CROWN FIBRE HOLDINGS LIMITED

Statement of Intent

1 July 2017 – 30 June 2021

Presented to the House of Representatives

pursuant to the Crown Entities Act 2004

Contents

1.   Introduction

This Statement of Intent (**SOI**) is submitted by the Board of Directors of Crown Fibre Holdings Limited (**CFH**), pursuant to the Crown Entities Act 2004 and sets out CFH objectives and intentions from 1 July 2017 to 30 June 2021.

During the time since the last CFH SOI in 2014, the availability of Ultra-Fast Broadband (**UFB**) has become increasingly widespread in our cities and towns.

UFB deployment at 31 March 2017 was 6% ahead of plan, with over 1,103,000 end users (such as households and businesses) able to connect to UFB, representing approximately 55% of the population. At this date, 73.8% of the overall UFB initiative build was complete.

In the March 2017 quarter, there have been approximately 40,000 new UFB connections, and uptake is continuing to steadily increase, having recently passed 33% uptake.

It is forecast by 30 June 2017 that nearly 1.2 million end users will be passed representing approximately 60% of the population, with uptake of ~35% (approximately 415,000 connections).

In January 2017, CFH awarded contracts to extend UFB to cover a further 8.6% of the population by 2024, well in excess of the 5% population coverage policy target. UFB and private fibre will now cover 85% of the population by the end of 2024 with only approximately 1.5% to 1.7% of the urban population not being covered by UFB.

New Zealand has advanced in the OECD country rankings for population covered by fibre from 14th in 2015 to 11th in 2016. Once the UFB initiative (and its extension) is complete, New Zealand should be 5th in the OECD with 85% population coverage (including both UFB and private fibre).

We expect to continue to see increasing numbers of New Zealanders benefiting from this highly advanced technology.

CFH is currently carrying out the tender process for the Rural Broadband extension and Mobile Blackspots (**"RBI2/MBS"**) programme, which will be followed by establishing contracts and overseeing the rollout of infrastructure into rural New Zealand over the coming years. These programmes are targeting the improvement of broadband availability for another 3.7% of the population and reducing mobile black spots across 3,124 kilometres of state highways and 190 tourist areas (target areas and end users are described in **Appendix 5**).

CFH is responsible for the statements contained in this document, including the appropriateness of the underlying assumptions.
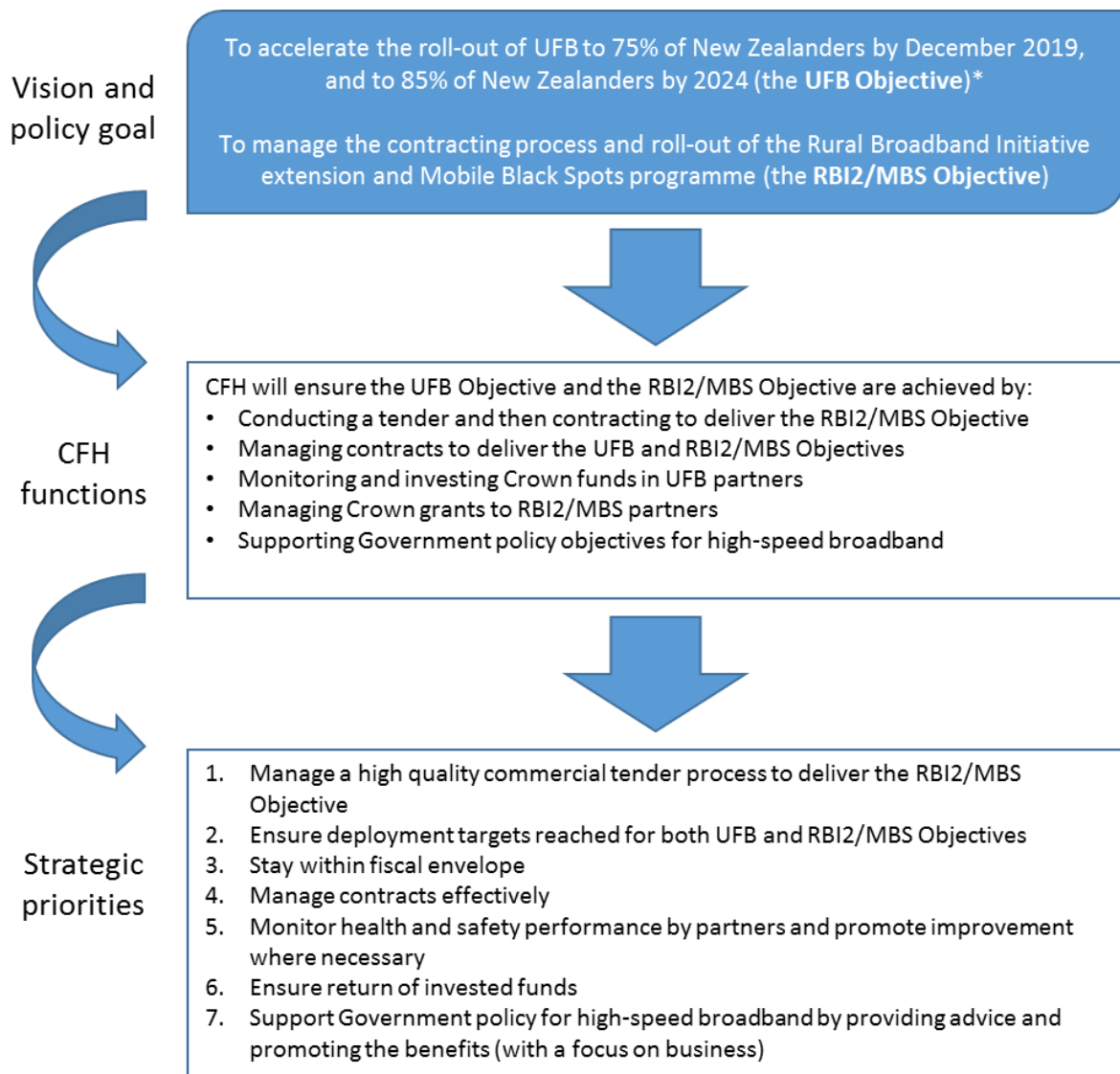
Simon Allen
Chair
30 June 2017

Keith Tempest
Director
30 June 2017

2.   CFH vision, function, strategic priorities and scope

2.1   CFH vision, function and strategic priorities

Vision and policy goal

To accelerate the roll-out of UFB to 75% of New Zealanders by December 2019, and to 85% of New Zealanders by 2024 (the **UFB Objective**)*

