Huntly & District Development Trust

Broadband Research

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Summary

This report shows the outline of research, results and solutions to rural broadband problems. The information gathered was done through an online survey using SurveyMonkey. These results have been counted and placed into graphs along with the respondents' own personal comments on how this problem affects them.

Internet research was done on how to try and resolve slow broadband connection problems. These sources have been cited and referenced for any further individual research.

For more information on broadband in your area, please check out Digital Scotland.

Huntly & District
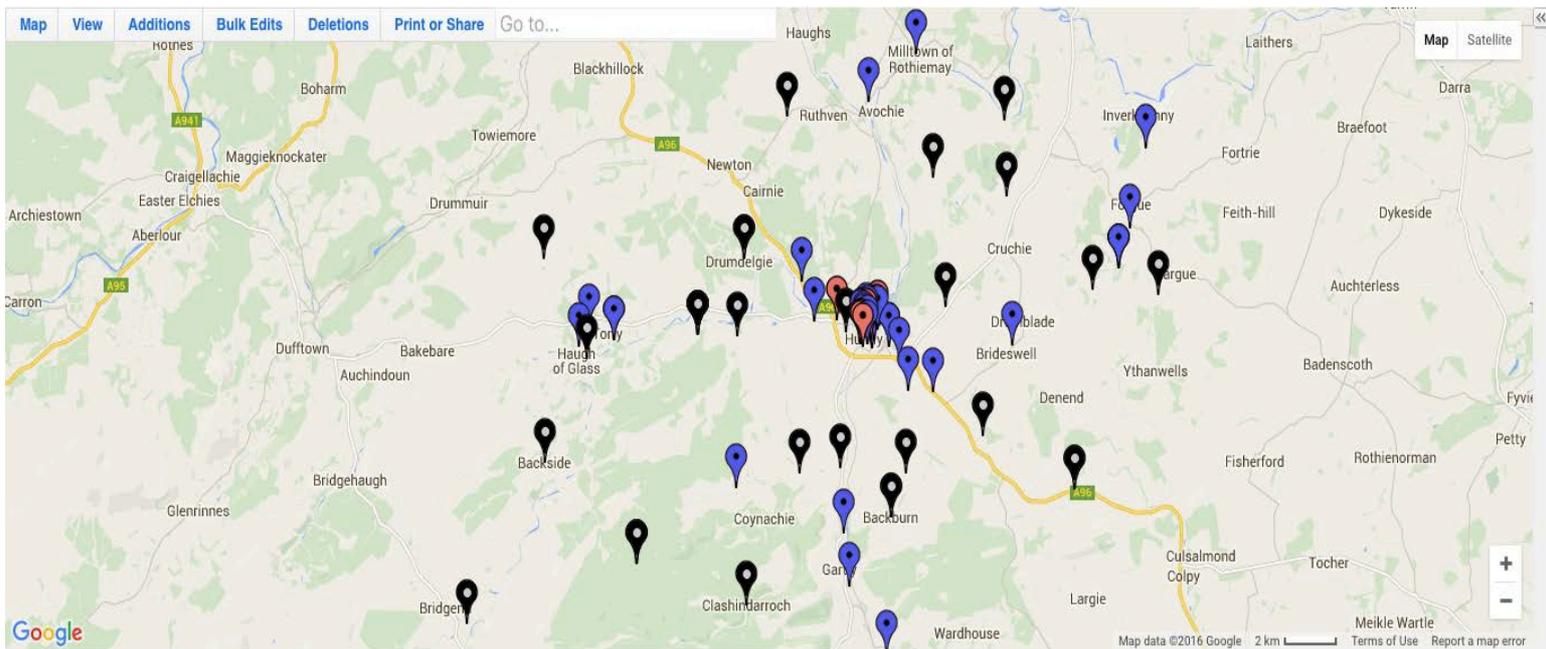
The map above shows all 91-survey respondents and their locations. Our first survey question asked all respondents to provide their postcode so that a pinpoint map could be created to show whereabouts the 'hot spots' and 'black spots' were.

The map shows three different pinpoint colours. Red, Blue and Black.

- Red – where download speeds are 20mb/s or over.
- Blue – where download speeds were between 5mb/s and 19mb/s.
- Black – where download speeds were under 5mb/s.

(Pratt 2015)

Out of the 91 respondents the results were –

- Red – 10
- Blue – 47
- Black – 34

Blue is in the lead meaning that the majority of participants are receiving between 5-19mb/s. This is scattered over a wide area, ranging from the very centre of Huntly out towards the more rural areas.

