

<b>Broadband Service Update</b>	<b>14<sup>th</sup> February 2017</b>
<b>To: The Leisure and Development Committee For Information</b>	

<b>Linkage to Council Strategy (2015-19)</b>	
<b>Strategic Theme</b>	Accelerating Our Economy & Contributing To Prosperity. Innovation and Transformation
<b>Outcome</b>	The Council will embrace new technologies and processes where they can bring about better experiences for citizens and visitors.
<b>Lead Officer</b>	Head of Prosperity and Place Business Development Manager
<b>Cost: (If applicable)</b>	N/A

**The purpose of this report is to bring to members the first stage of analysis of broadband issues in the area.**

### **Background**

- Council has identified lobbying and actions to improve connectivity across the Borough as part of a wider strategic project.
- From our discussions with OFCOM, it is obvious that Council does not have the financial resources to develop infrastructure schemes, which remain the domain of telecoms providers.
- There is a specific fund of around £200,000 under the Rural Development Programme which can be allocated to the improvement of broadband in rural areas.
- No clear direction on how this could be spent, or the parameters within which it can be used, has been forthcoming.
- Obtaining clear information from either the telecoms providers or the Department for the Economy on the future development of broadband has been difficult at best.

### **The Stage 1 Study**

In August 2016, Council approved the development of an initial study to map the problem, using community engagement, and a model which had been used previously in Armagh Banbridge Craigavon Council.

This would map “not-spots” and areas of low connectivity, as a pre-cursor to a more detailed solutions report.

This will give officers and members;

- A clearer view of “where the market is at”, in terms of provision for those areas which are not best served by mainstream providers.
- A report which can also be fed into the Local Action Group deliberations as to how to take forward any scheme in the Borough.

### **Report Content Summary**

1. Collation and summary of findings from community feedback across the Borough, using the maximum download and upload bandwidth achievable, and creating a map of provision across the Borough.
2. Initial prioritisation of those areas which responded, looking at demand for community improvement – this feeds into the potential funding from the Rural Development Programme, and gives an initial direction of need.

### **Headline Figures**

- 1029 responses, of which 136 were discounted for lack of information.
- 32% of respondents reported less than 2mbps of maximum download bandwidth.
- 88% of respondents were unhappy with their broadband provision.
- Areas with the highest concentration of premises with a connection of 10mbps or less included:
  - The Cashel Road area
  - Brockagh
  - Knocknacurry/Cushendun
  - Moyarget
  - Dunloy
  - Artikelly

The full report is attached at Annex A.

To assist with potential future RDP direction of funding only, the researchers were asked to prioritise one area within each of the former council areas, based on the data they received as potential candidates for future funding – these were narrowed down to Dunloy, Artikelly, Brockagh and Moyarget. (Members should note – these are not final decisions for presentation to the LAG; merely a prioritisation based on information received).

### **Next Stages**

This is useful information to have, but with caveats. Such a study will always attract those who are dissatisfied with service well in excess of those who are “happy” with it. However, the extent of a lack of “decent service” for customers in rural areas cannot be denied given the extent of responses received.

It should also be noted that the rollout of Virgin Media’s dedicated network has now begun, and this may influence provision over the next two-to-three years. Council staff are already engaged with their community liaison team.

This part of the work is only Stage 1. The next stages will be twofold:

- There is a need for Council to be brought up to date with the breadth, coverage, cost and implementation potential of rural (and in some cases, edge-of-urban) area solutions.
- This stage 1 also needs to be forwarded to OFCOM for consideration and this will happen after presentation to Council. It will also be shared with the LAG for their consideration.

Staff will now move forward with the agreed second stage and report back to committee upon completion. Members will also be afforded the opportunity to a more technical presentation of the material available from both works.

## Introduction

Broadband provision has long been an issue for those living in rural areas. As broadband access becomes more universal it is becoming more and more difficult for those without access to participate in 21<sup>st</sup> century life.

Businesses without adequate broadband access are placed at a disadvantage. With cloud based services lowering overheads, e-commerce opening vast new markets and off site working allowing access for local residents to jobs across the world it is impossible for most industry sectors to compete without access to high quality broadband.

For this reason, many businesses located in broadband 'not spots' are paying extortionate prices for broadband provision to allow them to access services that their more urban competitors take for granted. With vastly increased overheads for broadband provision these businesses have less capital to invest in new jobs or expanding their business.

As research and access to learning materials increasingly move online- our children and young people are put at a disadvantage if they live in an area with poor broadband provision. This provides serious issues for parents, in some cases having to face the decision to relocate away from rural areas to ensure their children have access to the e-learning materials necessary for examinations and home studying.

With adult learning becoming more and more popular as people 're-skill' later in life, those living in broadband 'not spots' are again disadvantaged as the vast majority of adult learning courses utilise home learning through the internet.

Outside of the economic and educational disadvantage to those living in 'not spots' there are serious issues faced when trying to access basic government services. Single Farm Payment applications, HRMC services and road tax are just some of the services based online today. As more and more government services move to online delivery it is imperative that government at all levels works to ensure that all citizens have access to high quality broadband provision.

As part of an ongoing commitment to improve connectivity within the borough, Causeway Coast and Glens Borough Council contracted iBub Communications and Evolved Enterprises to conduct a research exercise with the aim of identifying broadband problem areas as a possible pre-cursor to a more detailed 'solutions report'.

## Research Context

The Digital Agenda for Europe identifies accessibility to reliable, high speed broadband for citizens and businesses as one of seven pillars for economic growth and development. The UK government has also recognised that access to adequate broadband provision is a key factor in enhancing quality of life and supporting economic growth.