To manage the contracting process and roll-out of the Rural Broadband Initiative extension and Mobile Black Spots programme (the **RBI2/MBS Objective**)

CFH functions

CFH will ensure the UFB Objective and the RBI2/MBS Objective are achieved by:
- Conducting a tender and then contracting to deliver the RBI2/MBS Objective
- Managing contracts to deliver the UFB and RBI2/MBS Objectives
- Monitoring and investing Crown funds in UFB partners
- Managing Crown grants to RBI2/MBS partners
- Supporting Government policy objectives for high-speed broadband

Strategic priorities

1. Manage a high quality commercial tender process to deliver the RBI2/MBS Objective
2. Ensure deployment targets reached for both UFB and RBI2/MBS Objectives
3. Stay within fiscal envelope
4. Manage contracts effectively
5. Monitor health and safety performance by partners and promote improvement where necessary
6. Ensure return of invested funds
7. Support Government policy for high-speed broadband by providing advice and promoting the benefits (with a focus on business)

* NB: CFH is responsible for the roll-out of UFB to 84% of the population by 2024, with the remaining 1% being private fibre that CFH is not responsible for

2.2   The scope of CFH

CFH will:

- complete the tender and enter into contracts to deliver the RBI2/MBS Objective;

- implement the RBI2/MBS programme with RBI2/MBS partners (**RBI2/MBS Partners**) to deliver the RBI2/MBS Objective;

- manage contracts with UFB co-investment partners[1] (**UFB Partners**) to achieve the UFB Objective[2];

- operate in a financially sustainable manner within its fiscal funding envelope, being the sum which it may invest with its UFB Partners and the sum which it may provide in grants to RBI2/MBS Partners;

- continue investing without providing a commercial return to the Crown; and

- when directed by its shareholding Ministers and the Minister for Communications, provide a commercial return on the Crown's investment.

3.   How CFH will deliver on key outcomes

Key strategies and actions to achieve the outcomes for which CFH is accountable, that is, delivering the UFB Objective and the RBI2/MBS Objective within its fiscal envelope, are as follows.

For UFB:
- monitoring the performance of contracts with UFB Partners as they relate to investment, quality and timeliness of UFB deployment, and delivery of the agreed UFB products;
- monitoring the financial and operational performance of UFB Partners for potential impacts on the rollout and/or the value of investments held;
- agreeing annual deployment plans with UFB Partners to ensure the UFB Objective is achieved, monitoring implementation of such plans to meet agreed targets, and taking appropriate action if such targets are not met;
- working with partners to bring forward deployment schedules where possible;
- matching investment to progress of the UFB build and at the end of the concession periods[3], ensuring the return of invested funds; and
- proactively monitoring end users' experiences with UFB and Partners' installation performance, and raising issues in a timely manner.

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[1] UFB Partners and their relationships with CFH are described in **Appendix 1**.

[2] For the purposes of the UFB initiative (and its extension programme), UFB means a fibre-to-the-premises broadband service making available a minimum uncontested 100 megabits per second (Mbps) downstream (from the internet to the user) and 50 Mbps upstream (from the user to the internet), capable of being upgraded to 10 times these speeds for residential customers and 10 gigabits per second for business customers.

[3] The concession period is the period in which Crown funds are invested for which no commercial return is sought.

- carrying out and completing the tender process for RBI2/MBS, including the Invitation to Co-fund and/or Assist for local authorities;
- agreeing contracts with RBI2/MBS Partners for the deployment of infrastructure to achieve the RBI2/MBS Objective;
- where assistance in funding is offered by local authorities, agreeing contracts for the provision of this assistance where necessary;
- monitoring the performance of contracts with RBI2/MBS Partners as they relate to investment, quality and timeliness of RBI2/MBS deployment, and performance of the agreed RBI2/MBS products; and
- agreeing annual deployment plans with RBI2/MBS Partners to ensure the RBI2/MBS Objective is achieved, monitoring implementation of such plans to meet agreed targets, and taking appropriate action if such targets are not met.

CFH generally:

- monitoring health and safety performance by all UFB and RBI2/MBS Partners across all programmes, and ensuring CFH's own staff/contractors have a safe working environment and do not suffer any harm;

- engaging with Ministers, the Treasury and the Ministry of Business, Innovation and Employment in the event that CFH receives requests to make, or initiates, changes to the contracts with Partners which involve policy issues or which may impact fiscal parameters, before agreeing to any such changes;

- monitoring CFH's cashflow and accordingly providing up-to-date forecasts to Treasury and shareholding Ministers, as well as maintaining a suitable investment policy which appropriately addresses counterparty risk;

- managing CFH so as to avoid waste, increase efficiency and reduce future costs;

- identifying any opportunities to exit UFB investments earlier and notifying Ministers of such opportunities; and

- updating forecasts of any surplus capital throughout the SOI period.

In addition to implementing the UFB Objective and RBI2/MBS Objective, CFH will have a clear, but limited, role in supporting UFB uptake by:

- working with Partners around deployment, with a focus on quality and timeliness of connections;

- encouraging discussions among Chorus, Local Fibre Companies (**LFC**s) and other utility providers to achieve efficiencies in relation to UFB deployment; and

- generally promoting UFB by talking to business/industry groups, Retail Service Providers (**RSP**s) and other stakeholders.

4.   CFH performance targets

CFH performance targets and measures through to 2021 include specific goals for deployment of the UFB and RBI2/MBS infrastructure, as well as financial and operational efficiency, as set out below.

Achieving the UFB and RBI2/MBS Objectives within the fiscal envelope is CFH's key accountability – in particular, ensuring that the UFB and RBI2/MBS networks are deployed on time and in line with the Government's policy requirements.

4.1   UFB deployment

Progress towards the UFB Objective is regularly measured in terms of:

- number of premises handed over by Partners to CFH or the applicable LFC for user acceptance testing;
- number of end users (such as households) able to connect to UFB; and
- overall, the percentage of the UFB Objective which has been completed.

As at 31 March 2017, more than 1,103,000 end users were able to connect to UFB. At that time, 73.8% of the overall UFB initiative build was complete. 'Priority user' targets within UFB1 coverage areas have all been achieved with all urban schools and public hospitals now having access to UFB and 92% of businesses having access to UFB[4] (the target for businesses was 90% by 2015, and this was achieved by that date).

UFB deployment is expected to continue at a rate broadly similar to that of recent years. Greenfield areas within or adjacent to UFB coverage areas are deployed sometimes in conjunction with developers.