Our black spots tend to be more rural focussed, telling us that they are most likely to be at the end of the exchange line.
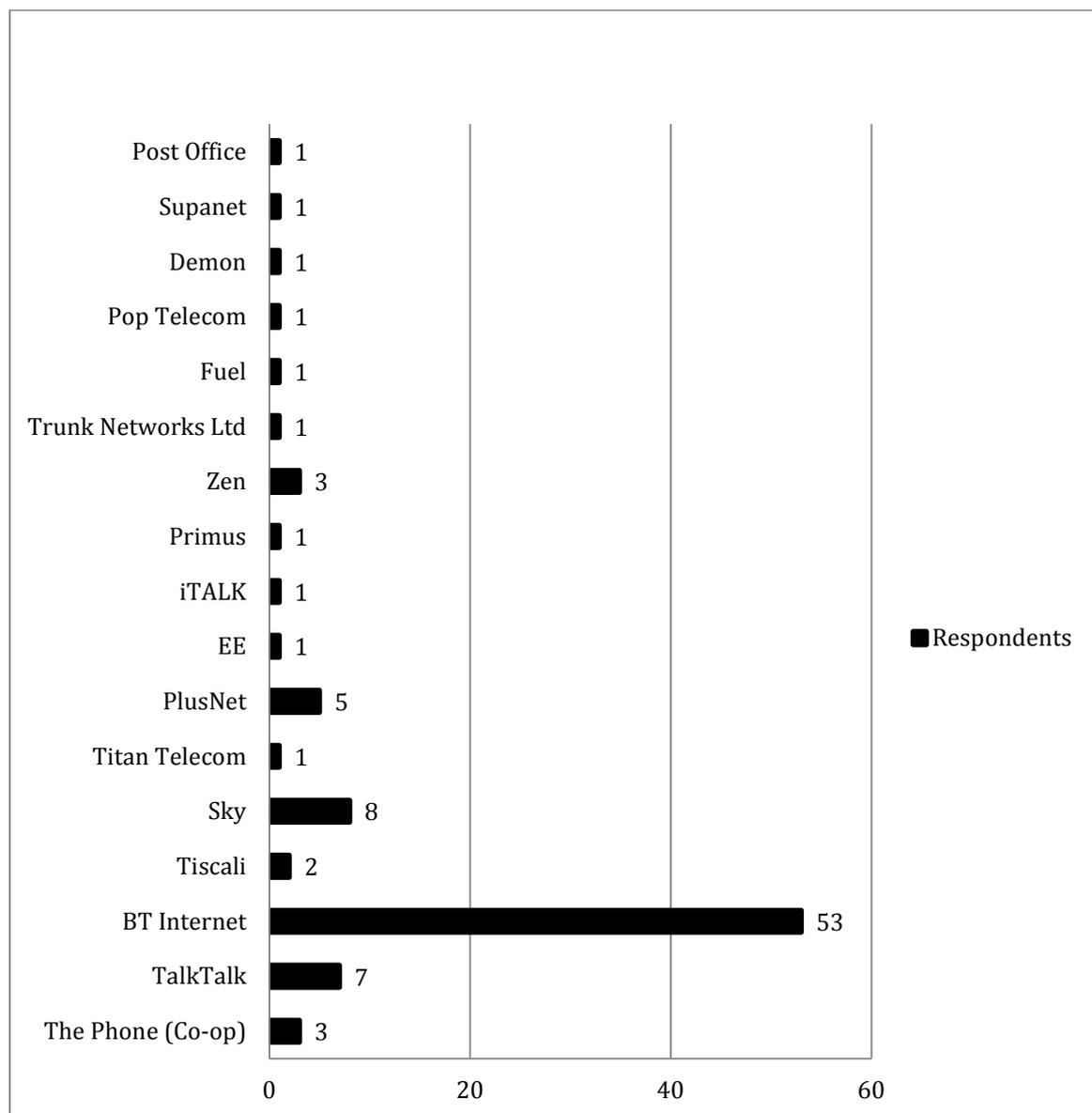
The red spots are based in the very centre of Huntly. These 10 postcodes were also checked on the Digital Scotland website where it mentioned that their area was viable for fibre broadband to some, not all, premises.

Survey Results

The survey opened on Monday 29th February and ran for several weeks. The following questions were asked –

- Please enter your postcode.
- Can you please give us the name of your broadband provider?
- Using this broadband speed checker (http://www.broadbandspeedchecker.co.uk) can you please tell us what your broadband download and upload speeds are and the time you checked.
- Are you satisfied with your broadband speed?
- Do you rely on broadband for personal or business use? If you chose business use, please explain if the broadband speed in your area affects your level of work / business income.
- How much do you rely on broadband for everyday use? 1 indicates a very low usage and 10 indicates a very high usage.
- If broadband was available at a faster rate within your area, would you be willing to pay more for it?

Can you please give us the name of your broadband provider?

Provider	Respondents
Post Office	1
Supanet	1
Demon	1
Pop Telecom	1
Fuel	1
Trunk Networks Ltd	1
Zen	3
Primus	1
iTALK	1
EE	1
PlusNet	5
Titan Telecom	1
Sky	8
Tiscali	2
BT Internet	53
TalkTalk	7
The Phone (Co-op)	3

This graph shows us all 17 broadband providers mentioned in the survey. BT Internet is the most used broadband provider with an overwhelming 53 users. In second we have Sky with 8 users, and thirdly TalkTalk with 7.

