

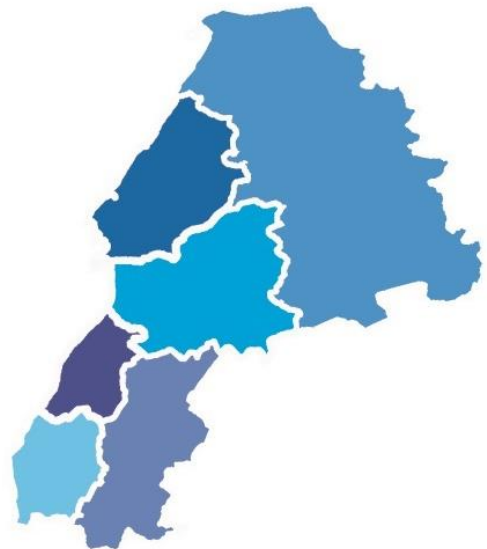


Allerdale Borough Council



Allerdale Local Plan (Part 2) Site Allocations

Broadband Topic Paper



Introduction

1. This topic paper has been produced in order to inform the preparation of Local Plan (Part 2) policies to provide background information and evidence to support draft Policy SA33.
2. High speed and good quality broadband is becoming an increasingly and significantly important aspect of modern, everyday life for both residents and businesses within Allerdale. Having fast and reliable broadband will: facilitate the growth of a sustainable and local economy; provide opportunities for community cohesion, particularly in our rural areas; support education and learning; and provide homeworking opportunities.
3. There is an aspiration for all Cumbrian homes to be able to be connected to at least 30Mbps and a preference for the expansion of full fibre ultrafast services where possible. Maximising full fibre broadband coverage is important to encourage the commercial expansion of 4G services and the future development of 5G mobile coverage across the county.

What is broadband?

4. There appears to be a variation in definitions on what is classified as standard, superfast and ultrafast broadband (see Table 1); speeds are measured by megabits per second (Mbps).

	UK Government	Ofcom
Standard	2 Mbps+	10 Mbps+
Superfast	24 Mbps+	30 Mbps+
Ultrafast	100 Mbps+	300 Mbps+

Table 1: Definition of broadband speeds

5. In order to increase the coverage of faster broadband speeds, technology is developing to provide better fibre broadband connections.
6. Traditionally, broadband connections have been made by Fibre to the Cabinet (FTTC) connections. This involves running fibre optic cables from the telephone exchange/distribution point to the street cabinets which then connects to a standard telephone line, usually through a copper cable. The disadvantage of this method is that the further away the property is from the cabinet, the slower the broadband speed will be.
7. To combat this, Fibre to the Premises (FTTP) has been developed which provides a fibre connection all the way from the telephone exchange/distribution point to the property, allowing faster broadband speeds to be reached.
8. The maximum speed that can be reached via the Fibre to the Cabinet method is 80 Mbps, but, realistically, it is unlikely that users will actually be able to receive this speed. A Fibre to the Premises connection could reach speeds of up to 330 Mbps and it will not depend on property proximity to the cabinet.

9. There are other methods which can deliver broadband:
- Cable . this is similar to Fibre to the Cabinet but coaxial cables are used in place of copper which provides a faster internet connection (up to 300 Mbps)
 - Fixed wireless . this uses mobile network technology and so provides a wireless rather than a fixed connection to a property. By removing the physical connection to the property, the work associated with the laying and maintenance of the cables is also removed. Currently, the speeds tend to be lower and will be affected by the number of users accessing the network within the property radius. However, it is anticipated that these issues will be overcome by the introduction of 5G in 2020.
 - Satellite . generally this is an option for those living in rural areas where fixed-line broadband services are not available. A satellite dish is used to provide a two-way access to broadband services, although speeds tend to be lower (up to 30 Mbps)

