

Rural Connectivity Group

13 April 2019 – NZ Community Boards Conference

Rural Broadband Initiative phase two (RBI2) and Mobile Black Spots Fund (MBSF)

Increased connectivity in the regions

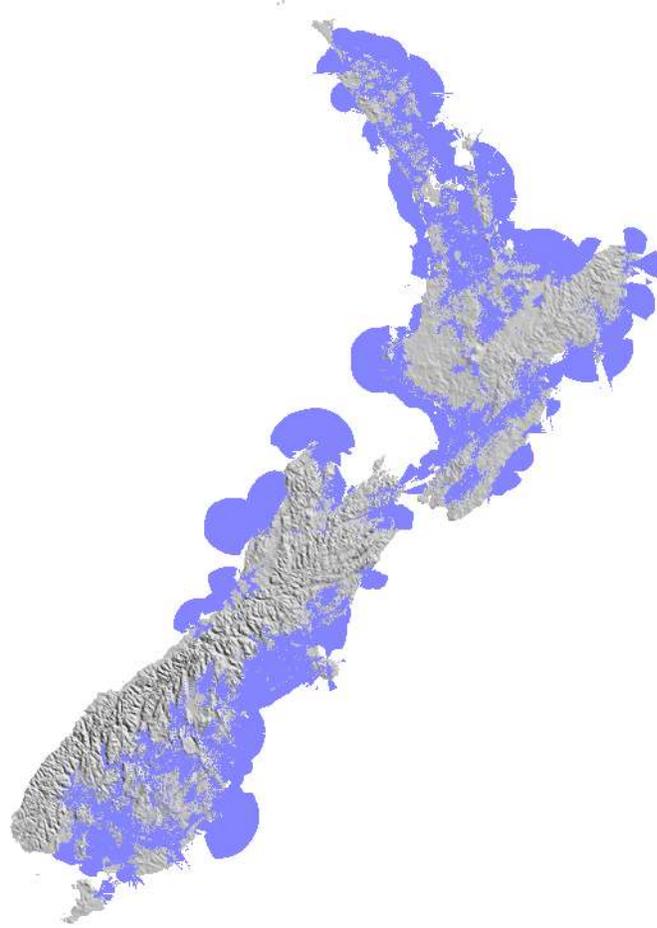
- RBI2 - High-speed broadband to eligible rural end-users (less than 20 Mbps)
- MBSF - Mobile coverage targeted at areas identified as having 'black spots' (no coverage from any operator)
- MBSF - Enhanced visitor experience at key tourist destinations

RCG Funding

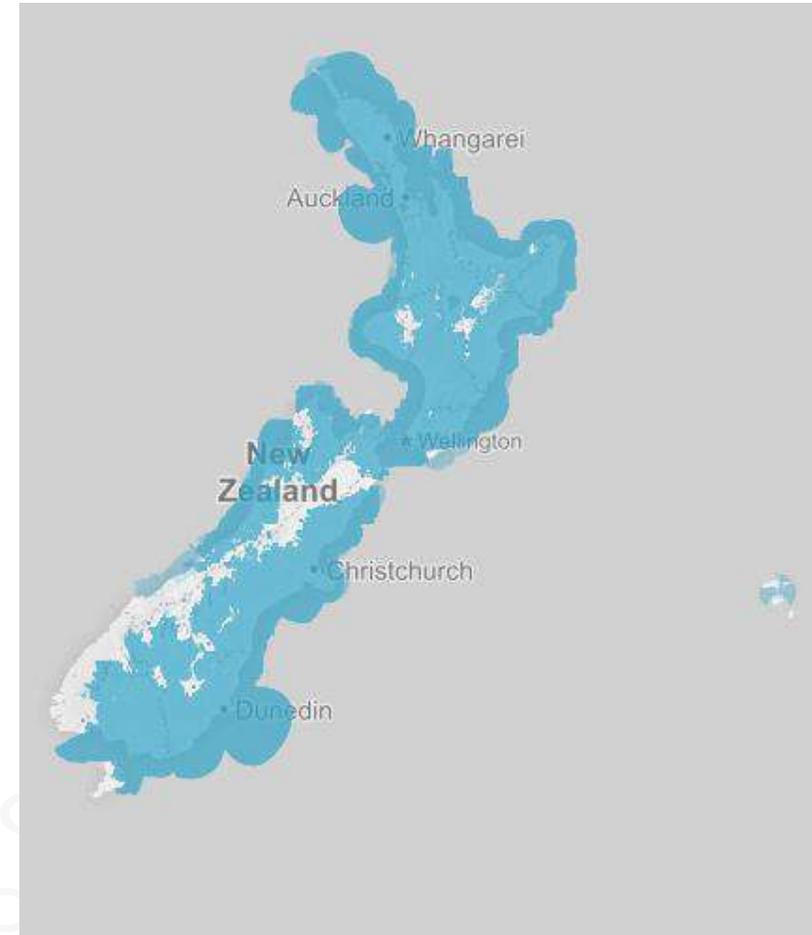
- \$150M from Crown Infrastructure Partners
- \$75M from Mobile Network Operators – Spark, Vodafone, 2degrees
- A further \$100M expansion programme