Broadband Download Speeds
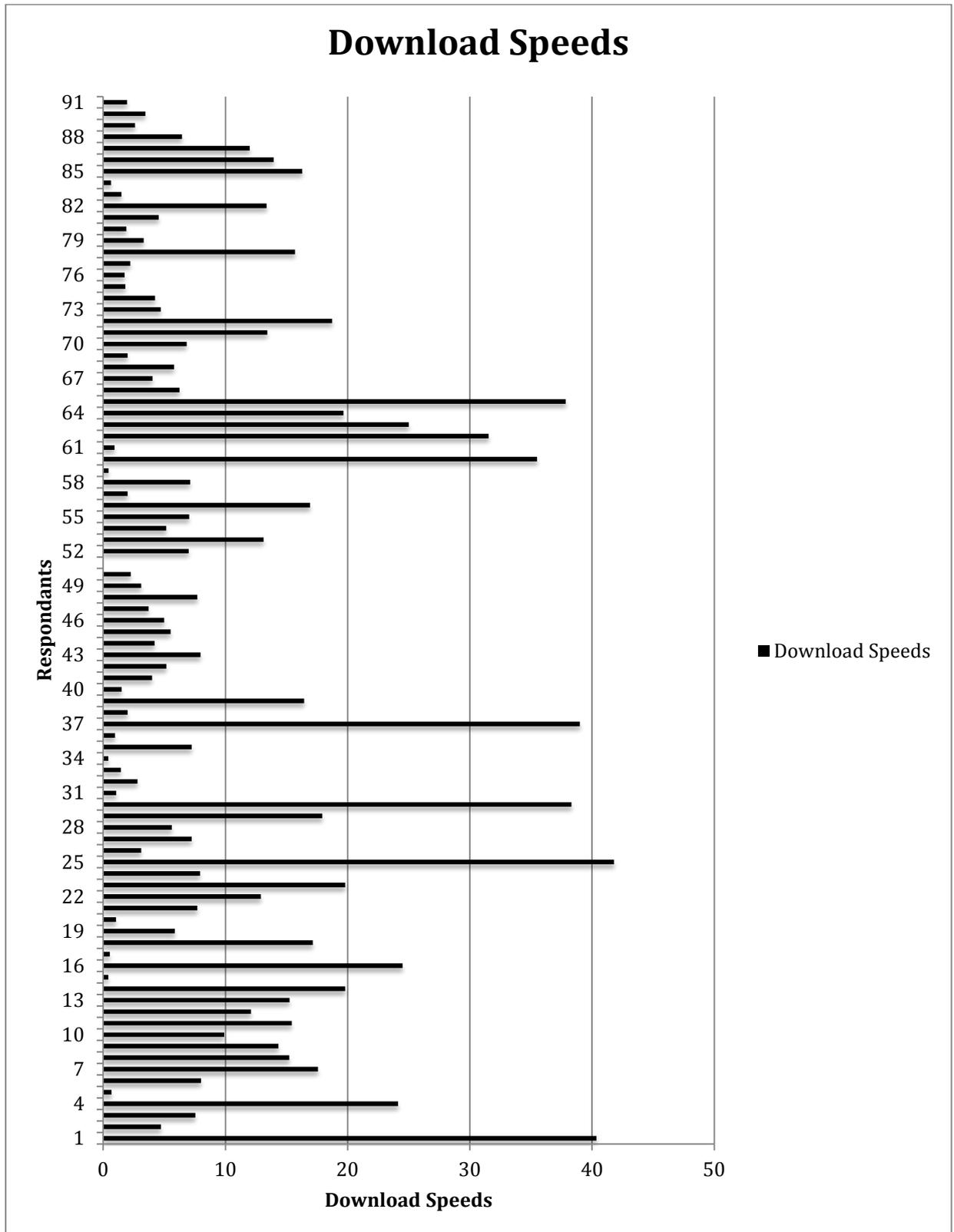
Download Speeds

The results from the download speeds varied from very fast to inadequately poor. The highest download speed from the survey was 41.8mb/s whereas the lowest was a very poor 0.41mb/s.

BT has a minimum guaranteed access line speed. This is how they measure the minimum speed within your area –

"The broadband line speed you can get will very depending on a number of actors such as how far away your home is form the local telephone exchange and the length of your line. When we look at all the customers who have a similar type of line (for example, customers who are 3km from the exchange) and the same level of service (for example, all with 'up to 8Mb broadband'), the 'Minimum Guaranteed Access Line Speed' is the fastest speed that any customer in the bottom 10 per cent of that group of customers can get. So, if there are 20,000 customers who fall into the group covered by this example, we would look at the 2,000 customers with the slowest speeds. The Minimum Guaranteed Access Line Speed would be the fastest speed that any of those 2,000 customers actually achieve.

If your line speed is significantly lower than the estimated range that we quoted when you placed your order you should contact us. We will always try to improve your line speed. If the cause of the problem is outside our control, we will endeavour to explain the possible causes to you and how you may be able to address the problem." (BT Internet)

Broadband users may be understandably confused over the use of the term 'minimum guaranteed speed'. In reality BT offer no guarantees about speed. The figure they quote of 2mb/s is in fact the best speed those with the worst service may obtain, and it is not guaranteed in respect of any individual service user.

