### UTILITIES

#### Information and Evidence provided by Peter Seaton

#### Introduction

The supply of utilities- water, surface water drainage, sewage, gas, electricity, telephone landlines, broadband and digital signals is essential for a community not only to thrive and grow in the twenty-first century but also to encourage the development of new business. It is likely that these services may need to be upgraded to improve the services for the present residents as well as supply the new developments. However residents' tolerance to delays and disruption is limited and therefor these must be well managed and sensitively handled.

A letter from Thames Water – more details below - states that 'It *is essential that developers demonstrate that adequate water supply and sewerage infrastructure capacity exists both on and off the site to serve the development and that it would not lead to problems for existing users.*' Although, no similar level of detail was provided by the other organisations, it is clear that major investments required with the biggest potential impact on the community in terms of work carried out will be on the sewage network.

Survey One showed that there was already a high level of dissatisfaction with mobile phone signals (53.58% Q31) and Broadband (33% Q 30). Surface water and sewage treatment was also of concern. (16.7% Q27). Although the percentage dissatisfaction was low for the water supply (8% Q26), electricity supply (8% Q29) and gas supply (2% Q28), these are essential services on which the community relies and that need regular attention. Eleven comments from survey 2 Q60 show concerns about the stresses and strains on the infrastructure.

It should be noted, and this point was made in the responses, that Utility Companies have a statutory obligation to provide services, but the costs involved are a matter of negotiation with the individual developers.

#### Contact with Utilities Stakeholders for Evidence Gathering.

A questionnaire(attached) was sent in September 2014 to: Thames Water EA (Surface water) UK Power Network Scotia Gas Networks BT (SuperfastSurrey)

One detailed response only was has been received from Thames Water in November 2014 as shown in Appendix 2. WBC were then approached to help in obtaining information and provided emails of their contact with the utilities companies. No information has been provided by the EA.

#### Water Supply and Sewerage Treatment.

Thames Water addressed each of the sites where, at the time of the questionnaire, developers were proposing to build houses. Thames Water highlighted capacity issues with water supply and sewerage infrastructure and the need for investment in the sewerage treatment works to meet future demands from the housing developments being considered. This investment would be completed in a timescale of 3-5 years. For this reason, Thames Water asked the following statement to be included in the Neighbourhood Plan.

#### "Water Supply & Sewerage Infrastructure

It is essential that developers demonstrate that adequate water supply and sewerage infrastructure capacity exists both on and off the site to serve the development and that it would not lead to problems for existing users. In some circumstances, this may make it necessary for developers to carry out appropriate studies to ascertain whether the proposed development will lead to overloading of existing water & sewerage infrastructure. Where there is a capacity problem and no improvements are programmed by the water company, then the developer needs to contact the water company to agree what improvements are required and how they will be funded prior to any occupation of the development.

*Further information for Developers on water/sewerage infrastructure can be found on Thames Water's website at:* 

http://www.thameswater.co.uk/home/11425.htm

Alternatively, contact can be made with Thames Water Developer Services

By post at: Thames Water Developer Services, Reading Mailroom, Rose Kiln Court, Rose Kiln Lane, Reading RG2 OBY;

By telephone on: 0845 850 2777;

Or by email: <u>developer.services@thameswater.co.uk</u>"

In the WBC Infrastructure Plan dated August 2012, two projects to improve the Cranleigh sewage works are identified but not costed.

#### Telephone and Broadband.

BT have been in contact by email – Appendix 3 – to say that Openreach are keen to ensure that all housing development sites over 100 premises are registered for future-proofed fibre services. To ensure a comprehensive and resilient local plan, BT said that it would need a" New Sites/Developments" lead manager engaged from Openreach and the team from Surrey CC to work together.

#### Electricity

UK Power Networks did not respond directly to the questionnaire but Waverley Borough Council has provided emails of their own contacts concerning development of the WBC Local Plan which is summarised below.

Quote

"I have reviewed the documentation and I have no concerns regarding our existing network capacity or the ability of UK Power Networks to undertake infrastructure reinforcement (if required) in a timely manner to support your development proposals.

A key variable is the energy efficiency of the new housing units. Developers are often challenged to achieve a balance between capital cost, hence affordability, and longer term running costs of the home influenced by insulation levels, renewable energy provision such as solar panels and the choice between gas and electric heating. When multiplied across 8,500 units this could have a significant influence on the overall demand increase.