Local data

10. There has been national research released which looks at broadband coverage and speeds across each UK ward¹ (see Appendices 1 and 2).
11. All Allerdale wards have an average download speed that is lower than the national average. The UK national average speed is 44.6 Mbps; Allerdale's best performing ward, Christchurch, receives an average download speed of 31.3 Mbps.
12. Ofcom define standard broadband speed as more than 10 Mbps; 11 (35%) of Allerdale wards have average speeds which meet this definition.
13. As it would be expected, the majority of the wards with the lowest rankings for the average download speed are located in areas that are classified as sparse and super-sparse. However, it is interesting to note that the ward with the highest population density (Moorclose . 38.80 people per hectare) is located in the bottom ten of the ward rankings. In the top ten ranked wards, four are classed as urban areas, four are sparse areas and two are super-sparse.
14. In the 2017 rankings, 11 (35%) of the wards improved upon their 2016 ranking. The three wards that improved their average download speed the most were Wharrels (+2,208 places), Holme (+1,978 places) and Aspatria (+1,760 places). 65% of Allerdale wards had average download speeds which were worse in 2017 when compared to 2016. The three wards which fell the most in ranking terms were Wampool (-668 places), Seaton (-734 places) and Stainburn (-895 places).
15. Wampool was the worst performing Allerdale ward in both 2016 and 2017; in 2017 Wampool actually fell in the bottom 1% performing wards across the UK.

¹ <https://researchbriefings.parliament.uk/ResearchBriefing/Summary/CBP-8200>

International legislation

16. The European Directive 2014/61/EU² was made on 15 May 2014 to support the Digital Agenda for Europe in order to encourage economic and social prosperity. 80% of the costs associated with broadband deployment are attributed to the civil engineering works and the Directive requires Member States to implement measures to reduce this cost through:
 - Providing access to existing physical infrastructure (e.g. cabinets, poles and masts), including those belonging to other utility providers, for broadband operators willing to deploy high speed networks
 - Achieving efficient co-ordination of civil works
 - Achieving faster, simpler and more transparent permit-granting procedures
 - Ensuring the equipment of new buildings and major renovations with high-speed physical infrastructure and access to in-building infrastructure
17. The Directive is also intended to help achieve the European Commission's two main broadband targets by 2020:
 - Broadband speeds of 30 Mbps for 100% of households; and
 - At least 50% of households to be subscribing to speeds of over 100 Mbps

National legislation

The Building (Amendment) Regulations 2016

18. The Building Regulations were amended in 2016 in order to allow the Government to implement the European Union requirements set out in Directive 2014/61/EU.
19. Part R of the Regulations relates only to the internal physical infrastructure required for high-speed electronic communications networks within the site curtilage or boundary of a new development. Any site-wide infrastructure should be installed by the developer in consultation with a telecoms provider.
20. The Regulations also apply to major renovation works (change of use or extensions) where the existing in-building physical infrastructure is being renovated, either wholly or a significant part.

The Communications (Access to Infrastructure) 2016

21. The Communications (Access to Infrastructure) came into force on 31 July 2016 following the European Union Directive 2014/61/EU. It introduced a number of measures to reduce the cost of deploying high-speed electronic communications by providing network operators, including broadband service providers, the right to:
 - Access information about physical infrastructure;

² <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32014L0061>

- Request and carry out surveys of the physical infrastructure;
- Access physical infrastructure;
- Access in-building infrastructure;
- Obtain information concerning civil works; and
- Co-ordinate civil works that are being carried out from public funds

Digital Economy Act 2017

22. The Digital Economy Act 2017 received Royal Assent on 27 April 2017 and was released to support the Government's aim to become a world leader in the digital economy. Part of the Act seeks to provide better connectivity so that everyone has access to broadband wherever they live. In order to achieve this, the Universal Service Obligation was introduced which allows users to request broadband speeds of at least 10Mbps by 2020. Ofcom are able to subsequently increase this minimum broadband speed requirement should they feel it is necessary.

National policies and strategies

National Planning Policy Framework

23. The National Planning Policy Framework acknowledges the social and economic benefits that high speed broadband can deliver and the Government has identified the crucial role that local authorities have in supporting the rollout of superfast broadband when developing and updating Local Plans and when considering planning applications³. This is in line with paragraph 43 of the National Planning Policy Framework which says that in preparing Local Plans, local planning authorities should support the expansion of electronic communication networks, including telecommunications and high speed broadband.