Wireless Broadband Coverage

RBI1 Coverage 2016



RBI2 Coverage 2022



National Broadband Map - <https://broadbandmap.nz/>

About the RCG

- The Rural Connectivity Group established in 2017 will build the 4G broadband and mobile infrastructure required under RBI2 and MBS funds.
- We partner with Crown Infrastructure Partners (CIP) to ensure the programmes meet the government targets.
- The infrastructure we build will be shared by NZ's mobile network operators – Spark, Vodafone, 2degrees.
- WISPs are encouraged to utilise the infrastructure also.
- CIP manage the funds provided by the RBI2 policy and the mobile network operators are also contributing capital.
- This unique funding model is an innovative way of providing further critical connectivity into rural NZ.
- Industry collaboration will see NZ as the first country in the world where all MNO's will share RAN and antenna on each tower.



Femtocell coverage at Bruce Bay Hall SH6 West Coast

The RCG Deliverables

- Build, operate and maintain a new 4G rural mobile and broadband network
- Secure and build over 400 new sites operating with 4G network
~ 34,000 rural households covered
- Build a further 54 new 4G sites
~ 2500 more households covered
- 100 Tourist locations provided with connectivity
- Mobile coverage along lengths of 32 State Highways
- A wholesale backhaul & co-location service
- Operate and maintain the new network
- Finish the build programme by 2022 for \$225M
- Expansion programme yet to be finalised with CIP



Where are we up to?



- **Site Acquisition Well Underway**

- 323 sites under active site acquisition
- 77 leases secured
- 79 resource consents granted
- 61 sites with both lease and RMA
- Supported by ongoing engagement

- **Build Ramping Up**

- Build partners – Downer, Connect8, Broadspectrum
- 100+ sites in design
- 6 sites built and operating 3G colo
- 20 currently in build process – for June switch on

- **Operations Developed**

- Wholesale service launched for co-location
- Backhaul co-location process
- RAN supplier negotiations completed
- Network/OSS readiness commenced
- 3G/4G integration into MNO's - project well underway
- Implementing finance and build cost systems

What's coming up?



Sites Live Now

- Haast
- SH6 - Roaring Billy, Bruce Bay, Wilderness lodge
- Lake Wahapo
- Raurimu
- Kaihu

June Sites Live

- **Northland** – Marua, Fisher Riley, Pipiwai, Kaiatea Road, Waimamaku Valley
- **West Coast** – Ruatapu, Inangahua, Rapahoe, Charleston, Tatara
- **Southland** – Limehills, Otahu Flat
- **Auckland** – Te Arai, Kaipara Coast Highway
- **Taranaki** – Uruti
- **Selwyn** – Cass
- **Wairoa** – Waihua Beach

Industry Collaboration



- Spark, Vodafone and 2degrees submitted a joint bid to the RBI2 and MBS
- Months of collaboration and sharing of sensitive network information
- Acknowledgement that no single party can deliver the programmes
- Absolute belief in the benefits of coverage for rural NZ and for the aspirations of “NZ Inc”
- Contribution of \$25M capital from each party – adding \$75M to the \$150M allocated from the Telecommunications Development Levy
- Millions more spent on preparing their core networks for 4G voice calling
- All three have gifted 700MHz spectrum for the RCG network
- Providing options from their own networks for backhaul transmission
- Suggested that WISPs have access to the infrastructure – RCG co-location service
- Contributing engineering resource to support the RCG network design
- One senior executive from each company sits on the RCG Board, supporting RCG in its deliverables
- RCG working very closely with **ALL parties** that have infrastructure in rural locations – WISPs, Police, Kordia, Team Talk, WiFi Connect, DoC and many more



What are we doing that's different



- **Power**
 - Robust power supply can be scarce
 - Working closely with power companies – line ownership, line specification, easements
 - Alternative power generation
 - Redflow power systems with HiTech – Zinc Bromide
- **Tower**
 - Innovation in foundation construction
 - Pole size and construction
 - Ease of installation in remote and rugged terrain
 - Cost effective engineering design
- **Transmission**
 - Fibre is scarce where we are going
 - Fibre first, DMR where possible and then satellite
 - RCG to secure managed backhaul to 24 POI
 - Working with WISPs, Kordia, Police etc