A more detailed view of UFB deployment forecasts over the SOI period, as well as New Zealand's movement in the OECD rankings for availability of fibre, and uptake of UFB to 31 March 2017, is shown in **Appendix 2**.

Two case studies demonstrating the benefits of UFB are set out in **Appendix 3**.

A summary of the UFB areas being deployed by Partner is set out in **Appendix 4**.

4.2   RBI2/MBS programme

Responses to the tender for the RBI2/MBS programme were received on 3 April 2017. CFH is in negotiations with respondents to agree contracts to deliver on the RBI2/MBS Objective.

Specific performance targets for the RBI2/MBS programme will be updated later in 2017, once contracts are finalised and network deployment plans agreed. Overall, it is expected that RBI2/MBS

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[4] This refers to the percentage of businesses that are located inside UFB areas (to be covered under the original UFB initiative, not the UFB extension programme).

deployment will be completed by December 2022, consistent with the Government policy target. A summary of the RBI2/MBS target areas is set out in **Appendix 5**.

4.3   Financial and operational efficiency

Each year the CFH Board, in conjunction with its shareholding Ministers and the Minister for Communications, will plan the future resourcing levels of CFH, depending on:

- progress made towards achieving the UFB Objective and RBI2/MBS Objective;
- the performance of UFB and RBI2/MBS Partners in meeting obligations under CFH contracts;
- any new initiatives or expansion of existing initiatives; and
- the degree to which Crown investment is actively monitored, based on the current level of risk and the level of support required by the Government.

Over the next four years, CFH will continue to reduce operational expenditure. Some activities will be completed, while others (for example, commercial and contractual management of Partners) will become less onerous. In consultation with Government, CFH may also determine that some functions are no longer required or can be performed more effectively by other Government agencies, including taking into consideration the regulatory framework which will be established under the updated Telecommunications Act 2001.

Details of CFH forecasts and financial statements are provided in its SPE for the current and upcoming fiscal years. CFH also expects to see steady improvements in its operational efficiency. The ratio of operational costs to its annual investment in UFB infrastructure is expected to decline from 4% to 2% over this SOI period.

5.   Monitoring performance targets of Partners

To ensure contractually agreed levels are met, CFH monitors the operational and service performance of Partners as below. Progress against such targets by Partners is included in the CFH Annual Report to advise on UFB (and when applicable, RBI2/MBS) operational performance but are not part of CFH's key performance indicators.

5.1   UFB service performance

Partners are responsible for meeting service performance targets agreed with CFH and RSPs, including metrics tracking Partners' ability to provision new UFB services, metrics on restoration of network and customer outages and performance of the networks within agreed service levels. As well as high-quality minimum performance, each Partner also offers enhanced service levels with improved performance guarantees.

5.2 RBI2/MBS service performance

Service parameters will be established with successful partners covering product and service performance. Once established, these will be reported on and included in CFH's annual report.

5.3 Occupational Health and Safety (OSH)

CFH will ensure its compliance with obligations under the Health and Safety at Work Act 2015. CFH encourages its Partners to focus on OSH matters and benchmarks the Partners' performance against key safety measures, such as the Total Recorded Injury Frequency Rate.

6. Organisational health and capability

6.1 Capability development

CFH will:
* maintain and increase the capability of its people and the quality of its systems;
* ensure that services delivered are as cost-effective as possible;
* ensure its capital spending supports essential capability development;
* aim to achieve high levels of staff engagement;
* aim to operate with reliable and cost-effective technology;
* provide a safe environment for staff; and
* maintain sound financial and governance systems.

6.2 Risk management

CFH operates with a rigorous approach to risk management, which includes a regularly updated register of risks to the delivery of its goals, managing these through an agreed management process, and oversight from the Board's Audit and Risk Committee as described in Section 7.3.

6.3 Ensuring CFH is a good employer

The successful achievement of the UFB and RBI2/MBS Objectives depends on adequate capability in a number of areas, including those relating to technical, commercial, financial and investment expertise. It is important that CFH retains skilled staff, is a good employer and offers an attractive place to work. Consistent with the *State Services Commission Guidance on Expectations for Pay and Employment Conditions in the State Sector*, CFH employer policies also aim to ensure that the company respects its equal-opportunity responsibilities.

6.4 Measuring progress

CFH will measure its progress in developing its capability by:

- aiming to achieve as a minimum "Good" ratings (in accordance with the Audit NZ ESCO (environment, systems and controls) assessments) from audits of its management controls;

- regularly reviewing its progress and priorities with its shareholding Ministers and the Minister for Communications; and

- flexible allocation of resources to address changing requirements.

7.   Governance

7.1   Organisation form

Incorporated in 2009 under the Companies Act 1993, CFH is a Crown-owned company, listed under Schedule 4A of the Public Finance Act 1989 and subject to the Crown Entities Act 2004, the Official Information Act 1982 and the Ombudsmen Act 1975.

Its shareholders are the Minister of Finance and the Minister for State Owned Enterprises, who each hold 50% of the issued share capital. Aiming to provide services to the public rather than make a financial return, CFH has accordingly designated itself a public-benefit entity.

7.2   Board of Directors

Following its established policy of strategic planning, sound procedures and regulatory compliance, the Board is committed to a high standard of corporate governance in guiding and monitoring the business.

Responsibility for CFH's operation and administration is that of the Chief Executive, who is accountable to the Board, which is made up of five non-executive Directors appointed by shareholding Ministers, following Cabinet approval.

7.3   Board committees

To help Directors carry out their duties and fulfil their responsibilities, the Board has two standing committees:

- the Audit and Risk Committee provides recommendations, counsel and information on accounting, reporting, risk management and responsibilities under legislation. Its Terms of Reference also cover the role of internal audit; and

- the Remuneration Committee provides advice and recommendations on remuneration and human resources policies for CFH.

7.4 Consultation with Ministers

CFH expects to continue regular liaison with key officials and to engage with shareholding Ministers and the Minister for Communications as required. In particular, CFH will consult with its shareholding Ministers and the Minister for Communications on any matters involving Government policy and any substantial matter not contemplated in this SOI or annual SPE.

7.5 Crown Entities Act requirements

CFH is subject to various sections of the Crown Entities Act, including the following:

- Section 100 requires CFH to provide shareholding Ministers with advance notice of its intended investments during each financial year;

- Section 133 requires the Board to supply to its responsible Ministers any information relating to its operations or performance as requested by Ministers;

- Section 134 details good reasons for refusing to supply such information;

- Sections 139 and 150 require preparation of an SOI and Annual Report;

- Sections 149C and 149E require CFH to table an SPE outlining its reportable outputs and the intended achievement of each;

- Sections 154–156 relate to the preparation of the annual financial statements;

- Section 158 relates to bank accounts; and

- Sections 162 and 163 prohibit borrowing and restrict guarantees and indemnities.

