of suppliers than were available in BDUK's framework, used for the first phase of the project. We anticipate that this will improve competition/value for money and allow a greater mix of technologies to be deployed, not just BT's Fibre to the Cabinet (FTTC) solution

Property:

The small project team will be based in West Berkshire Council's Market Street Offices. The project team is not anticipated to be more than 5 staff at any one time, including supplier project staff.

Risk Management:

Risks will be managed using a combination of the Council's Risk Management Methodology, BDUK's framework best practice and supplier's contractual agreement.

Is this item relevant to equality?	Please tick relevant boxes	Yes	No
Does the policy affect service users, employees or the wider community and:			
• Is it likely to affect people with particular protected characteristics differently?		<input checked="" type="checkbox"/>	
• Is it a major policy, significantly affecting how functions are delivered?		<input checked="" type="checkbox"/>	
• Will the policy have a significant impact on how other organisations operate in terms of equality?		<input checked="" type="checkbox"/>	
• Does the policy relate to functions that engagement has identified as being important to people with particular protected characteristics?		<input checked="" type="checkbox"/>	
• Does the policy relate to an area with known inequalities?		<input checked="" type="checkbox"/>	
Outcome (Where one or more 'Yes' boxes are ticked, the item is relevant to equality)			
Relevant to equality - Complete an EIA available at www.westberks.gov.uk/eia			<input type="checkbox"/>
Not relevant to equality			<input checked="" type="checkbox"/>

Is this item subject to call-in?	Yes: <input checked="" type="checkbox"/>	No: <input type="checkbox"/>
If not subject to call-in please put a cross in the appropriate box:		
The item is due to be referred to Council for final approval	<input type="checkbox"/>	
Delays in implementation could have serious financial implications for the Council	<input type="checkbox"/>	
Delays in implementation could compromise the Council's position	<input type="checkbox"/>	
Considered or reviewed by Overview and Scrutiny Management Commission or associated Task Groups within preceding six months	<input type="checkbox"/>	
Item is Urgent Key Decision	<input type="checkbox"/>	
Report is to note only	<input type="checkbox"/>	

Executive Summary

1. Overview

- 1.1 West Berkshire has been the lead for the pan-Berkshire *Superfast Berkshire* project since May 2011 to improve broadband speed and coverage across the county.
- 1.2 Main technologies available to extend West Berkshire's superfast broadband include fibre to the cabinet (FTTC), fibre to the premise (FTTP), fixed wireless and mobile 4G. In the Government's original broadband programme, only fibre solutions (FTTC or FTTP) were eligible for state aid funding. The rules have now changed allowing all technologies to attract state aid. However other than its relatively high cost fibre Officers advise that fibre technology provides the longest term viability for investment in broadband infrastructure.
- 1.3 Accordingly the broadband strategy for West Berkshire is;
- to extend broadband fibre as far as economically possible
 - to ensure value for money for the public money invested in broadband, by;
 - procuring competitively to maximise private investment
 - setting a Local Authority subsidy ceiling of £250 per premise (Averaged over each project phase)
 - setting an absolute ceiling on the cost (all funding sources) of upgrading an individual premise of £1500
 - to employ alternative broadband technologies to further extend superfast broadband
- 1.4 The existing Superfast Berkshire and RCBF projects, when completed in 2015, will see West Berkshire's superfast broadband coverage increase to 83.0% of premises. This represents an uplift of 17.8% from the 65.2% superfast broadband coverage at the end of BT's commercial programme.
- 1.5 In February 2014 the Government announced details of its Superfast Extension Programme (SEP) which provides an extra £250m to achieve 95% superfast broadband coverage across the UK by 2017. Berkshire has been allocated £3.56m of this funding, on a matched funding basis.
- 1.6 West Berkshire Council previously committed to drawing down £700k of SEP funding via a £400k provision in the Council's Capital Programme and a £300k contribution from the LEP. This provision was originally expected to allow West Berkshire to achieve 91% superfast broadband coverage using FTTC technology and 'catch up' with the coverage available in other Berkshire districts. This expectation was based on a budgetary estimate provided by BT in November 2013 (Included at Appendix A).