Digital Infrastructure Investment Fund

24. The Digital Infrastructure Investment Fund was launched in July 2017 and pledged £1 billion (made up of £400 million from the Government and the rest matched funded by the private sector and local authorities) to help deploy ultrafast Fibre to the Premises to an extra 2 million homes and business units.

National Agreement between the Government, Openreach and the Home Builders Federation

25. In February 2016 an agreement was reached between the Government, Openreach and the Home Builders Federation in relation to delivering superfast broadband connectivity to new build properties in the UK. The new deal will see fibre based broadband offered to all new developments either for free or as part of a co-funded initiative.

³ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/416827/superfast-broadband-new-builds.pdf

26. Openreach has introduced an online tool for homebuilders; this will allow them to be able to identify if they will qualify for free fibre connection, or if they will be required to contribute to the connection costs. Where developers are required to contribute to the costs, they will have access to a rate card which details the fixed cost contributions required. Before seeking contributions from developers, Openreach will make a significant contribution to the costs. The Home Builders Federation will promote and support the uptake of the co-funding offer amongst their members, and emphasise the need to plan for broadband connectivity early in the development process.
27. In order to benefit from the Openreach connection opportunity, developers must register their site for a connectivity assessment at least nine months before the date that they want Openreach to provide a service to the first property.
28. Fibre to the Premises will be provided free of charge for residential developments of 30 houses or more, if they are registered in time. For developments of 2-29 units, Openreach will review the available technology in the area and if Fibre to the Cabinet infrastructure is not available free of charge, then developers can decide whether or not to pay a contribution to secure the implementation of the technology.

Local policies and strategies

Allerdale Local Plan (Part 1)

29. A Strategic Objective (So3f) of the Allerdale Local Plan (Part 1) is to support improved digital connections, especially in rural areas. Whilst there is not an adopted planning policy solely relating to broadband infrastructure, there are a number of policies which consider improvements to broadband provision (see Table 2).

Policy	Text
S2	Improve communications within the area as well as nationally and internationally, both in terms of digital connections, transport infrastructure and services.
S6a	Support the development of superfast and next generation broadband across the Locality, with a focus on the key business locations such as Workington town centre and Lillyhall industrial estate.
S6b	Work with partners to maximise the roll out of superfast and next generation broadband across the Maryport Locality to both residential and business users.
S6c	Work with partners to maximise the roll out of superfast and next generation broadband across the Cockermouth Locality to both residential and business users.
S6d	Work with partners to maximise the roll out of superfast and next generation broadband across the Wigton Locality to both residential and business users.
S6e	Work with partners to maximise the roll out of superfast and next generation broadband across the Silloth Locality to both residential and

	business users
S6f	Work with partners to maximise the roll out of superfast and next generation broadband across the Aspatria Locality to both residential and business users.
S13	The Council will work with partners to maximise the economic opportunities identified in the West Cumbria Economic Blueprint by supporting the Energy Coast Innovation Zone through: playing a key role in delivering supporting infrastructure, such as broadband.
S21	The infrastructure, facilities and services to which development may be required to contribute includes broadband and communication networks
DM13	Support will be given to network telecommunications development where: a) It can be demonstrated that there is no alternative and less visually harmful means of meeting the network coverage requirements of the operator; b) The reuse or sharing of existing facilities has been explored and is not possible due to technical or operational constraints; c) The development is sited, designed, coloured and, where relevant, landscaped to minimise the visual impact and effect upon the character and amenity of the surrounding area; d) There is not a significant adverse effect (either in isolation or cumulatively) on nature conservation features, biodiversity and geodiversity, Natura 2000 sites (including migration routes of protected birds), habitats and species; e) The special character and appearance of all heritage assets and their settings are preserved or enhanced; f) The relevant certificate is submitted confirming the development will operate within the International Commission for Non Ionising Radiation Protection (ICNIRP) guidelines for public exposure; g) Where the proposal is on or near an education facility, the relevant body has been consulted on the proposal.