7.6 Other statutory requirements

Under the Public Audit Act 2001, the Controller and Auditor-General is the auditor of CFH.

8. CFH Policies

8.1 Dividend policies

As set out in its Constitution, CFH is not expected to return any profit, distribution or dividend to the Government until the UFB Objective has been achieved.

CFH will advise Government when surplus capital is available which could be used to invest in further infrastructure, reduce appropriation drawings or to return to shareholders.

8.2 Acquisition policies

The role of CFH necessitates regular investments in Chorus and LFCs for the completed UFB network, as described in **Appendix 1**.

Appendix 1: UFB investments, Partners and LFCs

UFB Partners

CFH has contracts with three Partners, as listed below, to operate a Local Fibre Company (**LFC**) to invest in UFB infrastructure in order to achieve the UFB Objective. CFH has a contract with, and debt and equity securities in, Chorus Limited (**Chorus**) to invest in UFB infrastructure in order to achieve the UFB Objective. Both the LFCs and Chorus own and operate the UFB network in their areas, selling wholesale UFB services to Retail Service Providers.

The arrangements are summarised in Table 1 below:

Table 1: UFB Partners and LFCs

UFB Partner	Local Fibre Company (LFC)	Coverage area
• Northpower Limited for UFB1 • Northpower Solutions Limited for UFB2 **(both Northpower)**	Northpower Fibre Limited **(Northpower Fibre)** for Whangarei and a new LFC for the UFB expansion	2% of overall UFB initiative (~29k premises) including Whangarei and surrounding towns
• Waikato Networks Limited (**WNL**) for UFB1 • UFF for UFB2	Ultra-fast Fibre Limited (**UFF**)	14% of overall UFB initiative (~180k premises) including Hamilton, Tauranga, New Plymouth, Whanganui and 17 central North Island towns
• Christchurch City Holdings Limited (**CCHL**) and Enable Services Limited (**ESL**	Enable Network Limited (**ENL**)	11% of overall UFB initiative (~152.5k premises) including Christchurch, Lincoln, Rolleston and 4 further surrounding towns
• Chorus Limited (**Chorus**)	n/a	73% of overall UFB initiative (~999k premises) including Auckland, Wellington, Dunedin, Nelson and a further 157 towns and cities.

See **Appendix 4** for complete coverage by Partner. UFB1 is the first UFB initiative to cover 75% of population by 2019 and UFB2 is the expansion initiative to cover a further ~8.6% of population by 2024.

Investment structure for UFB

Northpower and Northpower Fibre

CFH is a shareholder in, and is represented on, the Board of Northpower Fibre. The independent Chair is Jo Brosnahan, and CFH-appointed directors are Graham Mitchell (CFH Chief Executive) and Sean Wynne (CFH Chief Commercial Officer). Northpower Fibre operates and owns the UFB network in Whangarei.

Northpower has completed its UFB build in Whangarei and is now building an additional 11 towns for the UFB expansion programme. For these 11 towns (~9,000 premises), an interest-free loan has been provided to Northpower, with two tranches repayable within 15 years and three months from the first drawdown of each build period.

Christchurch City Holdings Limited and ENL

CFH advances funds interest free to CCHL who provides funding to ESL (UFB build partner) who in turn advances funds to Enable Networks Limited to fund the build of the UFB network. The advance is repayable in May 2021 and is secured over the assets of Enable Networks Limited.

CFH restructured its equity holding in ENL into a secured loan with CCHL in June 2016.

WNL/UFF

WNL completed the eight towns and cities in the UFB1 programme in early 2016. CFH exited its shareholding in UFF in September 2016 through a sale of shares to WNL.

UFF is self-funding the expansion of UFB to 12 towns in the central North Island.

Chorus

Chorus is deploying the balance of the UFB programme coverage, in 161 cities and towns throughout New Zealand, with the fibre network to pass nearly 1 million premises.

CFH will invest up to $929 million in Chorus for the original UFB programme (UFB1), via a 50:50 mix of debt and equity securities, based on an agreed cost per premises passed with UFB fibre. For the UFB extension programme (UFB2), a CFH funding commitment of approximately $291.3m will be advanced through a combination of equity securities up to $191m and the balance through interest free debt securities. For Chorus, the debt is interest free and repayable in tranches from 2025 to 2036, and equity securities hold redemption events which will likely be triggered from 2025 to 2036 at face value.

Appendix 2: Expected progress of UFB deployment

Table 2: UFB coverage (including both UFB1 and UFB2)

	Fiscal Years to 30 June				
Premises Passed Cumulative	**FY17**	**FY18**	**FY19**	**FY20**	**FY21**
UFB1	847,478	973,267	1,105,829	1,173,839	1,173,839
UFB2	-	7,029	35,162	76,950	115,486
Total	**847,478**	**980,295**	**1,140,991**	**1,250,788**	**1,289,325**
% Complete	**FY17**	**FY18**	**FY19**	**FY20**	**FY21**
UFB1	72%	83%	94%	100%	100%
UFB2	0%	3%	18%	38%	58%
Total	**62%**	**71%**	**83%**	**91%**	**94%**
Number of Towns Passed Cumulative	**FY17**	**FY18**	**FY19**	**FY20**	**FY21**
UFB1	22	29	30	38	38
UFB2	0	4	22	46	73
Total	**22**	**33**	**52**	**84**	**111**

Each premises is a single building or structure located on a defined geographical site (as evidenced by a certificate of title), which has a unique physical address recognised by New Zealand Post and is occupied by, or could readily be occupied by, a potential end user or users. To clarify, a multi-tenanted building, such as an apartment block or office building, constitutes a single premises for the purposes of the CFH funding of its Partners.