1.7 A subsequent estimate provided by BT in March 2014 indicated that FTTC cannot economically extend superfast broadband beyond 91.5% coverage and the cost to WBC of achieving 91% superfast broadband had risen to £1.2m in this revised estimate (Included at Appendix B). Using this new quotation we have estimated that the WBC's current SEP matched funding £700k provision (£400k WBC, £300k LEP) would achieve superfast broadband coverage of 88.0%.

2. Recommendations

2.1 It is recommended that the current £400k provision for broadband improvement in the WBC Capital Programme be increased.

2.2 The options and costs for extending West Berkshire superfast broadband coverage are;

- **SEP Option 1 - Superfast 90% (Fibre only):** Investing an additional £280k of WBC capital funds in FTTC to increase West Berkshire's superfast broadband coverage to 90%.
- **SEP Option 2 - Superfast 91.5% (Fibre only):** Investing an additional £540k of WBC capital funds in FTTC to increase West Berkshire's superfast broadband coverage to 91.5%.
- **SEP Option 3 – Superfast 95.1% (Fibre 90% + Wireless):** Investing an additional £856k of WBC capital funds extending superfast by FTTC to 90% then to 95.1% via wireless technology.
- **SEP Option 4 Recommended – Superfast 95.4% (Fibre 91.5% + Wireless):** Investing an additional £1.075m of WBC capital funds extending superfast by FTTC to 91.5% then to 95.4% via wireless technology.

Executive Report

1. Introduction and Background

- 1.1 West Berkshire has been the lead for the pan-Berkshire *Superfast Berkshire* project since May 2011 to improve broadband speed and coverage across the county.
- 1.2 The project is part of a UK Government national programme designed to ensure that by the end of 2015 all premises (100%) have access to basic broadband (2Mbit/s or above) and that 90% of these have access to superfast or Next Generation Access (NGA) broadband (24Mbit/s or above). All projects are overseen by the body set up by the government, Broadband Delivery UK (BDUK).
- 1.3 The project has been funded by a mix of public funding (Government grant plus Local Authority matched funding) and private investment from broadband suppliers through a competitive tender process.

2. Broadband Technology

- 2.1 The technology available to us for improving Berkshire's superfast broadband are limited to only a few options which are outlined below;

- (1) Fibre broadband both fibre to the cabinet (FTTC) and fibre to the premise (FTTP) were the only superfast technologies eligible for state aid funding in the Government's initial superfast broadband programme.

- **FTTC** is the primary technology employed by BT/Openreach and provides superfast broadband via a fibre spine network to new cabinets adjacent to traditional telecoms cabinets. The superfast broadband is then delivered to each premise via the copper cables used for traditional telephony. Any premise more than 1km away from the superfast cabinet on a copper cable is unlikely to be able to receive broadband at superfast speeds 24Mbit/s but may well still receive speeds significantly higher than the basic provision 2Mbit/s which is currently the only offering available in some areas.
 - **Speed** - BT currently market their FTTC offering as the "*Infinity*" product with download speeds up to 76Mbit/s.
 - **Viability** – BT can offer a variety of products over their fibre infrastructure; broadband, telephone and TV as a bundled package. This makes the product more appealing and enhances their revenue thus making the broadband infrastructure more commercially viable over the longer term. Also Openreach broadband infrastructure is available for other broadband retailers e.g. O2, TalkTalk, Sky etc. to use (unbundle) which increases competition and reduces prices.
 - **Cost** – Creating fibre infrastructure is expensive and often means communities with few premises connected to a telecoms cabinet are often overlooked when FTTC roll out is considered.

- **FTTP** is offered primarily in urban or suburban settings, with Virgin Media being the most prevalent UK supplier. BT has also recently announced a 300Mbit/s FTTP solution which it is piloting in a few areas.
 - **Speed** – Virgin Media currently market products with download speeds up to 100Mbit/s.
 - **Viability** – Virgin Media can offer a variety of products over their fibre infrastructure; broadband, telephone and TV as a bundled package. This makes the product more appealing and enhances their revenue thus making the broadband infrastructure more commercially viable over the longer term.
 - **Cost** – FTTP infrastructure is the most expensive broadband technology and probably the least likely solution to be rolled out in rural areas.