Table 2: Local Plan (Part 1) Policies relating to broadband

Strategic Economic Plan

30. The Cumbria Local Enterprise Partnership seeks to develop Cumbria's economic potential and to create an additional 15,000 full-time equivalent jobs, boost the economy by £600 million and achieve 100% coverage of superfast broadband by 2024.
31. The Local Enterprise Partnership identified a need to invest in virtual connectivity technologies (e.g. superfast broadband) to support growth in high-technology businesses and academic research, and to bring business and communities together.
32. It is recognised that the provision of broadband is a particular issue in Cumbria, with large areas not being commercially viable due to the dispersed nature of the population. With the increase of homeworking, the importance of fast and secure broadband is viewed as critical infrastructure to support modern working practices.

33. An analysis of the Cumbrian economy was undertaken and one identified weakness is the limited (secure) high-speed broadband coverage. As a result, the Connecting Cumbria project was identified as an opportunity to improve this.

Connecting Cumbria

34. Broadband Delivery UK (BDUK) is a Government team responsible for delivering superfast broadband and local full fibre networks across the UK. The aim is to ensure superfast broadband (speeds of 24 Mbps or more) coverage for over 95% of UK premises and has provided universal access to basic broadband (speeds of at least 2 Mbps).
35. Connecting Cumbria, a partnership between Cumbria County Council and BT, is in charge of rolling out the BDUK programme in Cumbria and aims to bring superfast broadband to most properties in the county by the end of 2018.
36. Figure 1 and Table 3 show how coverage of fibre, superfast and ultrafast broadband has improved in Allerdale between January 2010 and April 2018⁴ (these figures included the areas within Allerdale which are part of the Lake District National Park . it has not been possible to separate the data for these areas).

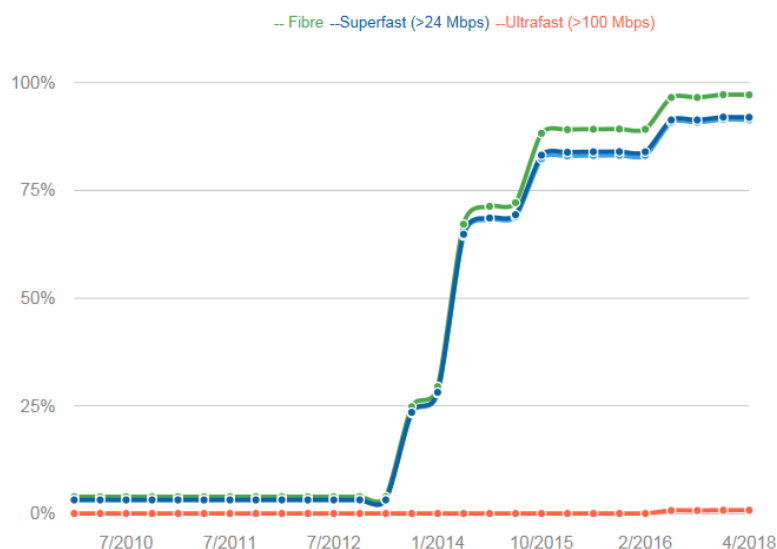


Figure 1: Graph showing coverage of fibre, superfast and ultrafast broadband in Allerdale between January 2010 and April 2018.

Date	Superfast (>24 Mbps)	Superfast (>30 Mbps)	Fibre	Ultrafast (>100 Mbps)
January 2010	3.2%	3.2%	4%	0.1%
January 2011	3.2%	3.2%	4%	0.1%
January 2012	3.2%	3.2%	4%	0.1%
January 2013	3.2%	3.2%	4%	0.1%

⁴ <https://labs.thinkbroadband.com/local/allerdale.E07000026>

January 2014	28.2%	27.9%	29.5%	0.1%
January 2015	68.6%	68.2%	71.3%	0.1%
January 2016	84%	83.1%	89.2%	0.1%
January 2017	N/A	N/A	N/A	N/A
January 2018	91.3%	90.8%	96.6%	0.8%
April 2018	92%	91.4%	97.2%	0.8%

Table 3: Table showing coverage of fibre, superfast and ultrafast broadband in Allerdale between January 2010 and April 2018

37. Any new build properties completed after January 2017 were not eligible to be included within the Connecting Cumbria project. It was the responsibility of the property developer to liaise with broadband service providers how to make superfast broadband available to the new properties.