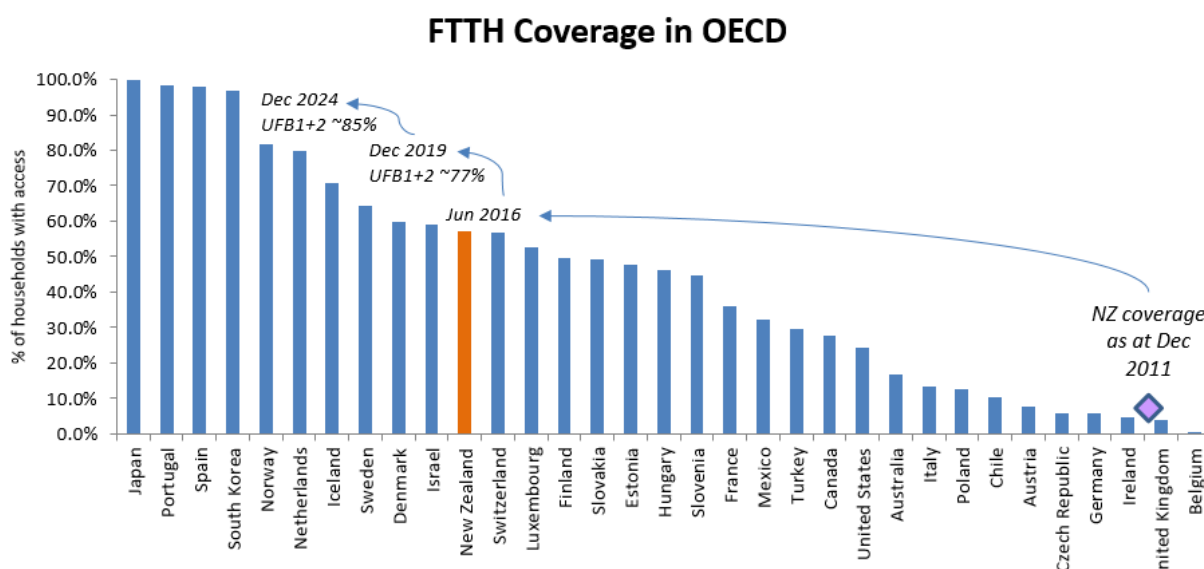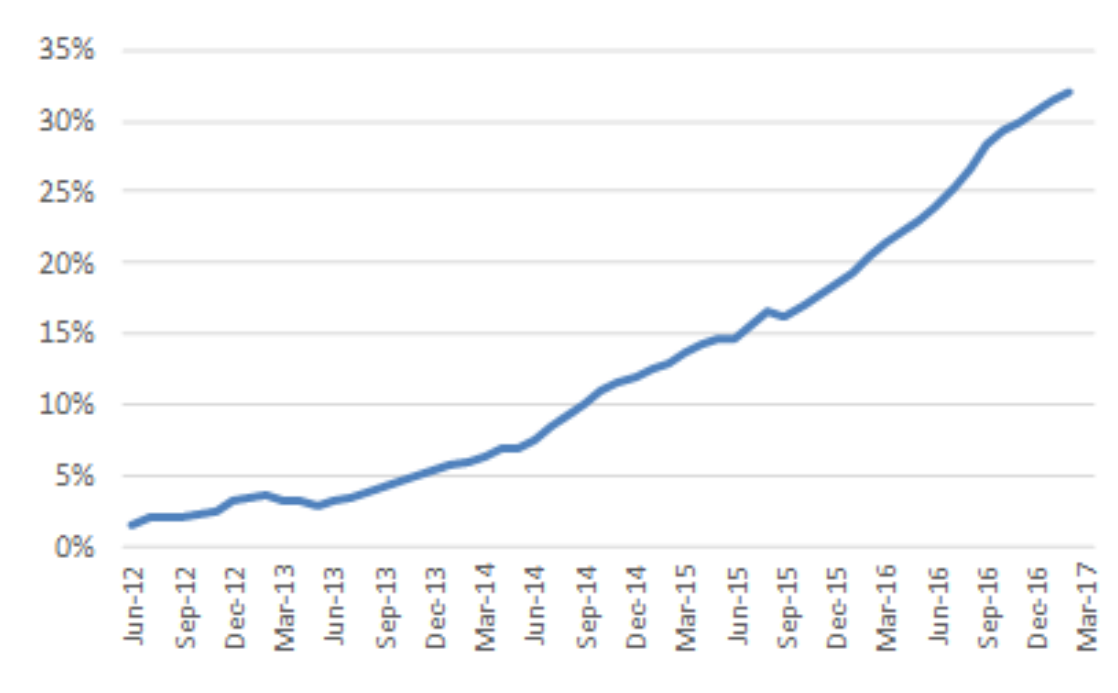*Table 3: New Zealand's progress in the OECD rankings*

Table 3 shows the progress New Zealand has made in the OECD rankings for availability of fibre since the UFB programme began in 2011.

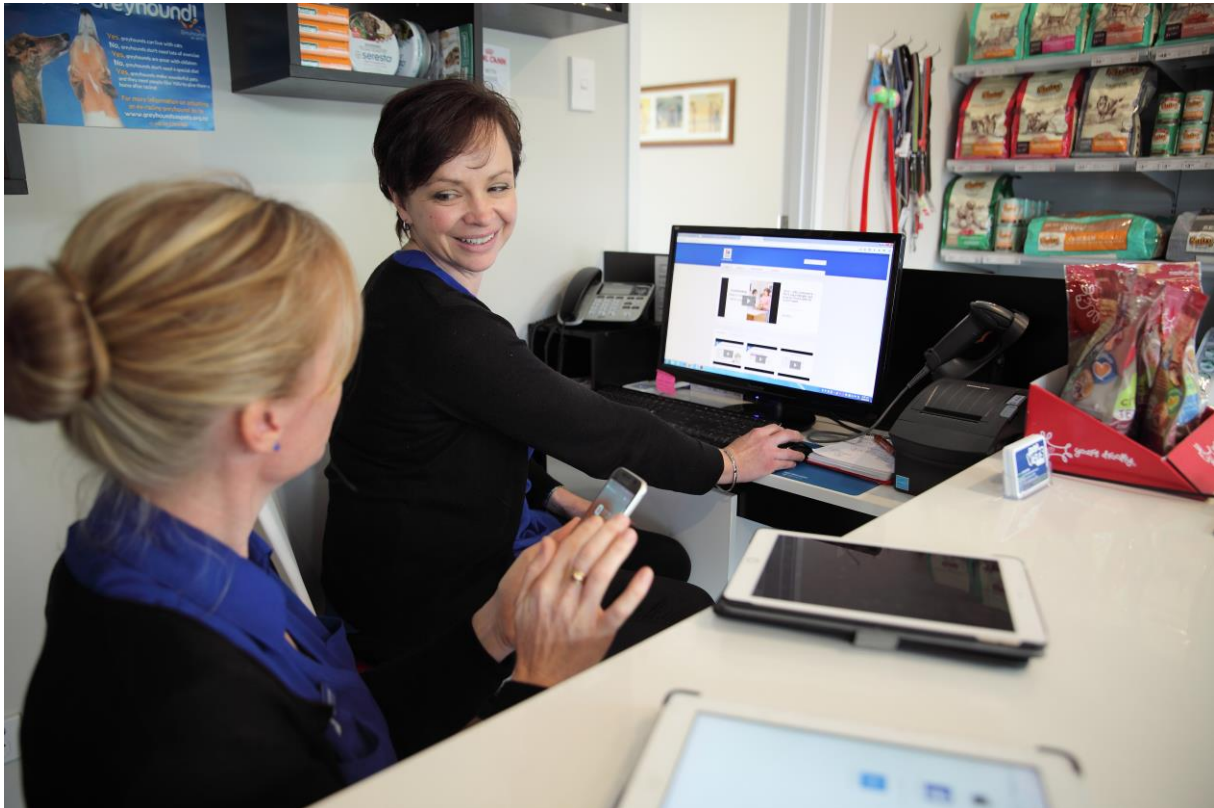In the latest OECD figures released for June 2016, New Zealand was ranked 11th.