Your background information correctly identified that UK Power Networks operate two primary substations within your area at Cranleigh and Shalford with the remainder supplied by SSE Power Distribution.

Whereas there is adequate capacity headroom at Cranleigh. Our planning forecasts identify that Shalford will be approaching within 10% of the existing firm capacity by 2024. Any reinforcement at these locations could be contained within the existing footprint with the possible exception of temporary lay-down areas for material storage. Although outside my area of responsibly I understand that the connections charging policy followed by all DNO (distribution network operators) requires new customers to be responsible for the cost of reinforcement associated with their new demand. This could either be the total cost or an apportionment depending on the specific factors of the connection application.

The Dunsfold site lies close to the operational boundary between UK Power Networks and SSE Power Distribution. If this site is developed a sensible approach would be for our two electricity companies to coordinate our activities to deliver the most economical solution."

#### Unquote

In the WBC Infrastructure Plan dated August 2012, investments to improve the Network - 33kv overhead line and substation are identified and costed.

#### Gas Network

Southern Gas Networks did not respond directly to the questionnaire but Waverley Borough Council has provided emails of their own contacts concerning development of the WBC Local Plan, which is summarised below.

Quote

"SGN will take full recognition of the information contained in the proposed Scenarios document when planning the design and operation of our gas networks around the Waverley Borough Council area.

While information obtained through the provision of Local Authority Development Plans is important to us, it only acts to identify potential development areas. Our principle relevant statutory obligations relevant to the development of our gas network, arise from the Gas Act 1986 (as amended).

We would not therefore develop firm extension or reinforcement proposals until we are in receipt of confirmed developer requests.

As SGN is the owner and operator of significant gas infrastructure within the Waverley Borough Council area, and due to the nature of our license holder obligations;

- Should alterations to existing assets be required to allow development to proceed, then the alterations will require to be funded by a developer.
- Should major alterations or diversions to such infrastructure be required to allow development to proceed this could have a significant time constraint on development and as such, any diversion requirements should be established early in the detailed planning process. We would therefore request that where the Council are in discussions with developers, via the Local Plan or the above forum, these early notification requirements are highlighted." Unquote

#### Appendix 4.3 – Questionnaire sent to Utility Companies in September 2014 <u>CRANLEIGH PARISH NEIGHBOURHOOD PLAN – INFRASTRUCTURE (UTILITIES)</u> INTRODUCTION

Waverley Borough Council has issued a consultative document showing a number of scenarios for the WBC Local Plan. In the case of Cranleigh, these scenarios cover a range of new homes to meet housing needs from 300 to 1450 over the period from 2013 to 2031. For the purposes of this questionnaire, we have taken Scenario 2 which is based on 1200 new homes.

This questionnaire is being sent to the Utility Companies shown below:

- Thames Water water supply, water treatment and drainage
- EA surface water run off
- UK Power Network electricity supply and local distribution
- BG gas supply and local distribution
- BT (SuperfastSurrey) local network

to determine what capacity constraints, if any, there are in local systems to accommodate new homes proposed for Cranleigh in the WBC Local Plan. We are looking for assurances that you are aware of and are planning for the new homes planned for Cranleigh as this could affect our Neighbourhood Plan. We have no information on the proposed timing but we are aware of developers' proposals for new housing developments listed below. Some of these – Berkeley Homes and Amlets Lane - have submitted a planning application at the time of preparing this letter. We have provided website addresses where you can find more information on the proposed developments

- Berkeley Homes 425houses <u>www.visionforcranleigh.co.uk</u>
- Amlets Lane 125 houses L&P Ltd www.amlets-park.com
- Knowle Park initiative 265 houses www.knowleparkinitiative.co.uk
- Horsham Road age- exclusive apartments 19 apts. Ortus Homes
- Horsham Road 149 houses. Crest Nicholson www.horshamroad.cratus.co.uk
- Hewitts Industrial Estate 120 houses Threadneedle Investments. www.hewittsindustrialestate-consultation.co.uk

#### QUESTIONS

- 1. Can your existing infrastructure in the Cranleigh area cope with the proposed increase in housing without improvement to your infrastructure?
- 2. If improvements to your infrastructure will be needed, have you already started to plan for them, including the investment involved?
- 3. Will the proposed number of new homes mean you will have to lay larger higher capacity pipes/sewers/cables in the Cranleigh area?
- 4. Are there any locations in the proposed list of developments where it will be particularly problematic to provide a service connection, for example a lengthy disruption to road traffic?
- 5. Are there any other comments you want to make about infrastructure issues in the Cranleigh area

I would like to thank you for your help.