<u>Broadband Upload Speeds</u>
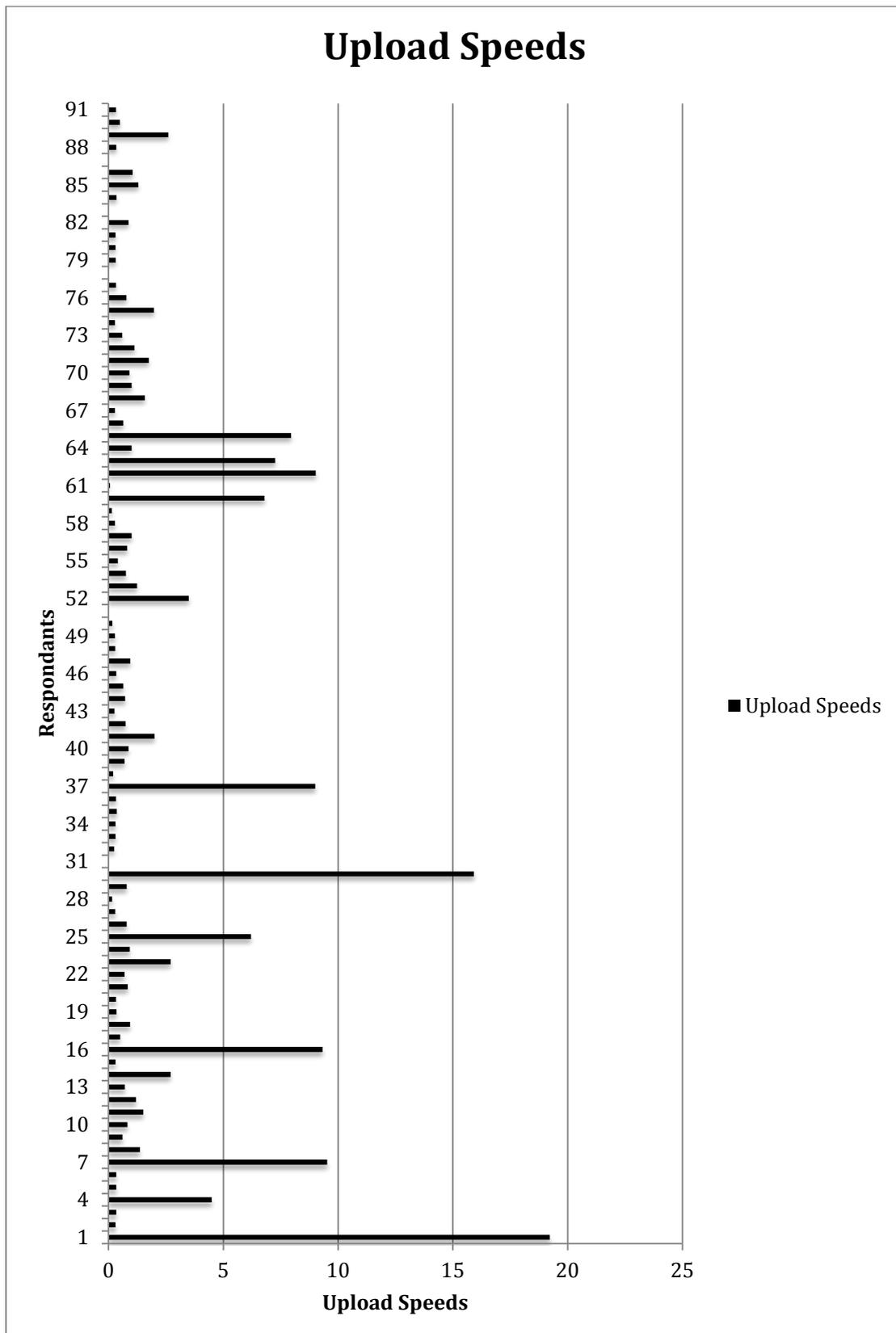
The results showed us that the highest upload speed was 19.22mb/s whereas the lowest was a very poor 0.07mb/s.