The Council's proposed policy

38. The Council is proposing to introduce a policy within the Local Plan (Part 2) to ensure that broadband connectivity is considered at the earliest opportunity in the development stages. The proposed policy can be seen in Figure 2.

Policy SA33 Broadband

This policy applies to all proposals for new residential and commercial development.

As it is the Council's intention for all new properties to be served by a high speed and reliable broadband connection, all applicants must demonstrate to the Council how they will install the necessary infrastructure (including ducting and cabinets) to allow broadband service operators to provide future occupants with fibre broadband connectivity.

If the provision of ducting for fibre broadband is not possible, then the applicant must demonstrate that they have explored alternative broadband provision options.

Figure 2: Proposed broadband policy

39. Developers will be required to provide the necessary ducting to allow the cable of the broadband operator to be pulled through to provide the broadband service. Cabinets will also need to be installed on site in order to allow the provision of Fibre To The Cabinet broadband.
40. Where this is not possible, developers will be required to demonstrate that they have assessed all of the options for broadband provision, including assessing the possibility to utilising fixed and satellite broadband. It is accepted that due to the rurality of parts of Allerdale, the provision of broadband access cannot be viably or physically achieved; the applicant will need to submit evidence to show that all reasonable steps have been undertaken to attempt to make provision.

Conclusion

41. There are international and national requirements to improve broadband connections across England, as well as a local desire, in order to provide social and economic benefits.
42. Data has shown that Allerdale is worse in terms of broadband performance when compared nationally; one ward in Allerdale actually fell in the bottom 1% for average download speeds in the 2017 rankings.
43. Given the importance of high speed broadband for residents and businesses, and the national requirements, it is considered appropriate for the Local Plan to include a policy which focusses on the delivery of fibre broadband infrastructure within new developments in Allerdale. The inclusion of the necessary infrastructure at the development/construction stage will save future occupants and the relevant broadband service operators having to retrofit the equipment, thereby saving time, money and disruption.
44. The Council is aware that due to the rurality of some parts of the district that there could be issues in providing an improved broadband service; however, it is arguably even more important to ensure that all methods of broadband provision are assessed in such areas in order to connect residents in these locations.

Appendix 1 – Broadband data for Allerdale Wards

Wards that are performing better than the UK national average are highlighted in green

This data is sorted by the average download speed in each Ward, ordered by lowest to highest.

	Average Download Speed Mb/s	Connections Receiving Under 10 Mb/s %	Connections Receiving Superfast Speeds (>30 Mb/s) %	Average speed for basic broadband lines (Mb/s)	Average speed for superfast lines (Mb/s)	Data available
	Higher = better	Lower = better	Lower = better	Higher = better	Higher = better	
UK average	44.6	24.0%	48.9%	11.8	77.7	99%
Crummock	10.7	76.0%	9.4%	7.0	47.1	92.8%
Warnell	11.8	80.0%	13.8%	5.2	52.4	87.8%
Boltons	13.2	65.6%	13.1%	7.2	52.4	93.4%
Waver	14.6	55.0%	15.5%	9.5	42.6	92.1%
Clifton	18.2	64.4%	34.0%	3.2	47.4	95.1%
Solway	19.9	59.5%	32.7%	5.7	49.2	88.1%
Marsh	20.8	51.8%	34.1%	6.2	49.0	93.2%
Seaton	21.6	56.3%	37.3%	5.8	48.1	97.8%
Derwent Valley	23.3	53.1%	33.3%	8.5	52.8	97.8%
Moorclose	24.4	32.7%	37.9%	10.2	47.5	98.2%
Silloth	24.5	41.9%	32.4%	11.2	52.4	96.1%
Dalton	24.8	47.6%	43.5%	5.0	50.4	96.0%
Ewanrigg	25.1	18.6%	32.5%	13.3	49.7	96.1%
Flimby	25.2	48.6%	45.5%	5.9	48.3	96.5%
Stainburn	25.5	37.5%	40.6%	9.9	48.2	99.1%
Moss Bay	25.9	19.1%	36.4%	12.9	48.8	98.2%
Wigton	26.3	9.7%	29.6%	16.3	50.2	96.8%