### **Philip Hammond, UK Chancellor:**

*Our future transport, business and lifestyle needs will require world class digital infrastructure to underpin them...*

*So, we will invest over £1 billion in our digital infrastructure to catalyse private investment in fibre networks and to support 5G trials. And from April we will introduce 100% business rates relief for a 5-year period on new fibre infrastructure, supporting further roll out of fibre to homes and businesses.*

*We have chosen to borrow to kick-start a transformation in infrastructure and innovation investment. But we must sustain this effort over the long term if we are to make a lasting difference to the UK's productivity performance.*

*So today I have written to the National Infrastructure Commission, to ask them to make their recommendations on the future infrastructure needs of the country. Using the assumption that government will invest between 1% and 1.2% of GDP every year from 2020 in economic infrastructure covered by the Commission.*

*Extract from 2016 Autumn Statement in the House of Commons*

### **Matthew Hancock, UK Digital Minister:**

*And believe you me: we will ensure Britain gets connected. The future is about enabling gigabit speeds, and high quality connectivity across the country. Demand is only going to rise so we need to stay ahead of the curve. When it comes to fibre, it is a case not of if, but of when.*

*Speaking to the 'Broadband World Forum' conference 19<sup>th</sup> October 2016*

Closer to home, successive ministers at Stormont have outlined a commitment to improving broadband connectivity across Northern Ireland.

**Simon Hamilton, NI Economy Minister**

*We have made a lot of investment over the last number of years. As I pointed out before, some £64 million has been invested in broadband projects since 2008. That helped to give Northern Ireland the competitive advantage of being the first region with 100% broadband capability in the whole of Europe. We have not maintained that advantage in recent times in spite of the considerable investments that we have made. I want to regain that competitive advantage. It is not just about helping households to get a good speed of broadband; it is also about helping our economy. I have visited some companies, including some in the Member's constituency, that sometimes struggle to get the speed that they require to do business in an increasingly closely connected global economy. I want to make sure that those businesses have that competitive edge. We are looking at options that, although some considerable investment would be required, would give Northern Ireland back its competitive advantage in broadband connectivity.*

*Speaking in the assembly chamber 21<sup>st</sup> November 2016*

With a growing determination and increased funding to finally tackle the lack of provision in rural 'not spots', it is of vital importance that councils have an understanding of where these not spots are in order to begin the process of providing solutions.

## Methodology

### Stage 1

The project team created, promoted and analysed a survey of fixed line broadband provision within the council area, presenting findings in map form.

The survey questions were drafted and responses were collected both online and on paper copies delivered to council offices. We reached out to each councillor and local press within the council area to promote the survey as well as utilising social media.

Once the data was collected the project team analysed each phone number to establish the maximum download and upload bandwidth achievable. This data was then used to create a map of broadband provision across the borough.

The project team used information from Ofcom and the Department of Media, Culture and Sport to put this information in context within Northern Ireland and the United Kingdom.

### Stage 2

Once provision within the borough had been mapped we began the process of prioritising areas for improvement. As per the brief we set out to identify four areas, one within each former council area using the criteria below:

- Current provision
- Number of underserved premises
- Demand within the community for improvement

We had planned to incorporate information on planned improvements from the Department for the Economy into the selection process. While the survey was live, however the Department released a new consultation document outlining more detailed postcode level information on areas suggested for improvement.

The improvement to these areas is to be funded by approximately £1.7 million as part of the clawback scheme on existing improvement contracts. Due to the number of postcodes identified and limited budget we can confidently state that meaningful improvements will not be possible in the vast majority of these areas. For that reason, we have not factored these planned improvements into our selection criteria.

## Survey

The project team created a short questionnaire to gather data across the borough and launched it online on 28<sup>th</sup> October and was available for responses until 11<sup>th</sup> November. Responses could also be submitted in paper form at any of the council offices throughout the borough.

To promote the survey, the project team sent press releases- drafted in consultation with council press officers- to every publication across the borough. Emails were sent to every councillor in the borough asking them to alert constituents to the survey and we reached out to each MLA and MP asking them to promote the survey through their own social media channels. The councils own social media channels also promoted the survey.

The survey is presented on the next few pages as it appeared online.





Causeway Coast and Glens Borough Council has committed to developing partnerships which will improve broadband/internet access across the Council area. To do this, we first need to understand where the problem areas are.

We are therefore conducting a wide-reaching survey of the council area to identify internet not spots (those areas where residents and businesses can't get good internet service).

**start** press ENTER

### 1 → Is this a business or residential address? <sup>\*</sup>

if multiple premises please complete a separate survey for each address

**A Business**

**B Residential**

### 2 → What is your postcode? <sup>\*</sup>

Please don't leave any spaces between the letters or numbers

### 3 → What is the name of your road or street? <sup>\*</sup>



4 → What is your building or house number?\*

5 → What is the landline number for the property?

Please don't leave any spaces between the numbers.  
If you're not sure you can check this on your phone bill

6 → Are you happy with your current broadband/ internet service?\*

A Yes

B No

C I don't have broadband/ internet

“ That's all the questions, thank you

**Continue**

press ENTER

## Survey Responses

In total, we received 1029 responses to the survey. Of those, 136 failed to provide both a valid phone number and a valid address, meaning they were excluded from the results. Where a valid phone number was not provided the project team used address information to determine the maximum bandwidth available.

The data from these responses is laid out below in both table and chart form.

Table 1- Totals premises by max download bandwidth

Maximum Download Bandwidth	Total number of premises	Total residential premises	Total business premises
Less than 2Mbps	281	235	46
2Mbps- 9.9Mbps	340	283	57
10Mbps – 29.9 Mbps	110	94	16
More than 30Mbps	162	145	17
<b>Total</b>	<b>893</b>	<b>757</b>	<b>136</b>