Are you satisfied with your broadband speed? (Comments)
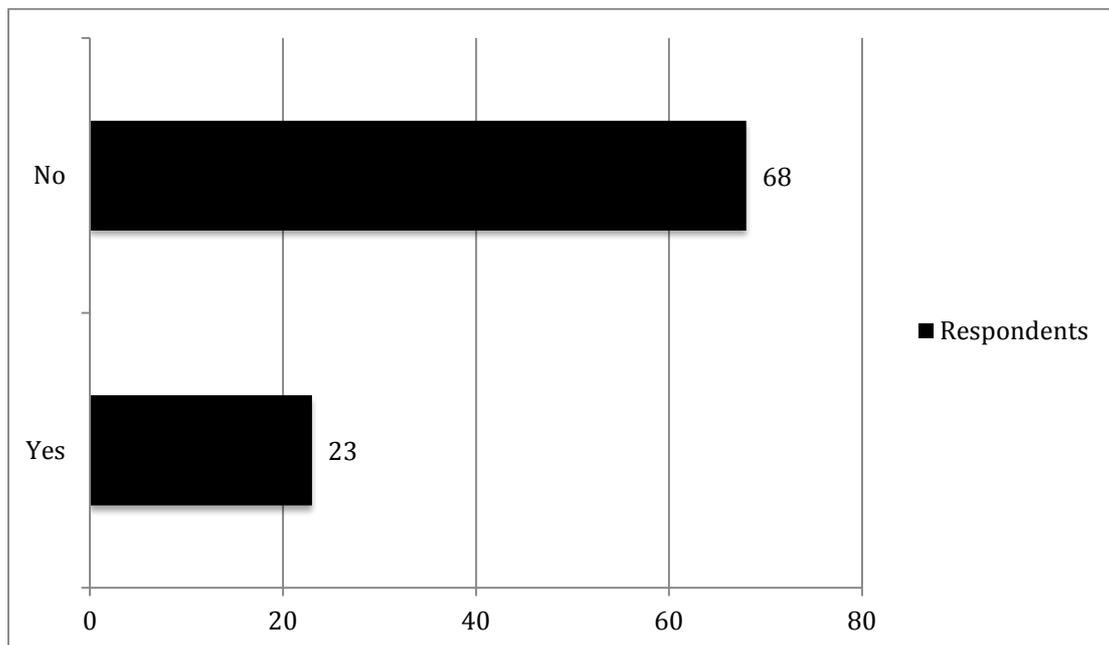
The results show an overwhelming 'No' vote towards the broadband speed satisfaction question with 68 out of 91 respondent saying that they were not happy with their broadband speed.

Lots of comments were made on how the broadband speed is affecting everyday living and work use.

"Once everyone is home from school and work it is hardly worth trying to use broadband weekends are dire. Schools expect homework and study to be done using online tools but this is nigh on impossible with the level of broadband access available. Children living in rural areas are seriously disadvantaged now with lack of or painfully slow broadband."

"Absolutely useless but we still get charged same rates as others in urban areas!"

"I would love to see us able to stream a TV show and be on email at the same time."

"Seems we are paying for all the big cities and town to have fast speed, while we in the countryside get the bare minimum."

"Too slow. Our family depends on the Internet for our work. Too much time wasted waiting for pages to load."

Even though the majority of comments were emphasising the lack of speed from their broadband, the other 23 respondents were overall satisfied with the broadband speed they were receiving.

"Obviously I would like a fast speed but given that we live in a very rural area served by copper wire I think this is a pretty good speed. Of course I would really like access to fibre broadband."

"It's sufficient for my purposes."

"It is better than what it used to be, and I've never known better!"

"Satisfied but could improve."

"I was previously with a Madasafish subsidiary, but moved to PlusNet when they took over. Service has been good so far – no complaints."

Do you rely on broadband for personal or business use? If you chose business use, please explain if the broadband speed in your area affects your level of work / business income.
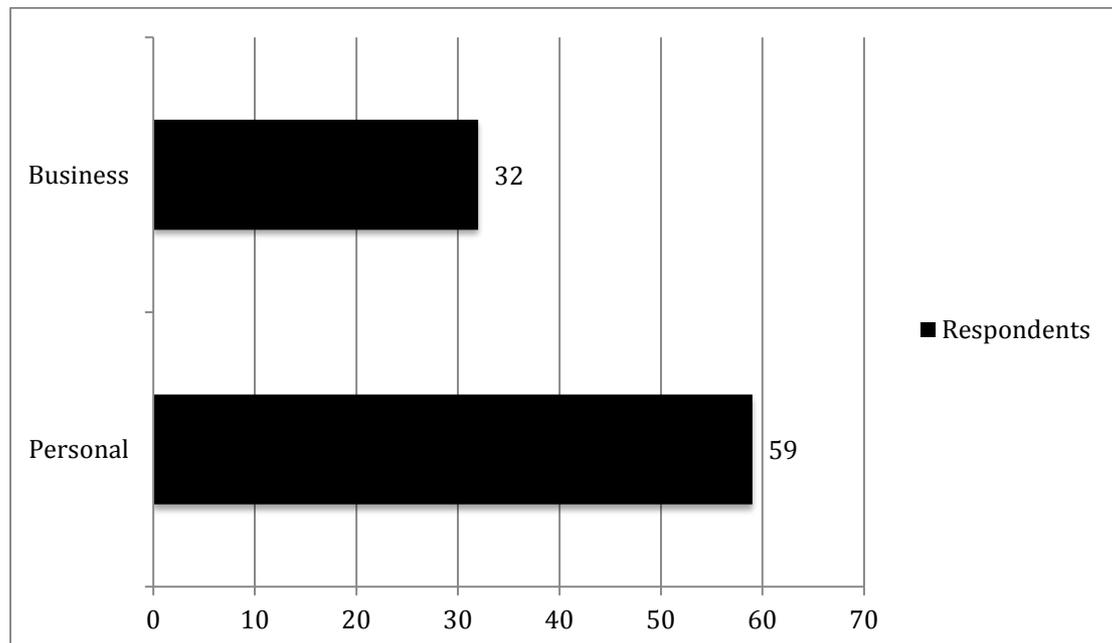
The majority of respondents use their broadband for personal use but after reading through all the comments a lot of people mentioned that they used their broadband for both personal and business use.