- (2) **Fixed wireless** delivers broadband ‘through the air’ from a base station to receivers on each subscribing premise. It is frequently employed to deliver broadband to otherwise poorly served rural communities.
 - **Speed** – Although wireless is capable of speeds that qualify as superfast ie above 24Mbit/s, speed tends to be lower than that available from fibre solutions. A typical wireless broadband provider would offer broadband download speeds of 4-50Mbit/s.
 - **Viability** – Wireless broadband often fills a niche in the market but is usually only able to provide a single product ie broadband. This is less attractive than competitor product and reduces subscriber numbers, which means that many wireless providers and schemes are no longer in operation within 2-5 years of starting their operation.
 - **Cost** – Wireless is the least expensive broadband infrastructure to create/ implement for the service providers and can offer a good VfM return to extend broadband into rural communities. Connection costs to individual subscribers may be higher than for fibre as they need to purchase and install a wireless receiver on their premise.

- (3) **4G mobile services** are being rolled out by the mobile telecommunication providers and may in time offer a viable solution for superfast broadband for rural. However until there is more visibility of 4G rollout plans for West Berkshire it is not a technology available for use at present.

3. Broadband Strategy

3.1 Given the relative merits of broadband technologies available to us, as described above, our broadband strategy for West Berkshire is as follows;

- **To extend broadband fibre as far as economically possible** primarily using fibre to the cabinet (FTTC) but also including some Fibre to the Premise (FTTP).
- **To employ alternative broadband technologies** eg Wireless and/or 4G to further improve superfast broadband coverage after the economic limit of fibre broadband has been reached.
- **To ensure value for money** for the public money invested in broadband, by;
 - procuring competitively to maximise private investment
 - setting a Local Authority subsidy ceiling of £250 per premise (Averaged across each project phase)
 - setting an absolute ceiling on the cost (from all funding sources) of upgrading an individual premise of £1500

4. Broadband Coverage and Costs

4.1 Berkshire's broadband programme can be considered to consist of three phases

- (1) **Superfast Berkshire Project:** Overall value £5.85m (£2.03m BDUK grant, £1.73m LA funding, £300k LEP funding and £1.79m from BT)
- (2) **The Rural Communities Broadband Fund (RCBF):** Overall value £828k (£550k from BDUK grant and £278k from BT)
- (3) **The Superfast Extension Programme (SEP):** Up to £3.56m is available for Berkshire from BDUK on a matched funding basis. This is part of a £250m national programme designed to achieve 95% superfast broadband coverage across the UK by the end of 2017.

4.2 Obtaining accurate and consistent broadband coverage cost modelling has proved extremely challenging, particularly so for West Berkshire coverage. Suppliers are reluctant to commit to firm quotes, or to provide much detail prior to a formal procurement. However our experience of the RCBF procurement was that the introduction of competition significantly improved the cost/outcome, compared to the budgetary estimates provided by suppliers in advance.

4.3 Estimates have been provided by BDUK and by BT for extending broadband using FTTC technology. We have also received verbal estimate for implementing wireless broadband solutions for providing superfast broadband to rural areas.

4.4 BDUK modelling suggests that if Berkshire took up its entire £3.56m SEP allocation superfast broadband coverage across the county, using FTTC technology, could reach 96.5% (92.3% in West Berkshire for an estimated WBC investment of £1.8m). Our modelling suggests we could achieve 95.4% superfast coverage in West Berkshire for a £1.475m WBC investment

4.5 West Berkshire Council, in collaboration with the LEP, has already made a £700k provision (£400k in the WBC Capital Programme and £300k from the LEP¹) to enable it to draw down £700k of the available SEP funding. This provision was originally made to enable West Berkshire to 'catch-up' with its neighbouring districts ie to achieve 91% superfast broadband coverage. This coverage expectation was based on an estimate from BT provided in November 2013 (Appendix A). A more recent estimate from BT provided in March 2014 (Appendix B) indicates that our £700k investment would only achieve 88.0% superfast broadband coverage.

4.6 The table below sets out West Berkshire's anticipated broadband coverage that could be achieved from differing capital investments. (The table at Appendix D provides additional detail).