Chart 1- All premises by Maximum download bandwidth

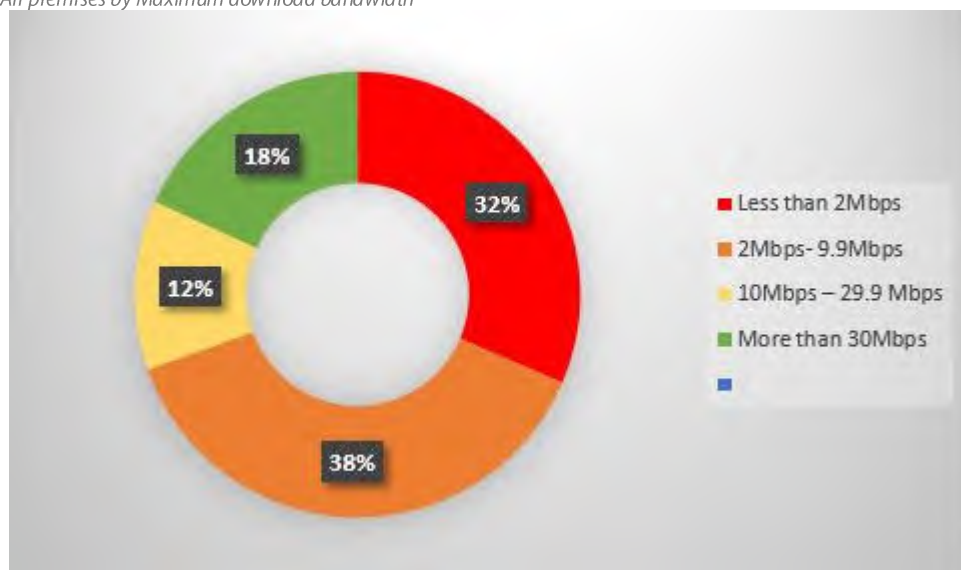
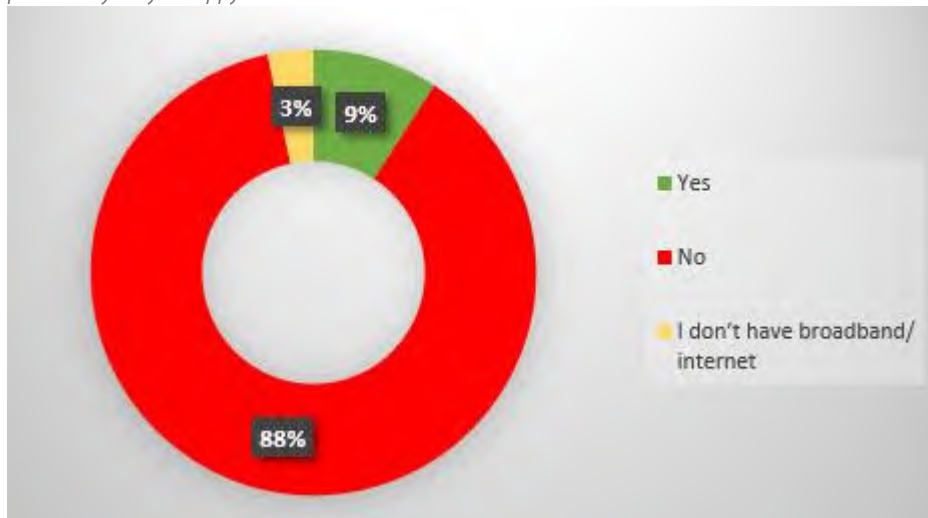


Table 2- Totals happy or unhappy with service

Are you happy with your current broadband/ internet service?	Total	Residential	Business
Yes	94	83	11
No	901	754	147
I don't have broadband/ internet	34	27	7