Table 4: UFB uptake to 31 March 2017

Appendix 3: UFB case studies

Below are descriptions of two case studies demonstrating the benefits to business deriving from UFB.

Rotorua vet Chris McKenzie and his wife Carol started Family Vets Rotorua in August 2015 with dreams of a relaxed, tech-savvy environment with UFB.

As well as a full sterile surgery, treatment room and dog and cat wards, they use a digital X-ray machine, have lab results to send and receive, operate cloud-based practice management and accounting systems, and maintain an active Facebook presence. All of that needs fast broadband, but they had to begin with an ADSL copper connection and Carol says it became a juggling act.

"Chris would take notes on paper when he did a consultation, then jump into the receptionist's chair to invoice and print out prescription labels. Then he had to type up the notes when the reception area was free, or wait and type up everything at home in the evening."

This was far from the casual setting the McKenzies had envisioned, where clients could chat to the vet on a couch in the waiting room, using iPads to sign up for services like pet insurance and weight-management programmes. The practice wanted to be able to send and receive X-rays easily and access all the details about an animal's treatment, from consultation to drugs administered, billing, even house calls, from any device in the practice – or anywhere else.

In April this year they got a 100 Mbps/100 Mbps UFB connection, and the dream started to come to life. Internet provider NOW provided 200 GB of data and two phone lines. The data rolls over month on month, so they get to keep what they don't use, and the business pays less than $150 per month, plus calls. "Now we can run multiple devices all linked together, all at the same time" Carol says.

[Family Vets Rotorua's](#) cloud-based practice management system ezyVet offers professional development sessions in which the team has been able to take part. Chris also likes to post case studies on the practice Facebook page, along with X-rays, notes about treatment and general advice.

The next plan is to add Internet-linked monitoring cameras to the dog and cat wards, so that staff at home can keep an eye on animals overnighting at the surgery. "Getting fibre has already revolutionised the way we do things. Having the clinic run the way we envisioned at the start is exciting, and we can't wait for what the future of the business holds."

Skyline Queenstown: "A fast fibre broadband network is the foundation of everything we do."

Skyline started in 1963 as a 'combi van' operation taking visitors up a (very steep) road to a vantage point on Bob's Peak, but in the last 50 years it has grown into a multi-million dollar international business. In Queenstown alone, Skyline offers a range of activities from the gondola and luge, to stargazing, mountain biking, a Maori cultural show, shops, café and a restaurant. The company also has tourism operations in Rotorua, the West Coast, Dunedin, Milford Sound, Singapore and Canada, and will soon be in Korea. Its New Zealand companies employ around 1200 staff and each year around 1.4 million visitors come through Skyline Queenstown and Rotorua.

To keep an operation that size operating smoothly requires considerable technological grunt, says Jonathan Clark, Skyline Enterprises' manager of IT, Architecture & Infrastructure. And with multiple sites, good broadband is essential.

"All our applications are centralised; our network is our core piece of infrastructure, the foundation of everything we do" he says. "That means the broadband connectivity has to be rock solid and always available. Critical business applications are hosted at our Christchurch data centre, or through the Microsoft cloud server in Australia, and all our local and international sites need to be able to connect up with high reliability and the lowest possible latency [*delay as data goes backwards and*

forwards from the data source]. Some of our sites are open 9am-11pm and some (like our hotels) are 24/7, so we need a good data connection right through the day."

Customer experience

Fibre broadband is also integral to customers' experience at Skyline Queenstown.

Take online ticketing, for example. At the moment, if a customer purchases a Skyline package via a device, they receive a voucher which they then exchange for a ticket once they get to the complex. In the future, however, broadband will make it possible to remove the voucher step altogether, Jonathan says.

"Customers will be able to have a seamless experience buying tickets online and heading straight to the gate without the need to exchange vouchers. It could be as easy as a customer being ticketed to their mobile phone and then just scanning that at the gate," Jonathan says.

Meanwhile, broadband has also improved the company's ability to offer a better luge photography service for customers, says Skyline Queenstown assistant general manager Wayne Rose. Five cameras dotted around the luge course take photos of riders as they shoot down the hill and then feed them back to staff in the kiosk. However, in the past, slow connection speeds could be frustrating.

"Before we got UFB connected last year, it could take up to 40 minutes to upload a luge photo because of the number of people coming through. Understandably, that was too long for some of our customers to wait. Since installing fibre we have seen a huge improvement in customer service as the team and the guests are able to interact much faster, and that's had a great impact on photo sales," Wayne says.

Free fast Wi-Fi

A fibre connection also allows Skyline to operate a high-speed guest Wi-Fi service throughout the complex, so visitors can contact friends and family back home, share their experiences on social media, and log into a Skyline portal for special offers, Jonathan says. And the connection has to be fast: guests are expecting to have the same delay-free internet access as they do back home and around the rest of the world, despite the fact they are standing on top of a hill surrounded by mountain ranges, hundreds of miles from any bustling metropolis, he says.

"UFB allows us to get the latency as low as possible and the speeds as high as possible, so tourists can connect quickly and easily to websites overseas, and they are happy with their experience."

Recruitment and marketing

From a business perspective, fibre broadband allows the Skyline management team to use Skype for recruitment interviews with potential staff in other parts of New Zealand or overseas, something that wasn't possible with slower internet speeds, Wayne says.

The UFB network is also fundamental for the company's interactive social media and onsite marketing campaigns. For example, fibre has provided the capability to adopt "MagicInfo" digital signage technology, meaning information can be updated immediately throughout the complex with a click of a button via a central portal.

Wayne says increasingly sophisticated data gathering and evaluation methods will mean in the future Skyline will be able to target its marketing more closely to individual customers and vary offers depending on what suits that demographic best.