"I rely on broadband everyday at work, it's very frustrating when you're in a rush and the connection decides to go on a go-slow! The broadband doesn't affect the business income, it just wastes time, things take much longer to do when the broadband is slow."

"I use broadband for personal use but also to access my work emails and to do research in connection with my work."

"Broadband is used for both personal and business use. However, broadband is necessary to run a business from the property by one of use and to allow the other to work from home at times. Broadband speed probably does not effect business income but it makes it less efficient."

"I work from home and on occasion have to head into Huntly to work if the broadband gets too slow."

"We need broadband for personal and work use. We are farmers who need to use it for downloading information, checking mart websites etc."

<u>How much do you rely on broadband for everyday use? 1 indicates a very low usage and 10 indicates a very high usage.</u>
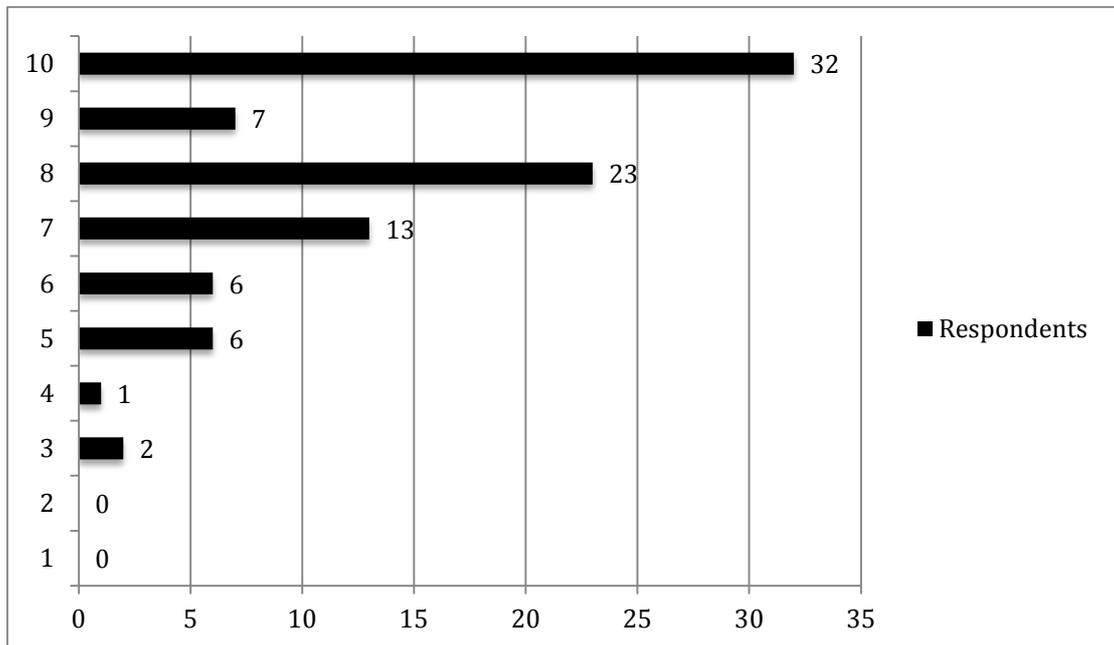
From the graph we can see that the majority of respondents rely on broadband for everyday use, whether this be for personal or business use.

Respondents said –

"We need broadband to function properly in our everyday lives but it is just not available as it should be."

"Use it everyday. Personal use: checking email, finding out information. Business: everyday for my lessons and same for husband."

"Broadband is the only realistic way for the business to receive and send emails, and to download documents."

"Very slow. Can't download anything film-wise etc. YouTube download takes at least twice as long as length of subject film."

"Important for business use, use it for 4-5 hours a day."

"Today broadband is part of everyday life and is essential for those who live in rural or isolated areas."