Chart 2- All premises by Are you happy with service



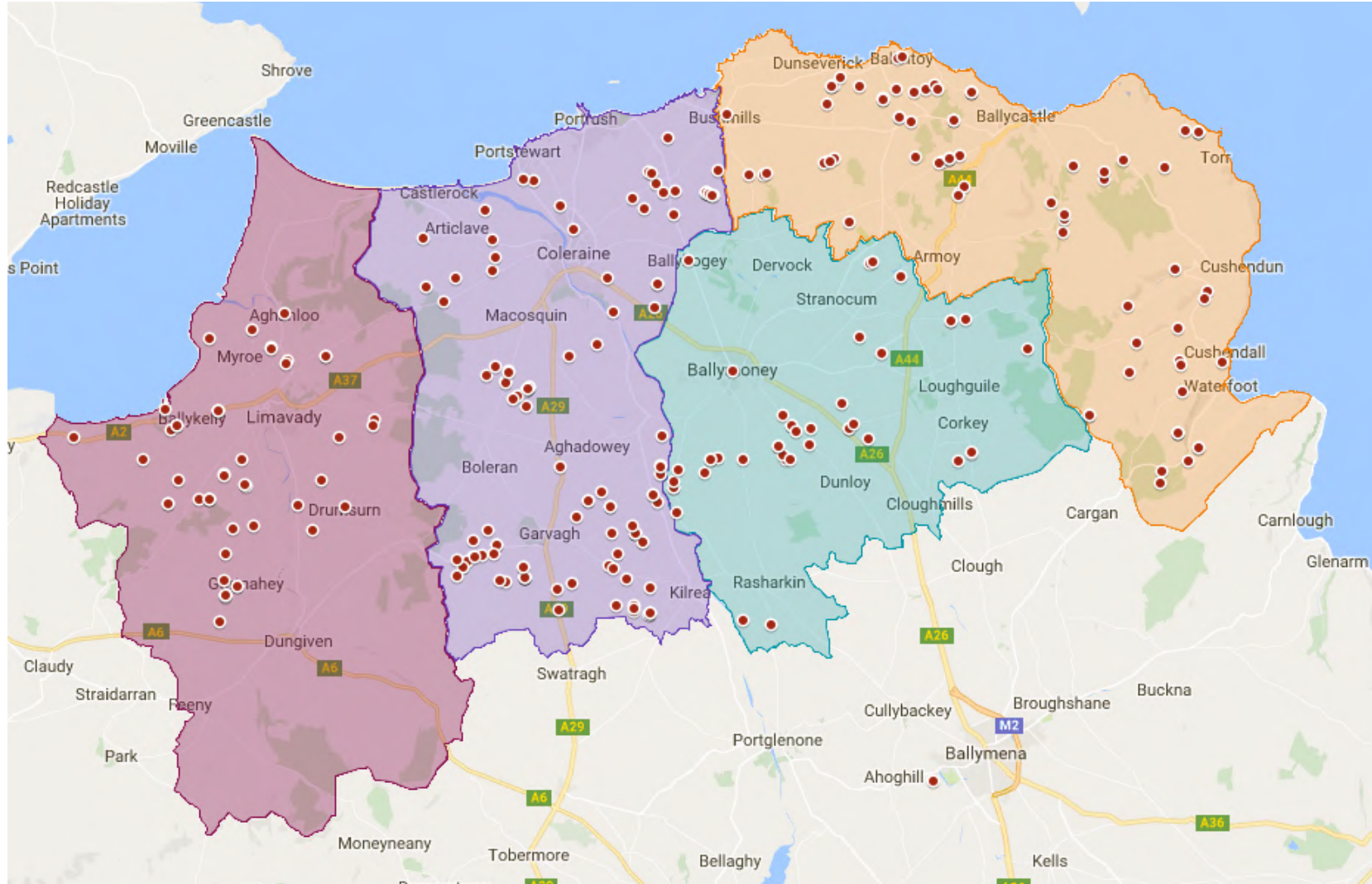
## Maps

Taking the survey responses from above, the project team classified each premises as being in one of four categories as detailed below and mapped accordingly. This allows us to demonstrate areas of High and low provision across the council area. By analysing the responses in the first two categories (Less than 2Mbps and 2Mbps-9.9Mbps) it is possible to see where the broadband not spots are located.

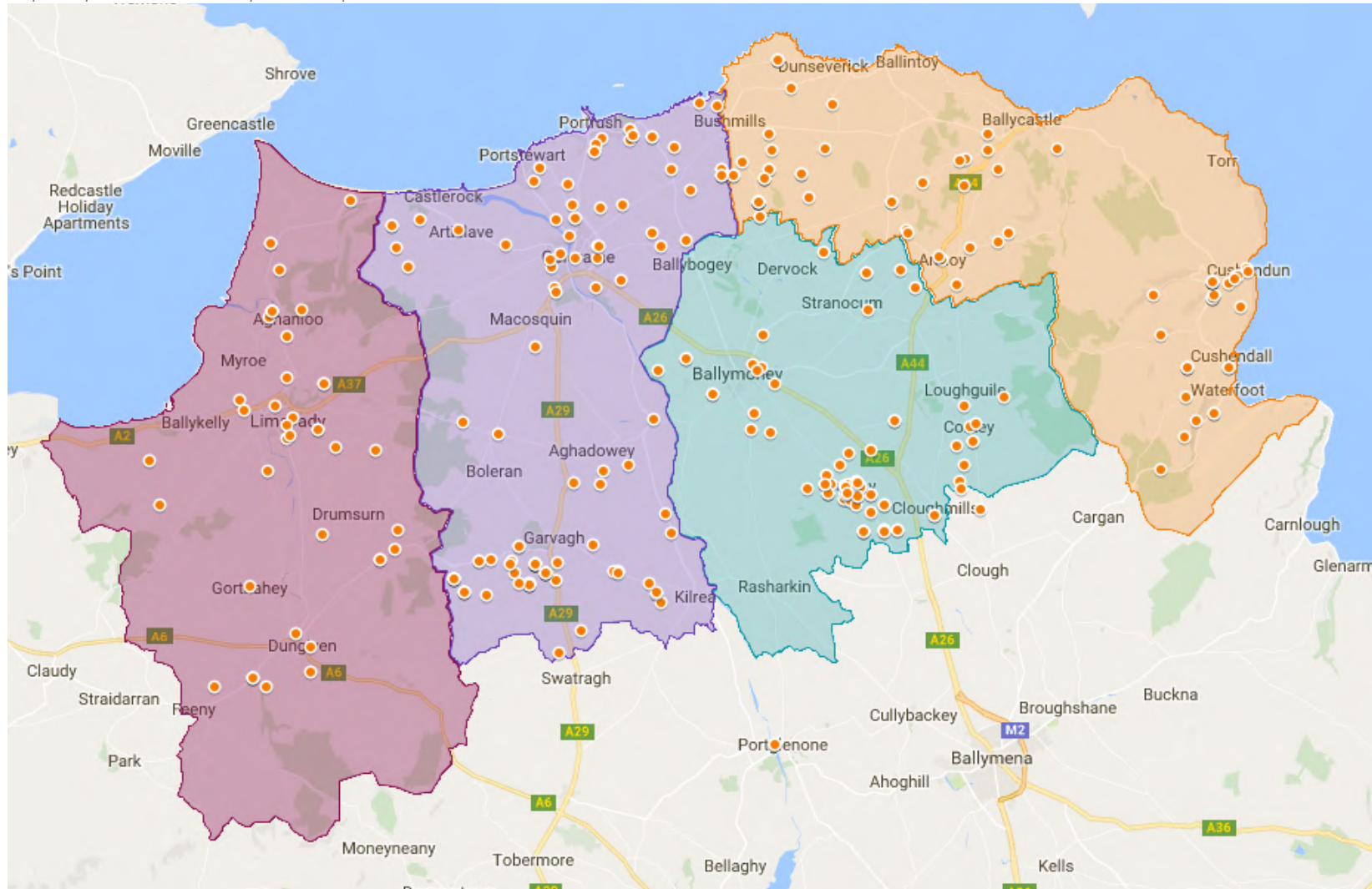
*Table 3- Bandwidth categories*

<b>Maximum Download Bandwidth</b>	
Less than 2Mbps	Eligible for Broadband connection voucher scheme
2Mbps- 9.9Mbps	Below proposed Universal Service Obligation
10Mbps- 29.9Mbps	Below definition of Superfast
More than 30Mbps	Superfast broadband