Community involvement



- **Councils**
 - Priority project within Councils
 - 48 Councils with 4 or more sites – all presented to
 - Close working relationships with Council staff developing
 - National Environmental Standards utilised
 - Assistance with local matters of interest
 - Council owned land considered for sites where appropriate
 - Council communication channels utilised
- **Iwi**
 - Proactive Iwi engagement even for permitted activity status
 - Iwi and Heritage NZ joint site visits
 - Kaitiaki monitoring as required
 - Standard Heritage NZ Accidental Discovery Protocols
- **Community**
 - Communications Plan as appropriate to site
 - Collateral Suite

Ngati Kuri Collaboration



- Connectivity supports Ngati Kuri long term development plans
- The Iwi contacted RCG early on to assist with the programmes and continue to be proactive
- Have facilitated land access with zero rental
- Have provided approvals to Council, DoC and Heritage NZ complicated RMA's made much easier by Ngati Kuri support
- We are all very keen to get the towers at Cape Reinga, Te Pahi and Waitiki Landing built and operational to support Ngati Kuri's tourism and development goals.



Connect Tararua



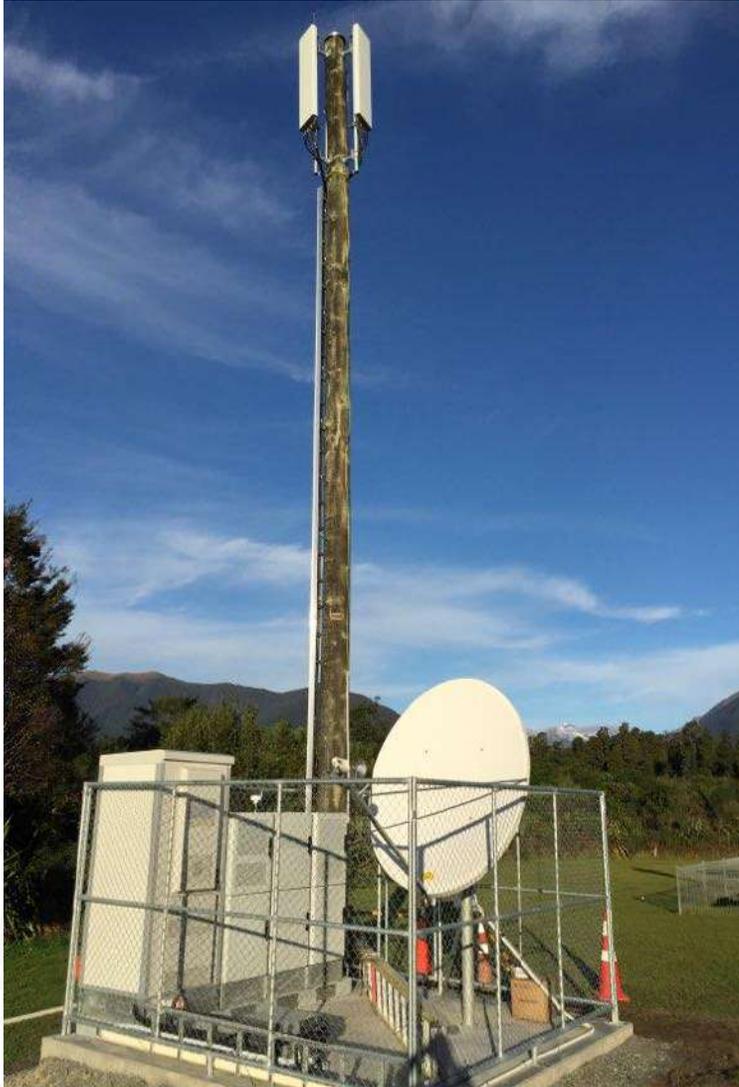
Mel Poulton – Connect Tararua

"Our plan is to reduce the financial outlays per site enabling the investment to stretch further."

"We now have community champions throughout the district to undertake some baseline work for the project in their own communities," Mel said.

"The need is so great across the district that when those frustrated by poor connectivity services hear about Connect Tararua, there is a natural motivation to become involved."

Its all about community outcomes



Haast Police Officer, Senior Constable Paul Gurney

Haast Police Officer, Senior Constable Paul Gurney, has commented “we certainly have seen a lot of traffic stopping in Haast to use the coverage – plenty of tourists, contractors and roading workers, and other police officers. The word is out that we have coverage here and so it’s being well used”.

“We are getting called out to jobs a lot quicker and able to respond so much faster. A couple of months ago there was a crash on the Haast bridge, where a car towing a caravan was nearly blown off the bridge due to extreme winds that day. We were called at the time it was happening, and able to respond immediately – whereas before we had the mobile tower, it would have taken someone 5 or 10 minutes to drive and get to a phone and make the call to us”.

Kia ora koutou – patai?