Peter Seaton – Infrastructure and Community Working Group

#### Appendix 4.52 – Response from Thames Water Planning Policy

#### Thames Water Utilities Ltd



Sent by email: planningpolicy@waverley.gov.uk

Contact David Wilson Phone 0118 952 0505 E-Mail thameswaterplanningpolicy@savills.com

Date XXXXXXX

Dear Sir/Madam

# Re: WAVERLEY- CRANLEIGH NEIGHBOURHOOD PLAN INFRASTRUCTURE QUESTIONNAIRE (UTILITIES)

Thank you for allowing Thames Water Utilities Ltd (Thames Water) to comment on the above. The provision of water and wastewater infrastructure is essential to any development.

Thames Water is the statutory wastewater/sewerage and water provider for the Cranleigh area and we have the following comments on the questionnaire to utility companies:

#### General Comments on Sewerage/Wastewater Infrastructure

New development should be co-ordinated with the infrastructure it demands and to take into account the capacity of existing infrastructure. Paragraph 156 of the National Planning Policy Framework (NPPF), March 2012, states: "Local planning authorities should set out strategic policies for the area in the Local Plan. This should include strategic policies to deliver:.....the provision of infrastructure for water supply and wastewater...."

Paragraph 162 of the NPPF relates to infrastructure and states: "Local planning authorities should work with other authorities to: assess the quality and capacity of infrastructure for water supply and wastewater and its treatment.....take account of the need for strategic infrastructure including nationally significant infrastructure within their areas."

The new web based National Planning Practice Guidance (NPPG) published in March 2014 includes a section on 'water supply, wastewater and water quality' and sets out that Local Plans should be the focus for ensuring that investment plans of water and sewerage/wastewater companies align with development needs. The introduction to this section also sets out that "Adequate water and wastewater infrastructure is needed to support sustainable development" (Paragraph: 001, Reference ID: 34-001-20140306).

It is therefore important that developers demonstrate that adequate capacity exists both on and off the site to serve the development and that it would not lead to problems for existing users. In some circumstances this may make it necessary for developers to carry out appropriate studies to ascertain whether the proposed development will lead to overloading of existing water & wastewater/sewerage infrastructure. Where there is a capacity problem and no improvements are programmed, then the developer needs to contact the water company to agree what improvements are required and how they will be funded prior to any occupation of the development.

It is therefore important that the Neighbourhood Plan considers the net increase in water and wastewater/sewerage demand to serve proposed developments and also any impact the development may have off site further down the network, if no/low water pressure and internal/external sewage flooding of property is to be avoided.

Thames Water therefore recommends that developers engage with them at the earliest opportunity to establish the following:

•The developments demand for water supply and network infrastructure both on and off site and can it be met

•The developments demand for sewage/wastewater treatment and network infrastructure both on and off site and can it be met

•The surface water drainage requirements and flood risk of the development both on and off site and can it be met

To accord with the NPPF and the above, text along the lines of the following should be added to the Neighbourhood Plan:

#### "Water Supply & Sewerage Infrastructure

It is essential that developers demonstrate that adequate water supply and sewerage infrastructure capacity exists both on and off the site to serve the development and that it would not lead to problems for existing users. In some circumstances this may make it necessary for developers to carry out appropriate studies to ascertain whether the proposed development will lead to overloading of existing water & sewerage infrastructure. Where there is a capacity problem and no improvements are programmed by the water company, then the developer needs to contact the water company to agree what improvements are required and how they will be funded prior to any occupation of the development.

*Further information for Developers on water/sewerage infrastructure can be found on Thames Water's website at:* 

http://www.thameswater.co.uk/home/11425.htm

Or contact can be made with Thames Water Developer Services By post at: Thames Water Developer Services, Reading Mailroom, Rose Kiln Court, Rose Kiln Lane, Reading RG2 0BY; By telephone on: 0845 850 2777; Or by email: <u>developer.services@thameswater.co.uk</u>"

As part of our five year business plan Thames Water advise OFWAT on the funding required to accommodate growth at all our water supply and sewage/wastewater treatment works. As a result we base our investment programmes on development plan allocations which form the clearest picture of the shape of the community as set out in the National Planning Policy Framework (paragraph 162) and the National Planning Practice Guidance.