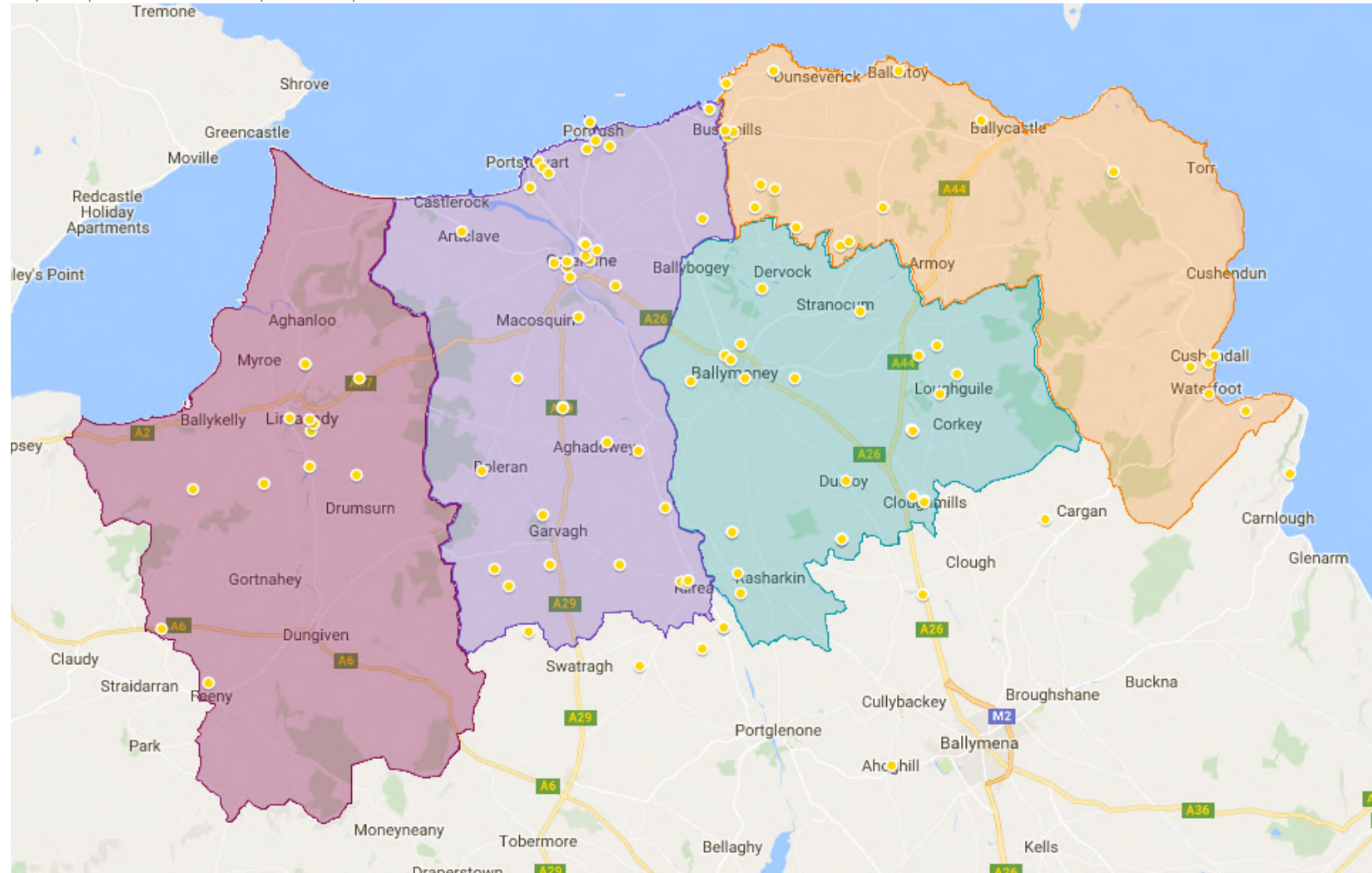
Map 1- all premises below 2Mbps



Map 2-all premises between 2Mbps and 10Mbps

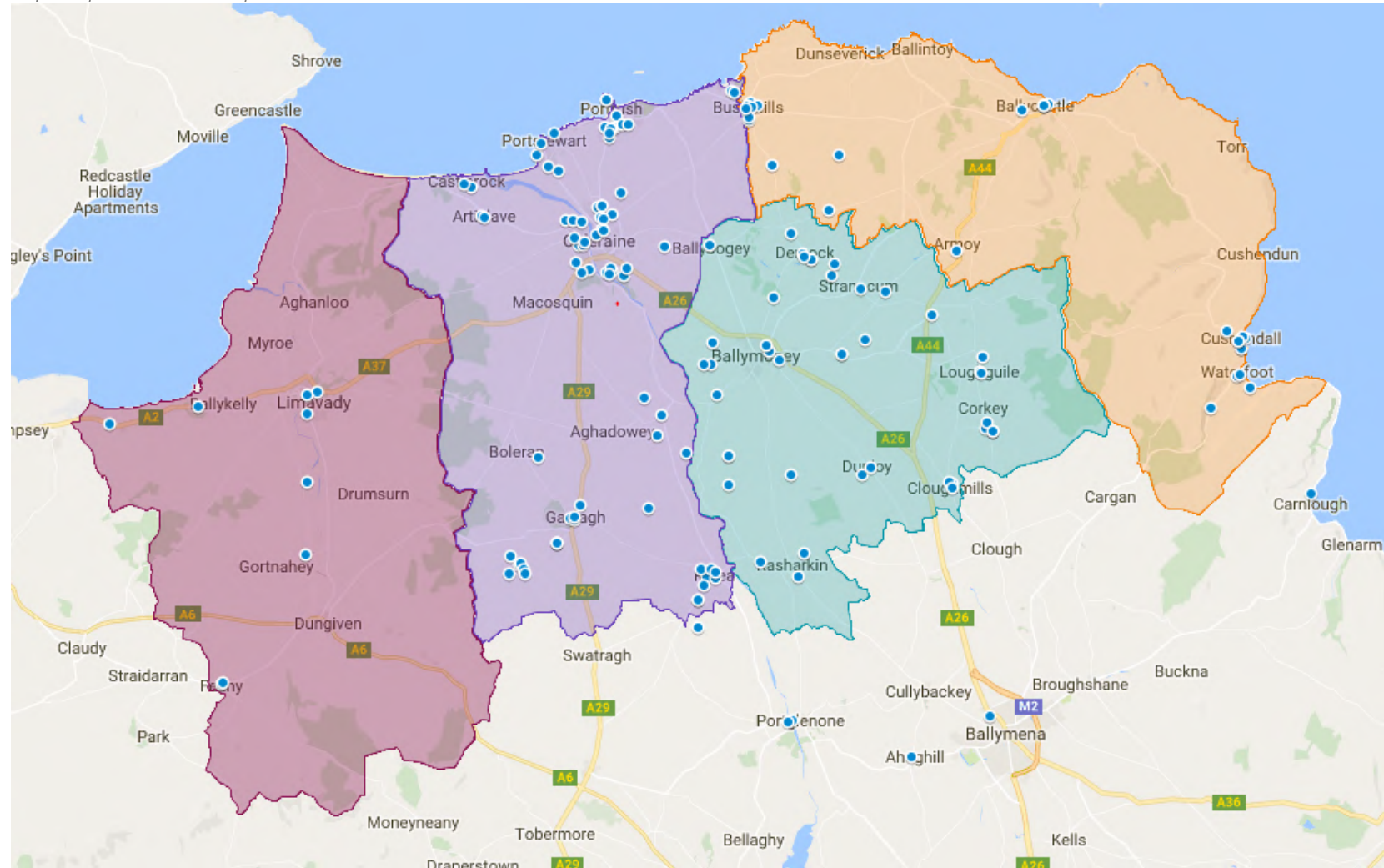


Map 3-all premises between 10Mbps and 30Mbps





Map 4 - all premises above 30Mbps



## Results in Context

To better understand the results and what they mean for provision within the Causeway Coast and Glens Council Area it is important to understand the wider context of broadband provision across Northern Ireland and the United Kingdom. To that end we have included key findings of recent reports from Ofcom, Department of Culture Media and Sport and the Department for the Economy.

### Ofcom

The latest Ofcom Connected Nations report (Dec 2015) identified the total number of premises within each category of connection. We have presented this data below, alongside that gathered from our survey.

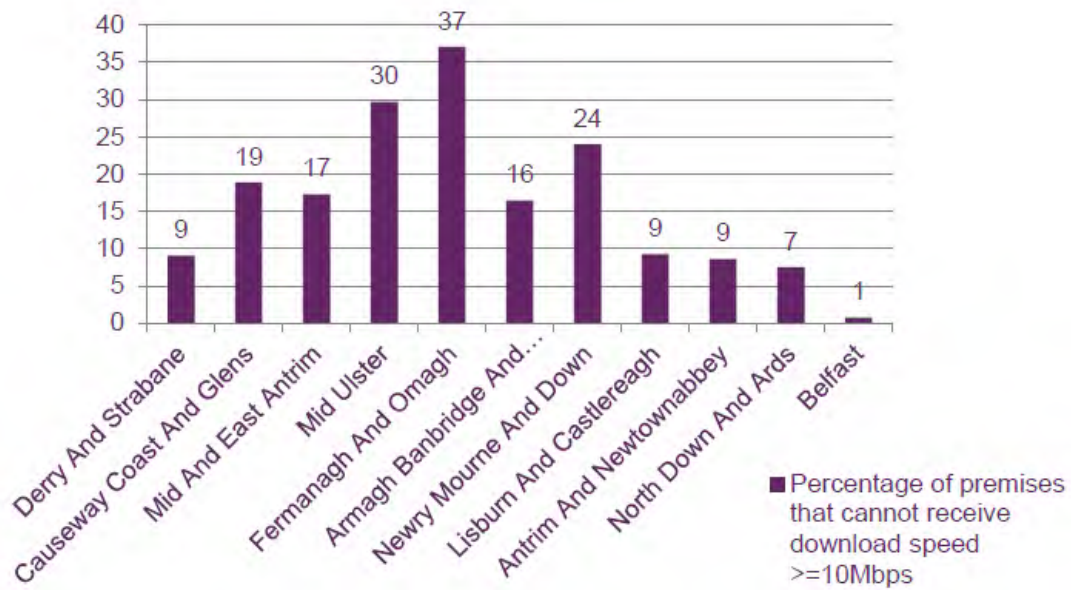
*Table 4-Ofcom/ survey comparison*

<b>Maximum Download Bandwidth</b>	<b>Percentage of NI premises</b>	<b>Percentage of UK premises</b>	<b>Percentage of survey premises</b>
<b>Less than 2Mbps</b>	6%	2%	31.5%
<b>2Mbps- 9.9Mbps</b>	14%	9%	38.1%
<b>10Mbps – 29.9 Mbps</b>	23%	17%	12.3%
<b>More than 30Mbps</b>	77%	83%	18.1%

**Note:** As this was a self-selecting audience it is to be expected that the responses would be heavily weighted towards those who suffer from poor broadband connectivity as those who can already access Superfast or beyond speeds will be much less inclined to complete the survey.

The report also identified the number of premises within each NI council area who were unable to access broadband connections of 10Mbps or above. We have included this data below. As you can see from the graph Ofcom determined that 19% of premises were unable to access broadband with more than 10Mbps, compared to 38.1% of our respondents.

Graph 1-Source Ofcom Connected Nations Report- NI Dec2015



### Department of Culture, Media and Sport

In July 2016, the House of Commons Culture, Media and Sport Committee (HoC DCMS), who are responsible for broadband provision, published a report on connectivity across the entire UK. Unlike Ofcom the committee did not publish detailed analysis of individual regions. The report did however highlight slightly different headline data on Superfast broadband coverage.

Table 5- HoC DCMS Superfast coverage

Superfast broadband coverage by Nation as at end of March 2016	
Percentage of premises covered	
England	90%
Northern Ireland	83%
Scotland	83%
Wales	86%