Project Phase	Technology	West Berkshire Premises			Cost/Funding				
		With Superfast Broadband >24Mbit/s		Upgraded to Superfast in Phase	Phase Cost to WBC	Cumulative Cost to WBC	Cumulative New Funding	Phase Cost to BDUK	WBC Subsidy per premise
		No	%						
West Berkshire Current Provision	FTTC	60,580	88.0%	3,500	£400,000	£400,000	£0	£700,000	£114
SEP 1- Superfast 90% (Fibre only)	FTTC	61,925	90.0%	1,345	£280,000	£680,000	£280,000	£280,000	£208
SEP 2 - Superfast 91.5% (Fibre Only)	FTTC	62,966	91.5%	1,041	£260,000	£940,000	£540,000	£260,000	£250
SEP 3 - Superfast 95.1% (Fibre 90% + Wireless)	FTTC	65,435	95.1%	1,345	£280,000	£1,256,000	£856,000	£856,000	£176
	Wireless			3,510	£576,000				
SEP 4 - Superfast 95.4% (Fibre 91.5% + Wireless)	FTTC	65,666	95.4%	1,041	£260,000	£1,475,000	£1,075,000	£795,000	£213
	Wireless			2,700	£535,000				

¹ The £300k LEP funding is at some risk as it sourced from EUFRID which is deemed ineligible as matched funding for the BDUK grant. If the LEP cannot source this from elsewhere this may need to be found from the Council's capital programme.

5. Affordability within the Council's Capital Programme

5.1 The proposed increase to the SEP matched-funding provision in the Council's Capital Programme could be met from the identified £2.8m capital surplus in the Education Programme. However, other capital schemes are competing for these same funds, these include;

- The Council's ICT programme (Capital requirement £450k)
- Shaw House car park (Capital requirement £180k)
- Rights of way improvements - post flooding (Capital requirement £180k)

5.2 Unless other budget sources are identified, or other capital schemes are cancelled or deferred, the investment quantum in SEP for extending West Berkshire's superfast broadband coverage will directly affect the viability of the other schemes listed above. The Table at Appendix C outlines the impact of the various SEP funding options on the capital programme.

6. Recommendations

6.1 Officers recommend an increase in the provision in the Council's capital programme for broadband improvement from its current level of £400k (+£300k LEP contribution), to take advantage of the available Government SEP funding to increase West Berkshire's Superfast Broadband coverage.

6.2 There are 4 investment options outlined below, option 4 is recommended;

- **SEP Option 1 - Superfast 90% (Fibre only):** Investing an additional £280k of WBC capital funds in FTTC to increase West Berkshire's superfast broadband coverage to 90%.
- **SEP Option 2 - Superfast 91.5% (Fibre only):** Investing an additional £540k of WBC capital funds in FTTC to increase West Berkshire's superfast broadband coverage to 91.5%.
- **SEP Option 3 – Superfast 95.1% (Fibre 90% + Wireless):** Investing an additional £856k of WBC capital funds extending superfast by FTTC to 90% then to 95.1% via wireless technology.
- **SEP Option 4 (Recommended) – Superfast 95.4% (Fibre 91.5% + Wireless):** Investing an additional £1.075m of WBC capital funds extending superfast by FTTC to 91.5% then to 95.4% via wireless technology.

6.3 **Note:** West Berkshire on behalf of the six Berkshire unitary councils is required to inform BDUK of Berkshire's level of commitment to the SEP funds by 30th June 2014.

Appendices

Appendix A – BT Nov. '13 Estimate - West Berkshire 90% Superfast Coverage (*Please note that this appendix is confidential and must be treated accordingly*)

Appendix B – BT Mar. '14 Estimate - West Berkshire 95% Superfast Coverage (*Please note that this appendix is confidential and must be treated accordingly*)

Appendix C – WBC Capital Programme- Additional Capital Allocation Options

Appendix D - West Berkshire Anticipated Broadband Coverage from Differing WBC Capital Investments

Consultees

Local Stakeholders: Superfast Berkshire Project Board, Corporate Board, ICT Programme Board, Berkshire Chief Executives Group, Berkshire Leaders

Officers Consulted: Nick Carter (Project Sponsor), John Ashworth, David Holling, Andy Walker, Colin Batchelor, Shiraz Sheik and Corporate Board

Trade Union: -