<u>If broadband was available at a faster rate within your area, would you be willing to pay more for it?</u>
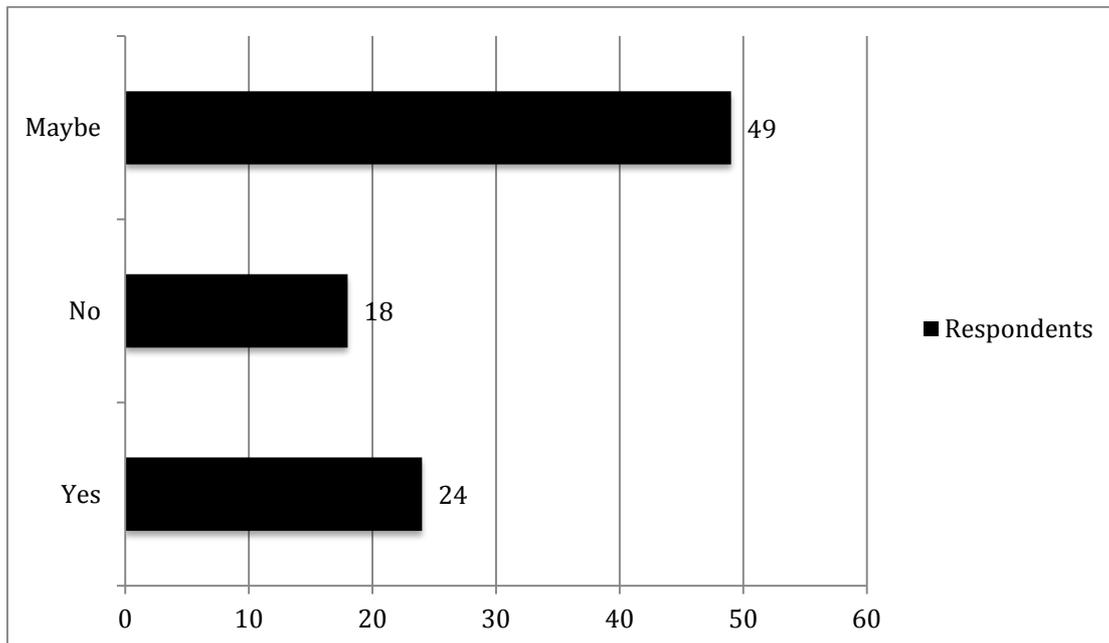
The majority of respondents answered 'Maybe' to paying extra towards a better broadband speed. This was followed by a lot of comments stating that it would depend on the speed and reliability.

"Depending on the rate available, I believe we pay enough to BT for landline phone, two mobile phones plus Internet access."

"Depend on cost and how much better a speed would be achieved."

"I don't feel I need a faster rate so would not want to pay more – but I recognise that for the greater good of the local community/economy. I may have to and would therefore do so if required!"

"I think we should be getting much better service from our existing subscription and improvement should come without significantly higher costs. As mobile phone connection speeds improve there is an increasing tendency to use mobile devices as alternative means of connection."

Others were against paying more.

"We are already paying the same as those who receive a far better service. Why would we pay more?"

Definitely not, we are paying the same rates as people in town and other areas who are benefiting from fibre broadband and high speeds."

Others were very open to paying more for a faster speed.

"It would be a luxury to be able to rely on BBC i-Player."

"Would happily upgrade to fibre or cable if either became available."

"We are connected to the Cairnie exchange which is, according to Digital Scotland, being enabled for fibre. Since all of the connections to this exchange are 'Exchange Only'* lines this seems fruitless as BT currently offer no solution for users to get fibre with this type of connection. I would happily pay for FTTP* providing it was a reasonable price and provided a fast and reliable connection."

*FTTP – Fibre to the Premises. A fibre optic cable connection directly from the Internet service provider to the home or business.

*Exchange Only – Where the telephone line connects directly to the local telephone exchange.

Digital Scotland – Superfast Broadband

It is said that by the year 2020, Scotland will become a world-class digital nation; this will be done through the Digital Scotland Superfast Broadband Programme. One of their main objectives is to have 95% of premises in Scotland accessing fibre broadband by the end of March 2018.

However, 5% of Scotland will not be part of this programme's rollout due to technical challenges and budget restrictions. This does not mean that they won't be receiving superfast broadband but it may take slightly longer than the year 2020. The Scottish Government have been overseeing the Community Broadband Scotland Initiative (CBS) who are working closely with rural areas to provide broadband projects to the final 5%.

The UK Government have set a target that all homes and businesses who have access to broadband should be receiving at least 2mb/s. If this isn't the case Broadband Delivery UK (BDUK) has set aside a programme, which offers subsidised satellite broadband installation to those who are eligible. This is currently available and anyone who thinks they may be eligible should apply online at Digital Scotland. Successful applicants will need to sign up to a 12 month contract but will receive up to £350 off the installation price. A typical satellite installation can cost anywhere form £750 to £1,000, with monthly payment fees ranging from £20 to £30.