"If a teenager comes on the gondola, they probably aren't going to be interested in a $200 West Coast helicopter ride. But a 50-year-old Indian tourist on a trip of lifetime to New Zealand could well be. And the teenager may well want to get a great offer on luge rides for them and their friends," Wayne says. "We could also offer tailor-made packages depending on our available capacity on other [Skyline] experiences and attractions, to create a good experience for the guest and manageable customer volumes across our businesses".
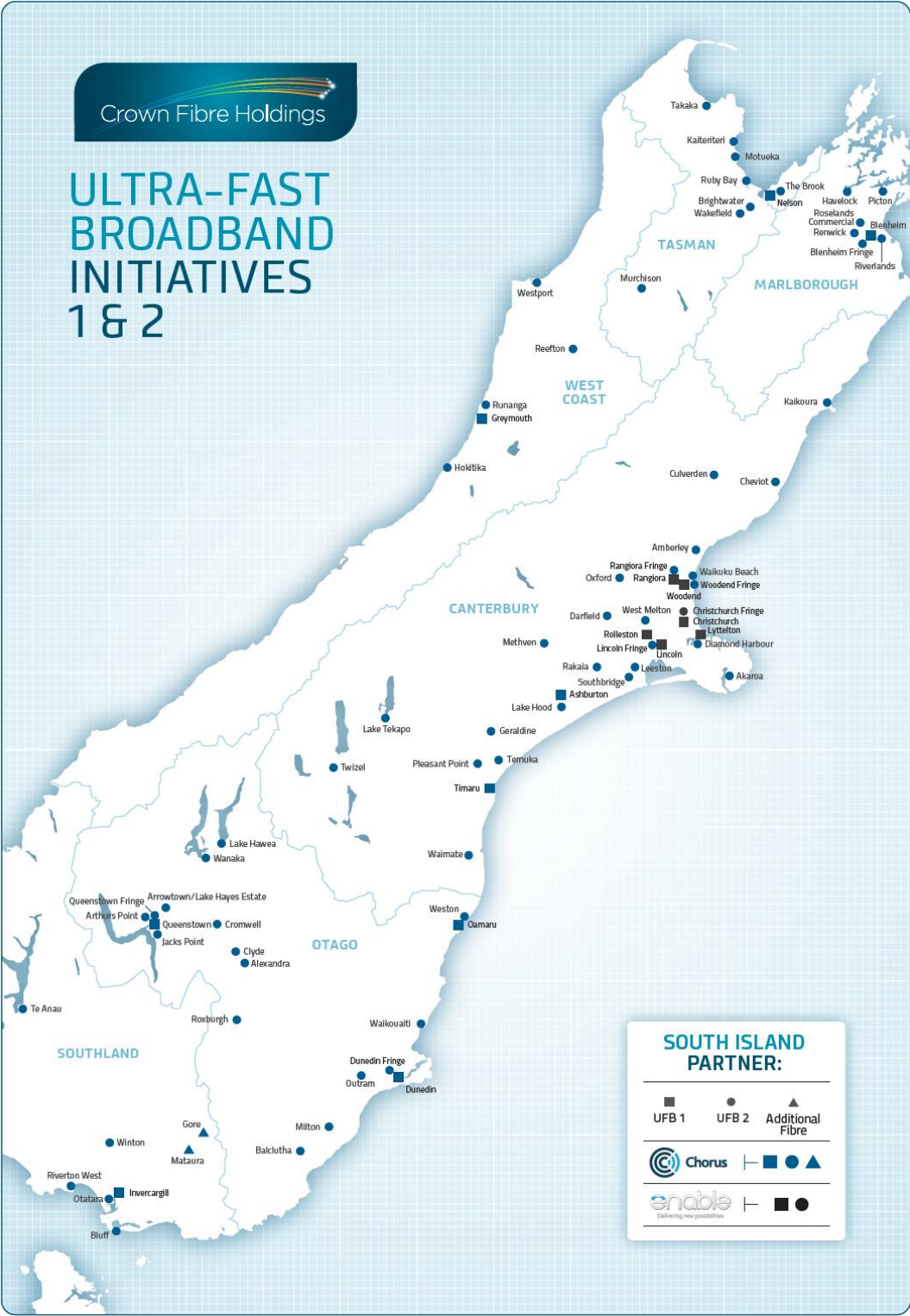
Appendix 4: UFB coverage areas and Partners

Below are diagrams indicating coverage of UFB (including UFB and its extension) in the North and South Islands. More information on coverage can be found at www.crownfibre.govt.nz.

Diagram 1: UFB coverage in the North Island

Diagram 2: UFB coverage in the South Island

Appendix 5: RBI2/MBS areas in scope

The focus of the RBI2/MBS programme is as follows:

- **RBI2** – 91,000 estimated end users (or 3.74% of the population) are in scope for improved broadband; and

- **MBS** – 3,124 kilometres of state highways and 190 tourist sites are in scope for improved mobile coverage.

The locations of the RBI2 underserved end users and MBS tourism sites and state highway areas in scope for the programme are set out in the following diagrams.