The time to deliver solutions should not be underestimated. For example, local network upgrades take around 18 months and sewage treatment works upgrades can take 3-5 years.

In general terms, Thames Water's preferred approach for growth is for a small number of large clearly defined sites to be delivered rather than a large number of smaller sites as this would simplify the delivery of any necessary sewerage/wastewater infrastructure upgrades.

As a general comment, the impact of brownfield sites on the local sewerage treatment works is less than the impact of greenfield sites. This is due to the existence of historical flows from brownfield sites, as opposed to greenfield sites that have not previously been drained. The necessary infrastructure may already be in place for brownfield development. We would therefore generally support the use of brownfield sites before greenfield sites. We also wish to highlight the opportunity to introduce sustainable urban drainage systems into brownfield development to reduce surface water flows into the sewers. It is important to maximise capacity in the sewers for foul sewage thus reducing the risk of sewer flooding.

Where development is being proposed within 15 metres of a sewage pumping station, the developer or local authority should liaise with Thames Water to consider whether an odour and / or noise and / or vibration impact assessment is required as part of the promotion of the site and potential planning application submission. Any impact assessment would determine whether the proposed development would result in adverse amenity impact for new occupiers, as those new occupiers would be located in closer proximity to a pumping station.

Where development is being proposed within 800 metres of a sewage/wastewater treatment works, the developer or local authority should liaise with Thames Water to consider whether an odour impact assessment is required as part of the promotion of the site and potential planning application submission. The odour impact assessment would determine whether the proposed development would result in adverse amenity impact for new occupiers, as those new occupiers would be located in closer proximity to a sewage treatment works.

#### Specific Sewerage/Wastewater Comments:

#### 1200 new dwellings in the Cranleigh Catchment (Overview):

We have concerns regarding wastewater infrastructure services in relation to this level of growth. Specifically wastewater/sewage treatment capacity in this area is unlikely to be able to support the demand anticipated from this development. It is likely that wastewater/sewage treatment upgrades will be required.

There may also be local incapacities but due to the complexities of the sewerage network and the uncertainties around the exact locations of development, their scale and phasing it is difficult for Thames Water to accurately identify the infrastructure needs at this time.

#### Site specific:

-Berkeley Homes – 425 houses - On the information available to date we do not envisage infrastructure concerns regarding wastewater capability in relation to this site.

-Amlets Lane – 125 houses - We have concerns regarding wastewater Services in relation to this site. Specifically, the sewerage network capacity in this area is unlikely to be able to support the demand anticipated from this development. It will be necessary investigations to be undertaken into the impact of the development and completion of this, on average, takes 12 weeks. It should be noted that in the event of an upgrade to our assets being required, up to three years lead in time will be necessary. Hence the need for the above *'Water Supply & Sewerage Infrastructure'* text to be included in the Neighbourhood Plan.

-Knowle Park Initiative - 265 houses - On the information available to date we do not envisage infrastructure concerns regarding wastewater capability in relation to this site.

-Horsham Road – 19 Apartments - On the information available to date we do not envisage infrastructure concerns regarding Wastewater capability in relation to this site.

-Horsham Road – 149 houses. - We have concerns regarding wastewater infrastructure services in relation to this site. Specifically, the sewerage network capacity in this area is unlikely to be able to support the demand anticipated from this development. It will be necessary for investigations to be undertaken into the impact of the development and completion of this, on average, takes 12 weeks. It should be noted that in the event of an upgrade to our assets being required, up to three years lead in time will be necessary. Hence the need for the above *'Water Supply & Sewerage Infrastructure'* text to be included in the Neighbourhood Plan.

-Hewitts Industrial Estate - 145 houses Threadneedle Investments - On the information available to date we do not envisage infrastructure concerns regarding Wastewater capability in relation to this site.