Digital Scotland also provide a map of Scotland which shows what areas are currently eligible for superfast broadband and others that aren't.
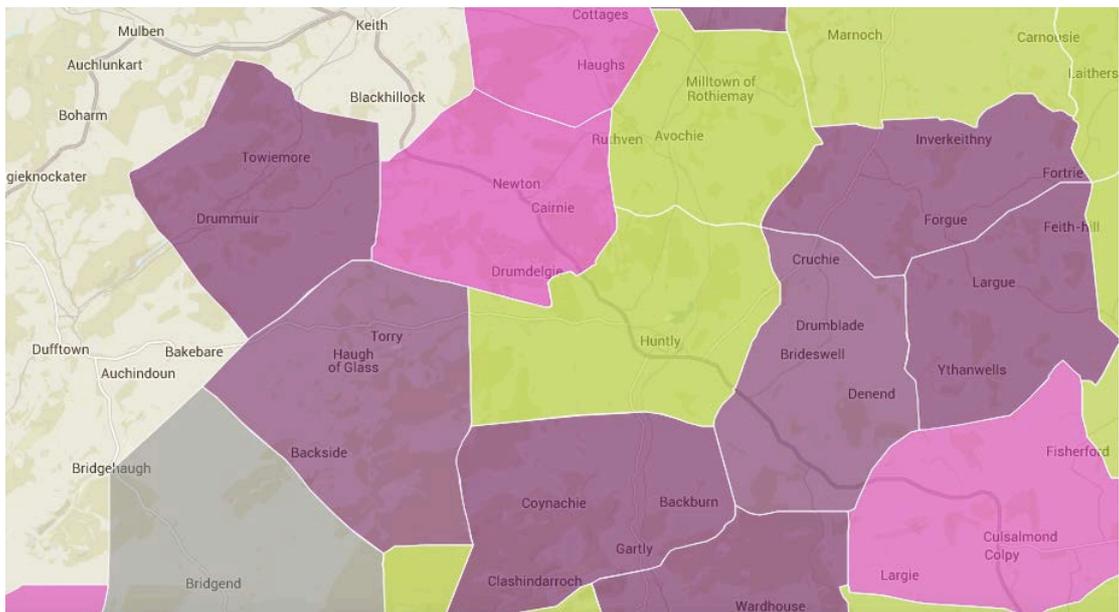
Green Areas – Fibre broadband is available but only to some premises. This area is enabled in the period of January to June 2016.
Pink Areas – Fibre broadband is not available in this area. It is expected that by the end of June 2016 is when the first premises within this area will start to receive superfast broadband.

Purple Areas – Fibre broadband is not available in this area. It will be between January and June 2017 before the first premises within this area will start to receive superfast broadband. However, not all premises will get it.

Grey Areas – Fibre broadband is not available in this area. There is no set date as to when this area will have superfast broadband, Digital Scotland are evaluating their options.

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Possible Solutions

The following information offers possible solutions on how to speed up broadband in rural areas.

- Look up other suppliers. They may be able to offer a faster speed at a cheaper rate.

- Check the distance between your device and broadband router. A distance of 2 meters is recommended, walls, ceilings and door will affect the speed too.

- Make sure that your device is up-to date with the latest software and anti-virus protection.

- If your wireless router is only used for your computer, you may want to consider connecting the computer to the router directly using a network cable. Having a direct line from your computer to your router may increase the speed of you Internet connection.

- Make sure your Wi-Fi has a password so that no one else can connect to your line.

- Electrical interference may slow down broadband speed. It is best to keep the broadband router away from mains power cables.

- Use a third party DNS (Domain Name System/Server). DNS servers are required to convert domain names (which are understandable names of websites such as Google, Yahoo etc.) to IP addresses (which are necessary for your device to download a webpage). For more information on this and how to change your DNS please check http://www.increasebroadbandspeed.co.uk/2015/speed-up-dns-lookups.

- Satellite broadband, although expensive it can provide fast broadband speeds to rural areas. Digital Scotland is currently offering up to £350 off satellite broadband installation if the resident is receiving under 2mb/s. This is available now; residents who fall into this category should apply online at Digital Scotland. This is a list of all the current satellite broadband providers under the scheme –

www.ibub.co.uk/satellitescheme/
www.europasat.com/lp/bduk-national/
www.broadbandwherever.net/BDUK
www.primetech-bduk.co.uk
www.digiweb.com/satellite/
www.avonlinebroadband.com/
www.corsat.co.uk/bduk/
www.ruralbroadband.co.uk/bduk
www.notspotbroadband.com/grant-schemes/
www.marchesmedia.co.uk/rural-broadband/satellite-broadband-subsidy/

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Digital Scotland. (2016). *Digital Scotland Super Fast Broadband.* Available: http://www.scotlandsuperfast.com. Last accessed 6th April 2016.

Langston, H. (2015). *Rural Broadband The Key Issues and Potential Solutions.* Available: https://www.cable.co.uk/guides/rural-broadband/. Last accessed 7th April 2016.

Pitch Up. (2013). *Improve your rural broadband speed.* Available: https://www.pitchup.com/improve-rural-broadband-speed/. Last accessed 7th April 2016.

Pratt, K. (2015). *Broadband Speed Guide.* Available: http://www.moneysupermarket.com/broadband/speed/. Last accessed 6th April 2016.

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U Switch. (2016). *What is ADSL.* Available: http://www.uswitch.com/broadband/guides/quick_guide_to_adsl/. Last accessed 7th April 2016.

U Switch. (2016). *What is local loop unbundling (LLU).* Available: http://www.uswitch.com/broadband/guides/what_is_llu/. Last accessed 7th April 2016.