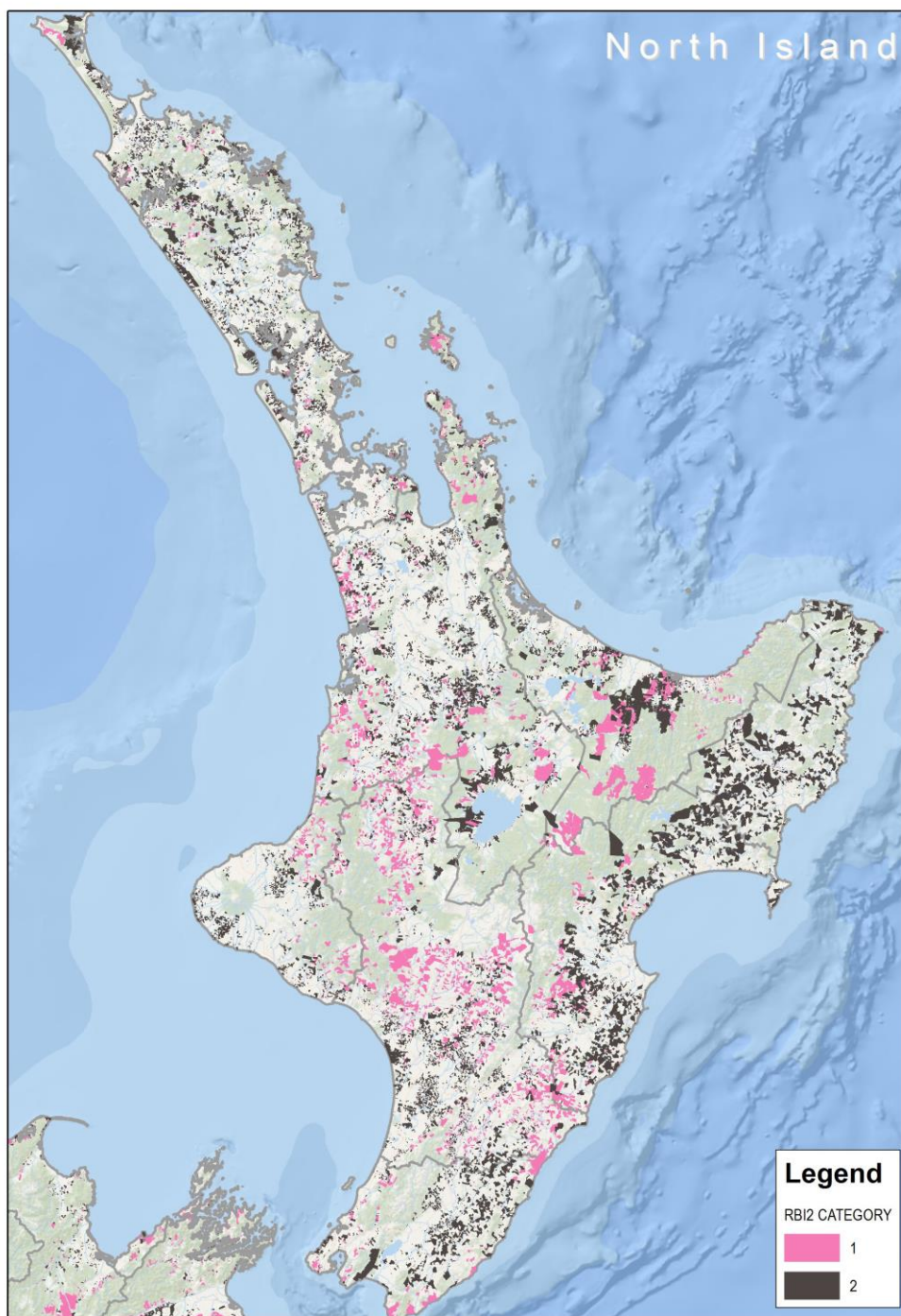*Diagram 3: RBI2 underserved end users – North Island*

Diagram 4: MBS tourism sites and state highway areas – North Island
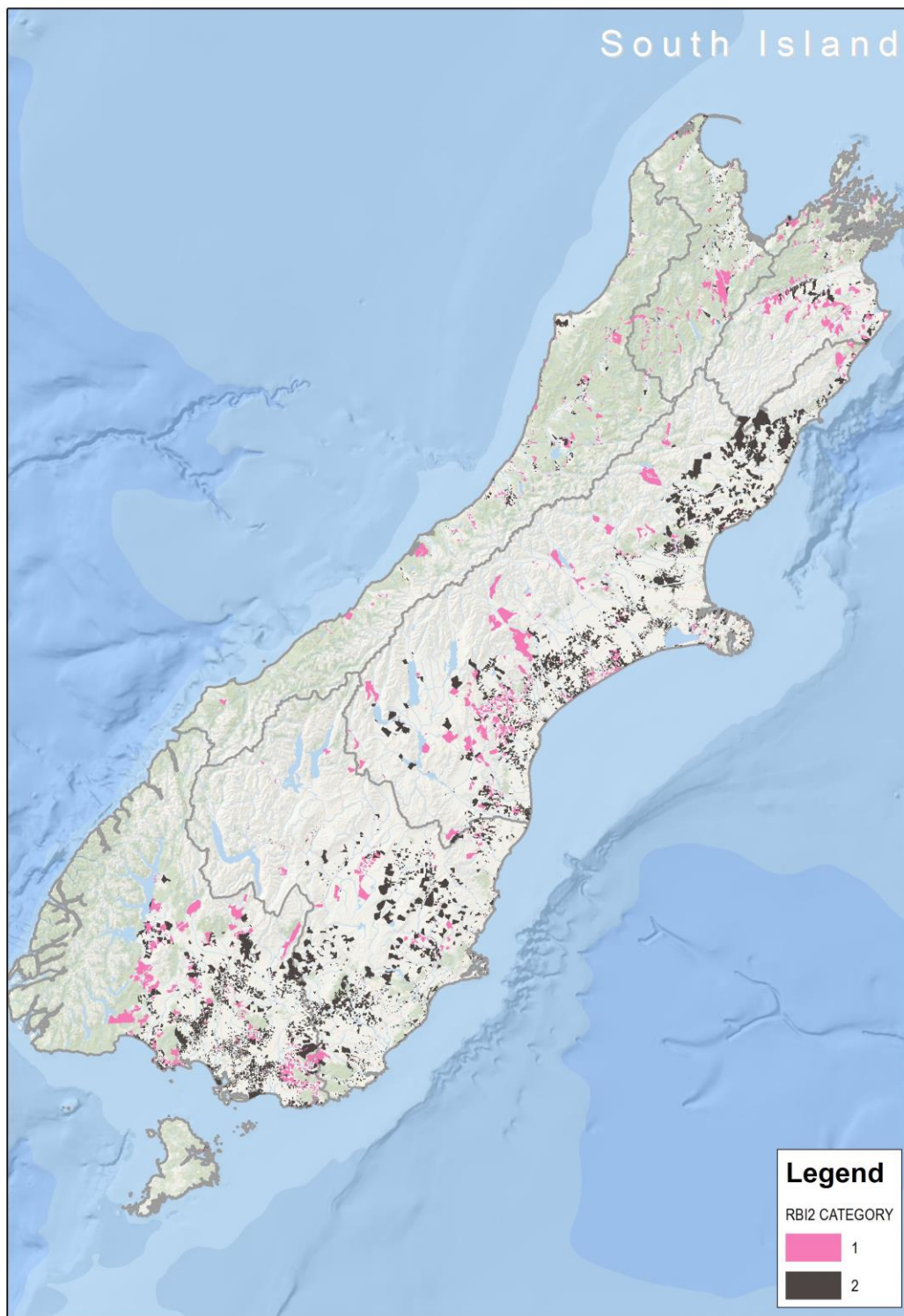
Diagram 5: RBI2 underserved end users – South Island

Diagram 6: MBS tourism sites and state highway areas – South Island