#### Specific Water Supply Infrastructure Comments:

General comments:

As far as the proposed developments are concerned, none provide major issues in terms of water infrastructure provision, subject to new infrastructure being provided. The preference would be to build to the North of Cranleigh (Amlets Lane) but none of the 6 locations will be unsupportable. The Berkley Homes development could cause the largest issue in terms of providing a connection, as the supporting infrastructure may need to connect into mains within Cranleigh itself. There may be an option to connect this development into a different system to the West (due to its proximity to our Ashlands zone) but modelling will need to be undertaken to confirm this. In the past, we have also undertaken a study with the developer for the Berkley site. This has highlighted a need for a local reinforcement main (not strategic) to support this site, likely to be a couple of kilometres of 300mm main, but this would require reviewing/updating.

Response to specific questions in relation to water supply:

- Can your existing infrastructure in the Cranleigh area cope with the proposed increase in housing without improvement to your infrastructure? It is unlikely that we will be able to support this level of growth in the Cranleigh area with existing strategic infrastructure. The necessary strategic infrastructure upgrade will most likely be to pump improvements at our Netley Mill Water Treatment Works, with possibly some main laying close to the site. Design for this upgrade is currently underway with construction due to commence in 2015. There is also likely to be a requirement to improve the transfer capability from our water treatment works at Netley to our Hurtwood reservoir.
- If improvements to your infrastructure will be needed, have you already started to plan for them, including the investment involved? We are currently reviewing options for the above upgrade, planning to commence delivery mid 2015. Completion is targeted early 2016.
- 3. Will the proposed number of new homes mean you will have to lay larger higher capacity pipes/sewers/cables in the Cranleigh area? Strategic transfer mains should be adequate to meet this demand, but localised reinforcement mains to specific developments may be required. These will need to be assessed on a case by case basis. Hence the need for the above 'Water Supply & Sewerage Infrastructure' text to be included in the Neighbourhood Plan.
- 4. Are there any locations in the proposed list of developments where it will be particularly problematic to provide a service connection, for example a lengthy disruption to road traffic? Without undertaking detailed modelling work, it is not possible to confirm this, but there is little expectation that any of the locations will cause severe issues in terms of providing a connection. This will need to be reassessed as planning applications/developer queries are received.
- 5. Are there any other comments you want to make about infrastructure issues in the Cranleigh area? General comments made above, both in relation to water supply and wastewater infrastructure.

I trust the above is satisfactory, but please do not hesitate to contact me if you have any queries.

Yours faithfully

Mark Mathews Town Planning Manager Thames Water Utilities Ltd.

### **Response from BT**

Thanks Peter ...

To ensure a comprehensive and resilient plan locally we would need to get the "New Sites / Developments" lead manager engaged from Openreach and the team from Surrey CC to work together ... so that any agree major developments are registered and the areas future-proofed. The communications capacity will be increased to meet any agreed development plans – ideally via a FTTP (Fibre to the Premise) deployment, which will deliver very high SuperFast Broadband speeds.

I hope this helps in the short-term

My very best wishes

Peter R Cowen Partnership Director South East and Enterprise M3 LEP Board Members 07710 070852 peter.r.cowen@bt.com For up to date information on BT in the English regions please go to<u>http://www.bt.com/btregions</u> This electronic message contains information from British Telecommunications plc which may be privileged or confidential. The information is intended to be for the use of the individual(s) or entity named above. If you are not the intended recipient be aware that any disclosure, copying, distribution or use of the contents of this information is prohibited. If you have received this electronic message in error, please notify us by telephone or email (to the numbers or address above) immediately. BT Broadband. Bringing you and Broadband

together. www.bt.com/btbroadband<http://www.bt.com/btbroadband>.

From: Peter Seaton [mailto: pseaton9@gmail.com]
Sent: 08 October 2014 19:04
To: Cowen, PR, Peter, CQA R
Cc: Paul Cherrett; Stephen Dawe; Peter Seaton
Subject: Re: Cranleigh Neighbourhood Plan - Working together

Dear Peter,

Many thanks for your prompt response. The aim of the Neighbourhood Plan is to develop "policies" on land use matters in our community. We are not a "lobbying" organisation but we can ask the community for their views on fibre optic networks built into big new developments in Cranleigh and if positive response we can incorporate it into our Neighbourhood Plan as a policy. Of course, this would not apply to developments approved before the Plan is in place, which may be as late as 2016.

However, there is some talk about developing a Cranleigh Civic Society and, if this goes ahead, it may be something that they can take up with developers now.

I have circulated this note to members of the Cranleigh Neighbourhood Plan Group for their views.