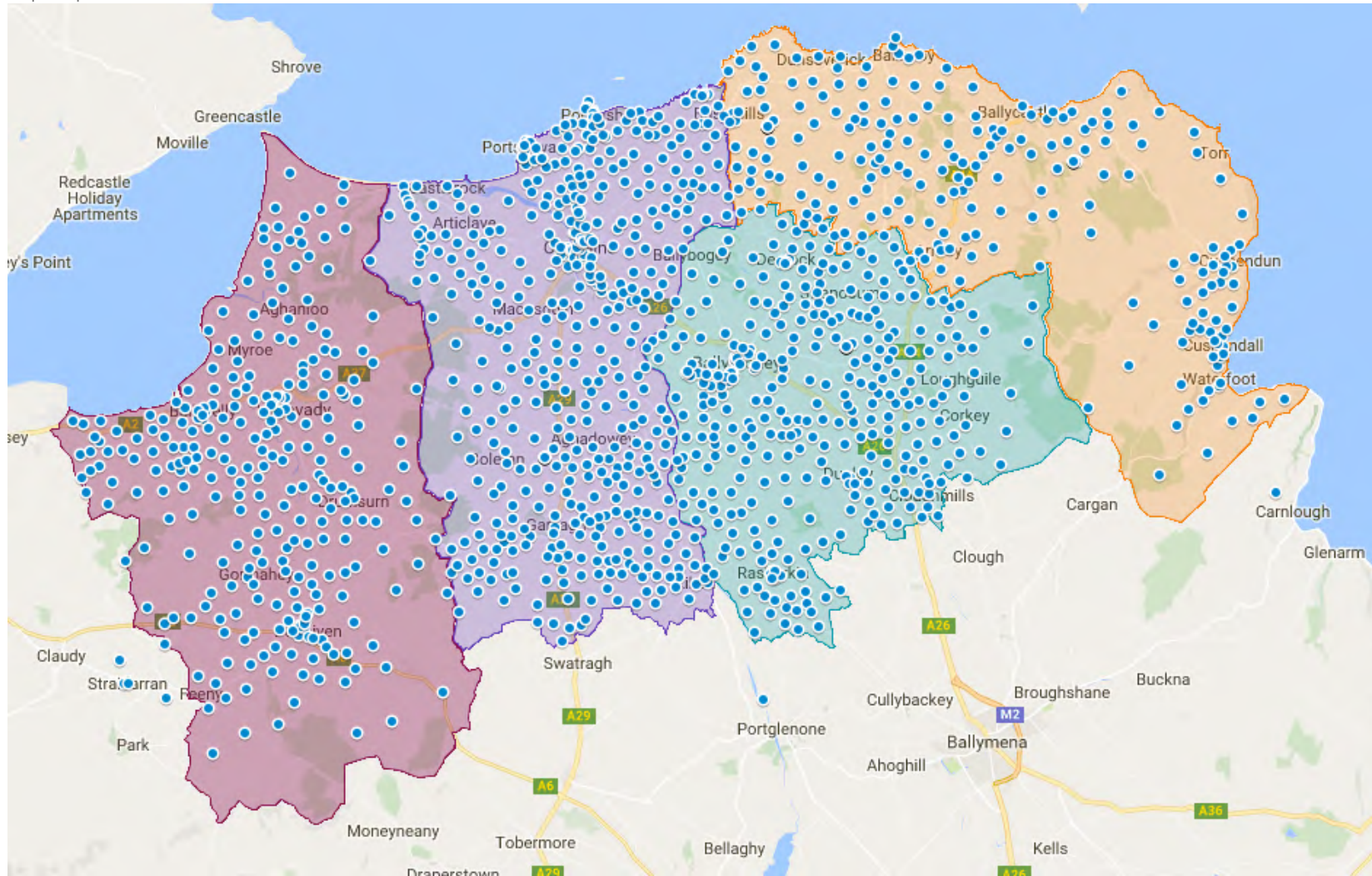
### **Department for the Economy**

The department released an open market review at the beginning of November 2016. This document identified postcode areas that the Department believed required further improvements to broadband provision. Some of these areas will receive further improvements as part of the clawback mechanism built into previous improvement contracts with BT. The approximate amount available for reinvestment with BT is £1.7 million. This money must be used by BT and is not up for tender to other providers. As such it is safe to assume that the money will be used to extend BT's coverage of their Fibre to the Cabinet (FTTC) network.

The sheer number of postcodes identified – 1323 in the Causeway Coast and Glens Borough Council area alone – mean that the budget allocated will be nowhere near enough to provide meaningful improvements to more than a small fraction of these areas. Furthermore, extended roll out of FTTC technology will have very little impact on rural areas as the nature of the technology requires close proximity to the nearest cabinet to access anything approaching Superfast speeds.

The 1323 postcodes within the Causeway Coast and Glens Borough Council area have been plotted on the map below. Each point on the map represents the centre of the postcode area. The map clearly demonstrates that the postcodes included cover almost everywhere within the council area and therefore cannot be used as a meaningful guide to planned improvements.

Map 5- Open Market Review Postcodes



### **Other Network Providers**

There are only two providers within the council area that have their own access network- BT and Virgin Media. The BT network expansion is tied to the ongoing Government funded project discussed above.

The project team also reached out to Virgin Media. Our intention was to gain an understanding of their current plans for network extension within the Causeway Coast and Glens council area. While they were not prepared to release detailed plans as they are commercially sensitive they did provide us with the following statement:

**Cormac Connolly**

**Virgin Media Director NI Customer & Lightning (Network Expansion)**

*"Virgin Media are committed to significantly extending their ultrafast broadband network in Northern Ireland as part of Project Lightning over the next 5 years. Virgin Media's initial focus is on Cities and high conurbation towns while extending beyond these areas, where over time we can cost effectively build out to reach more premises in NI. VM have had an introductory meeting with Causeway Coast and Glens council, to share our high level plans that will focus initially on servicing the larger conurbation areas in the borough and as a result we would not expect to be able to service rural areas within the next 24 months. Virgin Media are actively participating in the Department for the Economy's open market review to help optimise efficient use of public alongside private investment in overall NI strategic broadband provision."*

It is clear from this statement that Virgin will not be providing a solution to the connection issues within any of the broadband 'not spots' for at least the next two years. From what we know of their network roll out across England, Scotland and Wales, it is unlikely they will reach any rural areas of the council area for some time after that.