Wampool	27.2	43.7%	49.9%	4.7	49.8	90.2%
All Saints	27.7	11.2%	34.5%	14.8	52.3	98.3%
St Michael's	28.0	10.1%	31.0%	16.6	53.3	96.1%
Keswick	28.1	10.5%	32.0%	15.9	53.9	96.2%
Ellenborough	28.2	7.5%	35.4%	15.6	51.2	97.7%
St John's	28.4	8.6%	33.1%	16.6	52.1	97.2%
Wharrels	28.6	38.6%	51.4%	6.7	49.2	82.7%
Harrington	29.0	14.8%	37.7%	15.3	51.7	97.3%
Holme	29.1	50.6%	47.5%	6.4	54.1	92.6%
Aspatria	29.2	25.2%	46.2%	12.2	49.0	94.2%
Ellen	30.1	36.4%	55.9%	6.6	48.8	98.2%
Broughton St Bridget's	30.6	28.0%	54.2%	8.7	49.0	97.4%
Netherhall	31.2	6.1%	36.4%	18.5	53.3	96.6%
Christchurch	31.3	6.5%	37.4%	18.0	53.6	97.5%

Appendix 2 – Ward ranking for average download speed

		2016 Rank: Average download speed	2017 Rank: Average download speed	Change between 2016 and 2017 rankings	Area Type
		(1=best, 9,131=worst)	(1=best, 9,131=worst)		
1	Wharrels	7,633	5,425	+ 2,208	Super-sparse
2	Holme	7,173	5,195	+ 1,978	Super-sparse
3	Aspatria	6,925	5,165	+ 1,760	Sparse
4	Flimby	7,653	6,993	+ 660	Sparse
5	Derwent Valley	8,062	7,670	+ 392	Super-sparse
6	Ellen	5,075	4,876	+ 199	Sparse
7	Marsh	8,440	8,248	+ 192	Super-sparse
8	Silloth	7,432	7,252	+ 180	Sparse
9	Solway	8,478	8,415	+ 63	Super-sparse
10	Broughton St Bridget's	4,764	4,732	+ 32	Sparse
11	St John's	5,531	5,525	+ 6	Urban
12	Moss Bay	6,667	6,692	-25	Urban
13	Christchurch	4,396	4,564	-168	Urban
14	St Michael's	5,430	5,705	-275	Urban
15	Moorclose	6,995	7,317	-322	Urban
16	Waver	8,562	8,914	-352	Super-sparse
17	Keswick	5,299	5,673	-374	Sparse
18	Dalton	6,778	7,154	-376	Sparse
19	Ellenborough	5,159	5,595	-436	Urban
20	Netherhall	4,157	4,594	-437	Urban
21	Boltons	8,544	8,982	-438	Super-sparse
22	Wigton	6,046	6,501	-455	Urban
23	Crummock	8,605	9,062	-457	Super-sparse
24	Warnell	8,467	9,042	-575	Super-sparse
25	Clifton	8,031	8,611	-580	Sparse
26	All Saints	5,220	5,852	-632	Urban
27	Ewanrigg	6,385	7,019	-634	Sparse
28	Harrington	4,595	5,245	-650	Sparse
29	Wampool	5,403	6,071	-668	Sparse
30	Seaton	7,368	8,102	-734	Sparse
31	Stainburn	5,996	6,891	-895	Urban