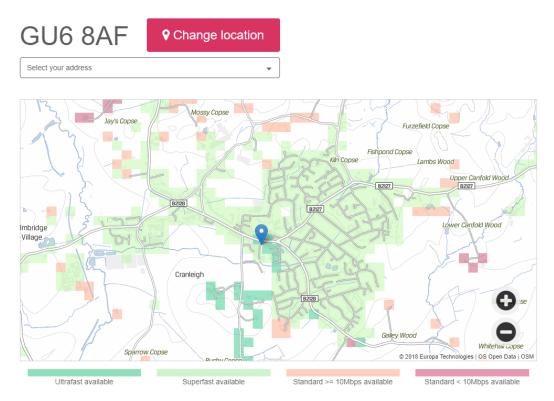
Just to mention that the main point of interest on infrastructure issues was the capability of the different providers to meet the demand from the number of houses to be built in Cranleigh both external and internal to Cranleigh. Are you able to comment on capacity feeding Cranleigh?

Regards Peter Seaton Community and Infrastructure Working Group Cranleigh NP Tel 01483 272547

### **Broadband and Mobile Phone Signal Coverage Maps**

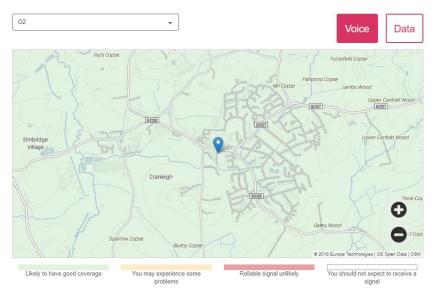
Maps taken from the Ofcom website <u>https://checker.ofcom.org.uk/</u> based on post code of Cranleigh Parish Council offices, Village Way, Cranleigh GU6 8AF.

#### Broadband:



#### Outdoor Voice Mobile Signal: O2 network:

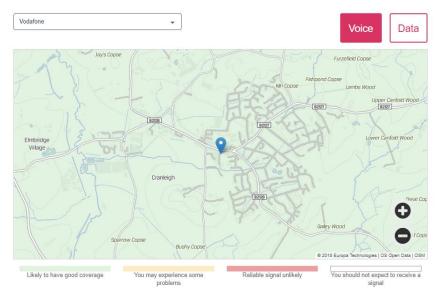




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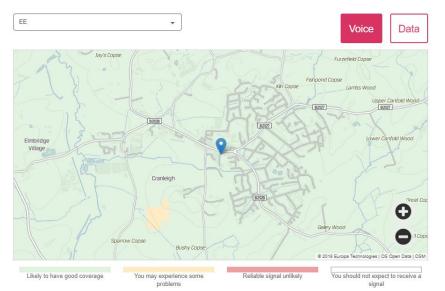


This map shows mobile availability in your area. Please select your network to view availability from your provider.



#### EE network:

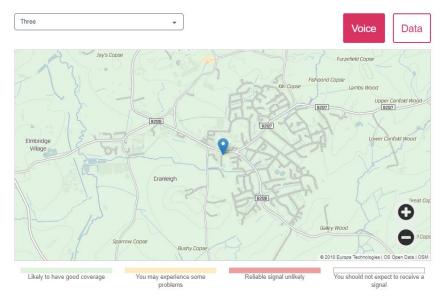






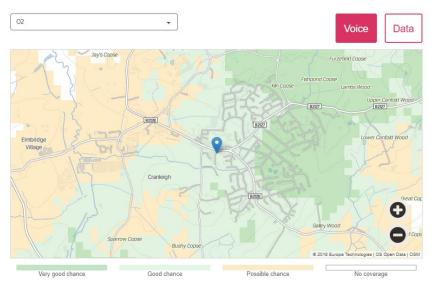


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#### Indoor Voice Mobile Signal: O2 network:

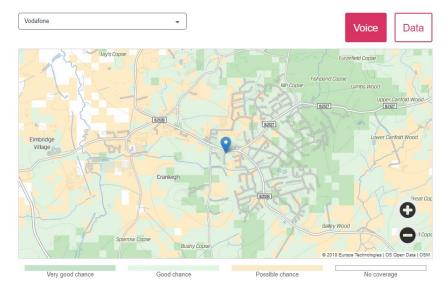




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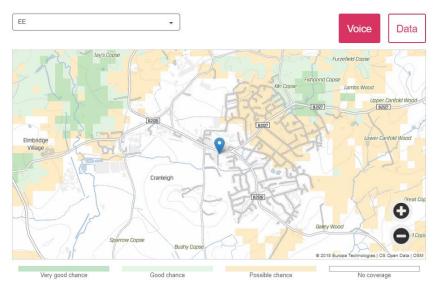