## Area/ Community Prioritisation

Once the survey had been completed and the results mapped, the project team began the process of selecting four areas for prioritisation- one from each former council area. The selection criteria is outlined below:

- Current provision- determined by maximum download bandwidth
- Number of underserved premises
- Demand within the community for improvement- determined by number of responses to the survey

We began by identifying those areas with the highest concentration of premises with a connection below 10Mbps. These areas were as follows:

- Cashel Road area to the SE of Letterloan and NE of Ringsend
- Brockagh
- Knocknacarry/Cushendun
- Moyarget
- Dunloy
- Artikelly

Map 6-Cashel Road Area



Map 7-Brockagh



Map 8-Knocknacarry/ Cushendun

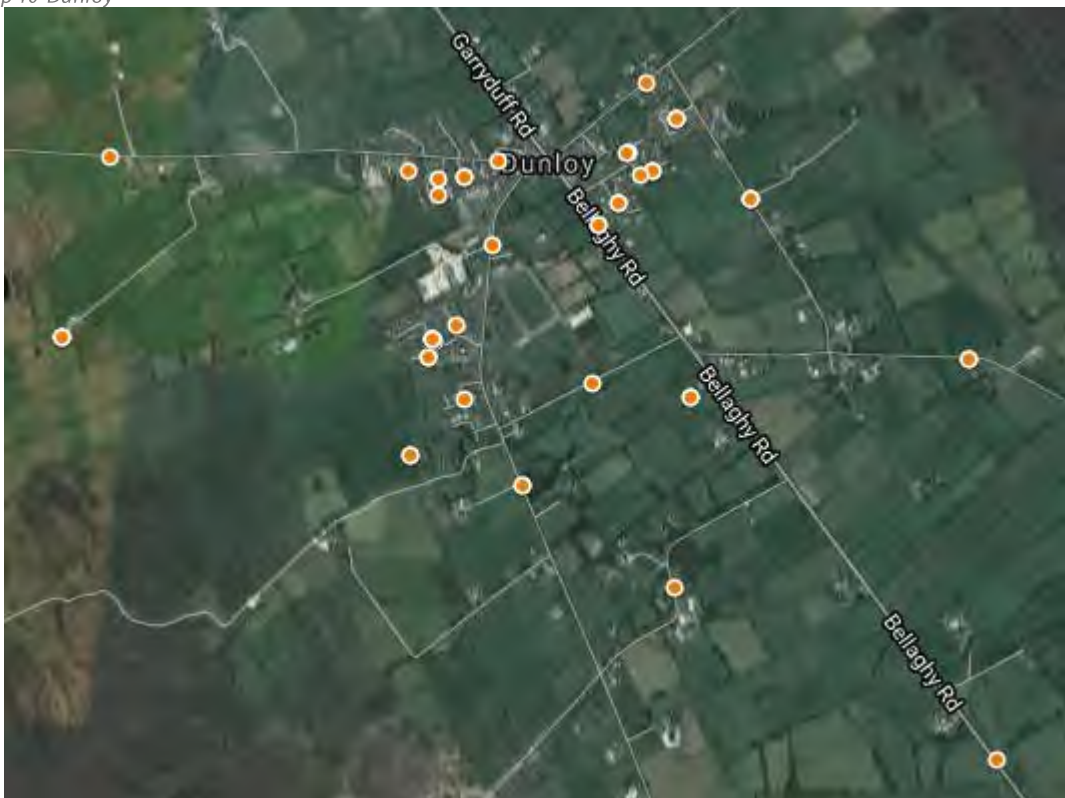




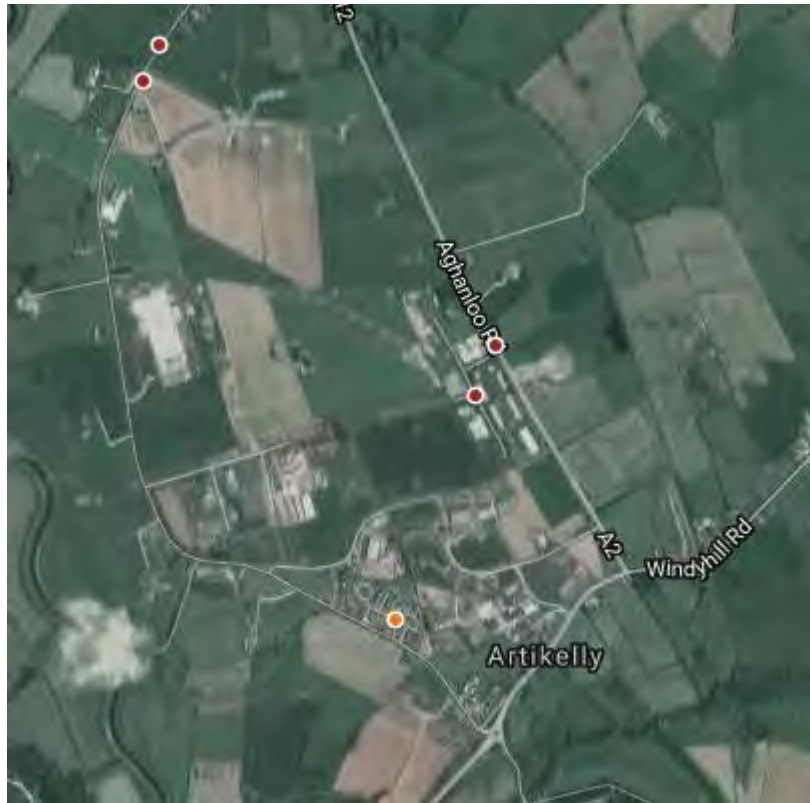
Map 9-Moyarget



Map 10-Dunloy



Map 11- Artikelly



The brief asked us to prioritise one area within each of the former council areas:

- Ballymoney
- Coleraine
- Limavady
- Moyle

Of the initial 6 areas identified based on concentration of below 10Mbps connections there was only one within the former council areas of Ballymoney and Limavady. On that basis both Dunloy and Artikelly have been selected as areas for prioritisation.

To decide between the remaining areas, we used the total number of responses from the area to gauge demand and the total number of premises identified below 10Mbps to gauge the underserved premises.

Table 6- Areas by responses

<b>Area</b>	<b>Total number of responses</b>	<b>Number of responses below 10Mbps</b>
Cashel Road Area (Coleraine)	14	13
Brockagh (Coleraine)	34	31
Knocknacarry/ Cushendun (Moyle)	6	6
Moyarget (Moyle)	8	8

From the table above we identified Brockagh as the area to prioritise within the former council area of Coleraine and Moyarget as the area to prioritise within the former council area of Moyle.

This leaves the four areas prioritised for improvement as follows

- Dunloy
- Artikelly
- Brockagh
- Moygaret