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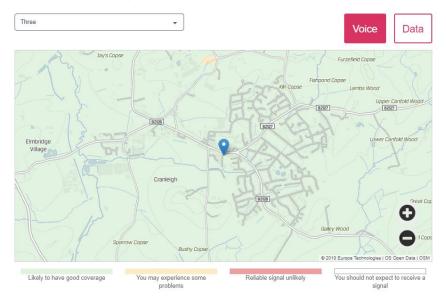






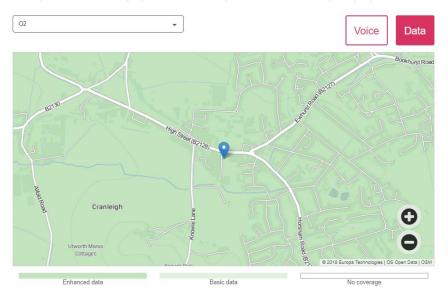


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#### Outdoor Data Mobile Signal: O2 network:

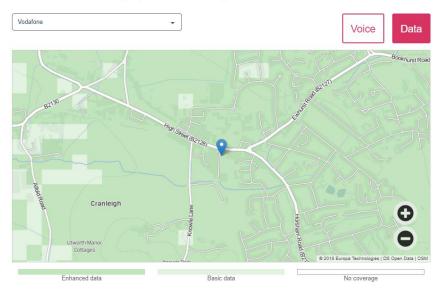




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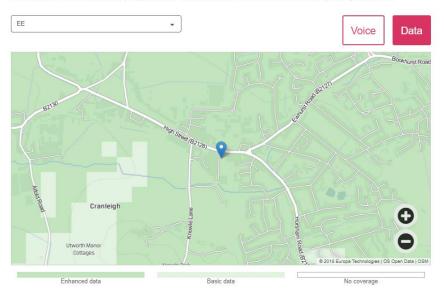


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#### EE network:

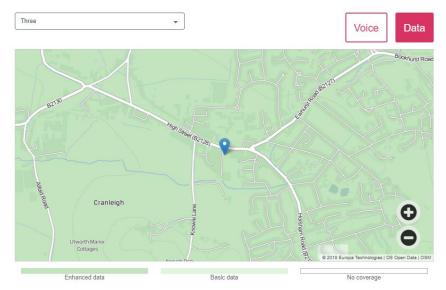




#### Three network:

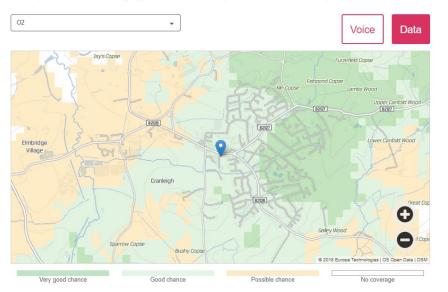


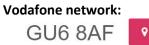
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# Indoor Data Mobile Signal O2 network:

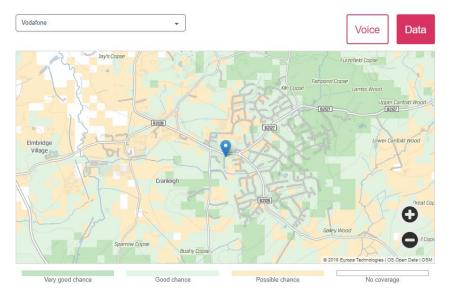






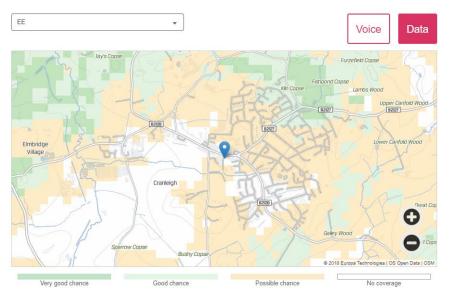


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#### EE network:





#### Three network:



