

Registration of Interest - Support

MBIE Ultra-Fast Broadband 2, Rural Broadband Initiative 2, Mobile Black Spot Fund

PREPARED BY: Ashburton District Council PO Box 94 ASHBURTON 7740	SUBMITTED TO: Ministry of Business, Innovation & Employment PO Box 1473 WELLINGTON 6140
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Introduction

Ashburton District Council welcomes the opportunity to submit its Registration of Interest (ROI) – Support for the Ultra-Fast Broadband 2 (UFB2), Rural Broadband Initiative 2 (RBI2), and Mobile Black Spot Fund (MBSF) initiatives. This ROI is made on behalf of Ashburton District Council alone to fulfill the requirements for this registration process.

1. Background Information

Ashburton District Council is the territorial authority for the Ashburton District in mid Canterbury. As of the 2013 Census, the population for the district was 31,041 (up 13.4% from 2006 Census) and projected to increase to 38,000 by 2023.¹ There were 12,396 occupied dwellings counted, with 73.3% of households having access to the internet and having a median household income of \$63,100.² Total International net migration figures show an increase of 188 permanent and long-term immigrants in the year to March 2015, which is showing steady increases since 2013.³

The Ashburton District covers over 6,175 square kilometres from the eastern coast to the foothills of the Southern Alps, and from the south bank of the Rakaia River to the north bank of the Rangitata River. The district is distinctly a flat area, with little variance in topography for most of the townships and rural settlements aside from a few high-country farming properties and the Mt Hutt Ski area that fall within the boundaries of the Southern Alps region.

Traditionally a sheep and grain growing district, the increase in the use of on-farm irrigation and a subsequent change in land-use led to the adoption of the Canterbury Water Management Strategy resulting in more dairy farming and seed crops, and a continued growth in primary product processing. Almost a third of Ashburton District's GDP comes directly from dairy, meat, arable and crop industries, with a recorded \$1.64 billion in the year up to March 2013 (6.9% of GDP for Canterbury region and 0.8% of national GDP).⁴ GDP for the region peaked at 13.3% in the year to March 2012, but with recent falls in dairy prices this growth has declined to an estimated 1.6% for the year to March 2015.⁵

There are 4,892 businesses in the Ashburton District, with the majority being in the Agriculture Forestry and Fishing category, followed by Real Estate, Construction, Financial & Insurance Services, and Manufacturing categories. Industries within Ashburton District require high quality connectivity to ensure business growth.

¹ NZ Statistics. 2013 Census Data

² Ibid.

³ Infometrics. Quarterly Economic Monitor, March 2015.

⁴ NZ Statistics. 2013 Census Data

⁵ Infometrics. Quarterly Economic Monitor, March 2015.

2. Rural Areas of Prioritisation for Connectivity

Council has identified two priority areas for increased connectivity to be considered – both of which are zoned as rural areas. One is the township of Methven (main tourist town for Mt Hutt ski field) and the other is the new residential subdivision of Lake Hood. Neither communities have UFB fibre connections, although backhaul fibre goes to each township's boundaries. There are internet connections mainly through ADSL and a small amount of VDSL copper wiring.

The statistical information for both townships is as follows:

Lake Hood (Meshblock 2744100)

Census 2013

Number of people	213
Number of households	75
Median household income	\$125,000
Households with internet	72 (72 households stated)
Percentage of households with internet	100%

There are 38 businesses listed, the majority being real estate/rental agencies followed by agricultural and then financial/administrative services. There is only one retailer in the area. No GDP per capita data is available and there are no health care facilities.

Methven (Meshblocks MB 2752201, MB 275220, MB 2752300, MB 2752401, MB 2752402, MB 2752501, MB 2752502, MB 2752503, MB 2752600, MB 2752700, MB 2752801, MB 2752802, MB 2752900)

Census 2013

Number of people	1707
Number of households	669
Median household income	\$65,000
Households with internet	513 (645 households stated)
Percentage of households with internet	80%

There are 154 businesses listed, the majority being accommodation and food service, followed by real estate/rental hiring services, construction, agricultural, retail, and professional scientific and technical services. Again, no GDP per capita is available. There are eight health care and/or social service agencies in Methven.

3. Council Rationale for Increased UFB2/RBI2/MBSF Support

Ashburton District appears to have wider-reaching coverage for wireless connection according to the map in Appendix 1 (Ashburton District Canterbury Broadband Coverage) when compared to adjacent districts. However, because of the flat topography, the coverage can be patchy and there is a need to provide better quality wireless connection throughout the district via enhancement to existing services (additional backhaul fibre and additional cell towers and/or relays). Service providers within Ashburton District and Federated Farmers have stated there is a need to enhance the current levels of bandwidth from 5MB/sec to 10MB/sec in the immediate future, with a view to raising this to 30MB/sec within a year.

Mobile Black Spots

It has been recorded by NZTA there are mobile blackspots along SH77, which goes along from Methven to the Rakaia Gorge. This becomes critical for tourists needing GPS to reduce the road crash incidences, and to ensure emergency services are able to reach those in need, particularly during the peak tourist season around the Mt Hutt ski areas and Methven. During the farming year, emergency services and rural fire volunteers require high quality wireless technology to be able to respond to callouts for farm worker injuries sustained whilst on remote paddocks and for GPS emergency mapping during rural fire events.

Agricultural Economy

Federated Farmers have clearly indicated there is a critical need for enhanced cellphone coverage as the farming community is heavily reliant on digital technology for sustainable farming practice and for efficient compliance monitoring required by authorities such as Environment Canterbury. Wireless coverage is critical for the scientific and technical consultants that support agricultural industries for compliance or quality assurance. The advance of modern farming technology has been a key factor in Ashburton District making the most of the on-farm land irrigation advantages, resulting in the increase in GDP for Canterbury after the earthquakes in 2010/2011. Most of the big farming machinery such as the headers, tractors, spreaders and fertiliser trucks are now reliant not only on GPS technology but also highly reliable wireless broadband for real-time precision farming applications. Hence, in order for the farming community to have business sustainability and maximise the returns on the investments made by the Government and private sectors, better quality cellphone coverage is essential. This means the targets set by providers such as Spark for converting customers from 3G to 4G mobile data protocol would be fully endorsed and supported by the farming community throughout the district.

Migrants & Newcomers

Another key factor to consider is the increase in migrants and newcomers to the Ashburton District, either through the agricultural industry or through the professional services sector. In order to attract and retain these newcomers, good connectivity is essential. It makes economic sense to increase the retention of urban professionals to the region (such as those likely to settle in Lake Hood) by offering the flexibility of being able to work remotely via wireless technology. Farmers actively recruit migrant workers to the region and connectivity will be a key factor in attracting these workers and their families to settling in the district. The use of broadband or wireless services provides social support for newcomers and migrants by providing a connection to family and friends from their places of origin and engaging with the local community through social media.

4. Proposed Council Assistance to Support UFB2/RBI2/MBSF Connectivity

Consent application processes:

Council agrees to provide support via streamlining its consenting processes for suppliers of UFB2 or RBI2 backhaul fibre. This includes issuing global consents for Corridor Access Requests, approving shallow trenching consents where appropriate, and considering consents for UFB infrastructure on existing poles within the specific areas of deployment.

Availability of infrastructure and land parcels:

Appendices 2-10 show the infrastructure assets that Council owns in Lake Hood and Methven which could assist in the deployment of additional fibre and/or relay infrastructure. As Lake Hood is a recent development there are no unused or disestablished infrastructure items such as old gas lines or pipes.

Council agrees to work with the suppliers to identify appropriate Council-owned land in the wider rural district for the installation of infrastructure mechanisms such as cellphone towers. Council owns a large amount of land throughout the district including road reserves, reserves, commercial property and various gravel pits where infrastructure could be placed in accordance with RMA and NZTA regulations.

Uptake and awareness assistance:

Council is fully committed to assisting any marketing and/or promotional campaigns to businesses, residences and rural farms for any service provider through our District Diary newsletter and/or social media campaigns.

Co-investment with the Crown:

Council cannot provide any financial support due to the impact on rates and the inability to include this project in the adopted 2015-2025 Long Term Plan for consultation. The potential customers for the additional services would be paying users in Methven and Lake Hood.

5. Final Comments

Ashburton District Council is appreciative of being able to make this submission for the Registration of Interest – Support for these connectivity initiatives. We have not separated the requirements for each separate initiative as we see the solution being a combination of the tactics proposed, and our support and assistance remain the same regardless of the option considered. As such, we have made a submission taking a holistic approach to connectivity issues in the region.

Council is part of the Canterbury Mayoral Forum (CMF) chaired by Dame Margaret Bazley. The CMF is about to launch the Canterbury Regional Economic Development Strategy (CREDS), of which we have contributed to and are taking the lead in the work programme around Newcomers and Migrants Settlement Support. We see the connectivity issue as an important factor in helping the Canterbury region achieve the goals in the strategy, and fully support the work Timaru District Council is doing around Digital Connectivity. (Refer Appendix 11 for Dame Margaret's letter to David Smol on behalf of CMF.)

We are aware that Damon Odey, Mayor of Timaru, is making a separate submission on taking a regional approach to the UFB2, RBI2 and MBSF initiatives. Ashburton District Council fully supports this approach and see it as a logical alignment to the CREDS work programme and would welcome the opportunity to work with Canterbury territorial authorities to this end.

Ashburton District Council does not wish to be heard in support of this submission.



A DALZIEL
Chief Executive Officer

APPENDIX 1: ASHBURTON DISTRICT BROADBAND COVERAGE

APPENDIX 2: LAKE HOOD INFRASTRUCTURE – SEWERAGE

APPENDIX 3: LAKE HOOD INFRASTRUCTURE – SEWER MANHOLES

APPENDIX 4: LAKE HOOD INFRASTRUCTURE – STORMWATER LINES

APPENDIX 5: LAKE HOOD INFRASTRUCTURE – WATERLINES LATERALS

APPENDIX 6: METHVEN INFRASTRUCTURE – SEWERAGE

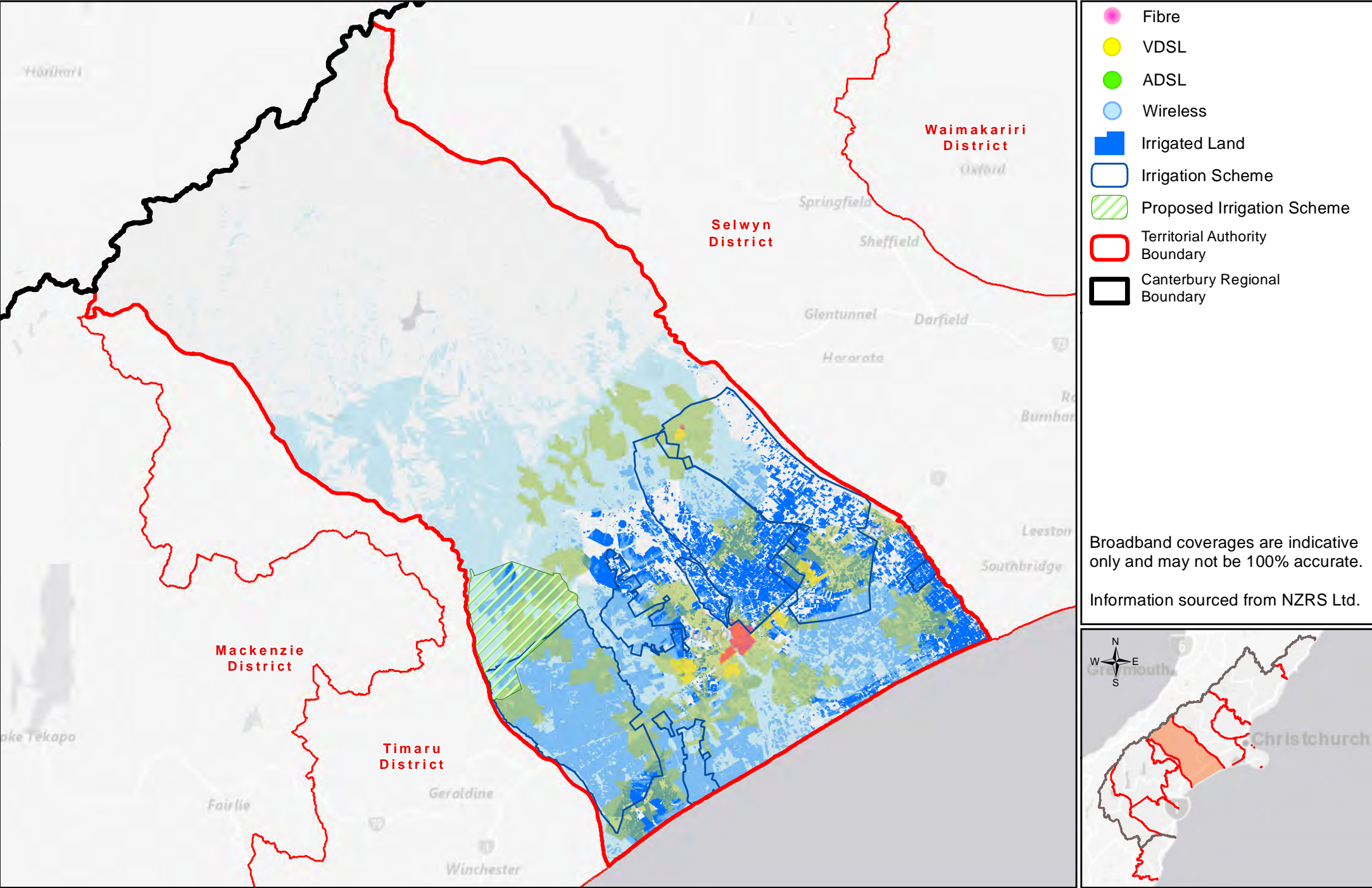
APPENDIX 7: METHVEN INFRASTRUCTURE – SEWER MANHOLES

APPENDIX 8: METHVEN INFRASTRUCTURE – STORMWATER LINES

APPENDIX 9: METHVEN INFRASTRUCTURE – STREET LIGHTS

APPENDIX 10: METHVEN INFRASTRUCTURE – WATERLINES LATERALS

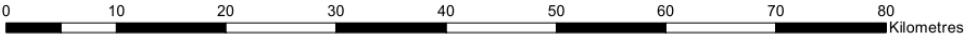
APPENDIX 11: LETTER TO D SMOL FROM DAME MARGARET BAZLEY



Broadband coverages are indicative only and may not be 100% accurate.

Information sourced from NZRS Ltd.

Ashburton District
Canterbury Broadband Coverage



LakeHood Infrastructure



















19 June 2015

David Smol
Chief Executive
Ministry of Business, Innovation and Employment
PO Box 1473
Wellington 6140
david.smol@mbie.govt.nz

Dear Mr Smol

Selection process for Ultra-Fast Broadband 2, Rural Broadband Initiative 2, and Mobile Black Spot Fund programmes

Territorial authorities in the Canterbury region will submit Registrations of Interest (Support) in these initiatives. The Canterbury Mayoral Forum is concerned, however, that what may be lost in the process is an overview of regional investment opportunities and priorities, and investment criteria that will maximise the return on this investment to NZ Inc.

On 18 December 2014, the Forum wrote to Hon Amy Adams, Minister for Communications, and Hon Steven Joyce, Minister for Economic Development, about digital connectivity as a critical investment for sustainable regional economic development in Canterbury (copy of letter attached). We signalled our desire to work with the Rural Broadband Initiative Regional Stakeholder Engagement Programme and the National Advisory Committee to support the design of further investment in fast broadband and mobile coverage in rural areas.

Mayor Damon Odey (Timaru District Council) met with Hon Amy Adams in Timaru on 9 June 2015, and reiterated the importance of fast rural broadband to economic development in Canterbury.

You will recall that digital connectivity was also a theme of our presentation to MBIE and Treasury senior leadership teams at Lincoln on 8 April 2015.

As the Mayoral Forum has been developing its regional economic development strategy for Canterbury (due to be released on 28 August 2015), we have repeatedly heard about the importance of fast broadband in rural Canterbury in our workshops and conversations with partners and other stakeholders from the farming, manufacturing, tertiary education, business, transport and tourism sectors.

We repeatedly hear that a barrier to precision agriculture and improved productivity is patchy coverage, unreliable connections and slow data download (and especially upload) speeds.

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Fast broadband is a critical enabler, for example, of:

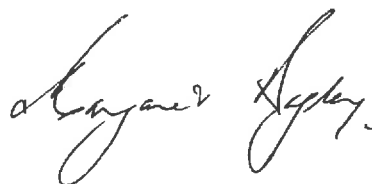
- freshwater management
 - better irrigation scheduling, e.g. soil moisture monitoring and better use of weather information for precision irrigation
 - more efficient operation of application systems; e.g. variable rate irrigation and remote control of systems
- farm environment plans and the Matrix of Good Management (nutrient loss management)
- farm management generally, including use of robotics, drones and stock management
- access to education, training, health and emergency services (including rural fire services)
- civil defence and emergency management
- attracting skilled professionals to our region; e.g. the ability to work remotely
- social connectedness – particularly important to attract and retain newcomers and their families to the agricultural workforce in our region
- regional visitor strategy – and enhanced experiences for visitors to our region.

Canterbury Maps has worked with NZ Registry Services and Irrigation New Zealand to compile the attached set of indicative maps for the Canterbury regional council area and its ten territorial authorities. These maps indicate existing cellular and mobile coverage as best we can ascertain this, with an overlay of current and proposed irrigated land.

Our point is that, at least in the Canterbury region, *the greatest return on investment in fast broadband (fibre or cellular) in rural areas will come from enabling more efficient water management and precision agriculture*. Can you please ask your staff to take this into consideration as they analyse Registrations of Interest and shape up advice to Government on investment decisions.

As well as registering our interest in the RBI2 etc., Mayor Damon Odey (Timaru District Council) on behalf of the Mayoral Forum facilitated a workshop on 18 June 2015 with the managing director and senior staff from Spark NZ on the potential represented by 4G mobile broadband in Canterbury. Other participants included Canterbury economic development agencies, Electricity Ashburton, Alpine Energy, farmers, Fonterra, Federated Farmers, Environment Canterbury and CPIT. We are agreed that improving digital connectivity is critical to our region's economic development. Our discussions with Spark have not lessened our need for central government investment in broadband infrastructure in Canterbury.

Yours sincerely



Dame Margaret Bazley ONZ DNZM Hon DLit
Chairperson

Attachments:

- Canterbury Mayoral Forum letter to Minister, 18 December 2014
- indicative maps of Canterbury broadband/mobile coverage and irrigation

18 December 2014

Hon Amy Adams
Minister for Communications
Parliament Buildings
Private Bag 18041
Wellington 6160

Hon Steven Joyce
Minister for Economic Development
Parliament Buildings
Private Bag 18041
Wellington 6160

Dear Ministers

Rural connectivity in Canterbury

I am writing on behalf of the Canterbury Mayoral Forum to endorse the importance and urgency of the Rural Broadband Initiative, and to signal our desire to work with central government to facilitate this.

Background and context

The Canterbury Mayoral Forum is developing an action plan to maximise the economic growth of Canterbury and position this for when the Christchurch rebuild peaks around 2016-2017. Our briefing to the incoming government emphasised the regional and national importance of economic growth from agriculture and focused on:

- freshwater management as an economic driver
- value-added production and the development of secondary economies
- human and social capital
- the regional transport network.

At a workshop on 4 December 2014, we discussed a number of presentations on the future of farming over the next 20 years, technology developments and their implications for farming in Canterbury, opportunities arising from the migrant workforce in Canterbury, ensuring a skilled workforce, and current and planned irrigation infrastructure.

At a second workshop on 26 February 2015, we will discuss value-added production, regional transport, Christchurch airport as a gateway, visitor strategy and business sustainability, and re-visit educating a skilled workforce. We will then finalise our action plan, focused on removing barriers to growth in the rural economy of Canterbury.

Connectivity: A key to growth in Canterbury

A recurring theme in the presentations we have considered to date is digital infrastructure and connectivity. This is critical for the rural economy, both on and off farm, and has potential to greatly increase economic growth in the Canterbury region.

Direct, on-farm application includes gathering and using data to support decision making and enable precision agriculture, to mechanise production and increase productivity, and to provide real-time information for water and nutrient management (and thereby enable sustainable agriculture). Efficient use of water with consequent lower electricity costs is a particular benefit.

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Off-farm, connectivity is also critical to:

- expanding learning options in rural schools
- educating and training a skilled workforce, as an enabler of on-the-job/online learning
- providing health services comparable to those available in urban centres
- social connectedness. In particular, because our region increasingly depends on skilled migrant labour, digital infrastructure supports our efforts to attract and retain workers and their families, who are more likely to settle happily in our communities if they can connect easily with family and friends elsewhere.

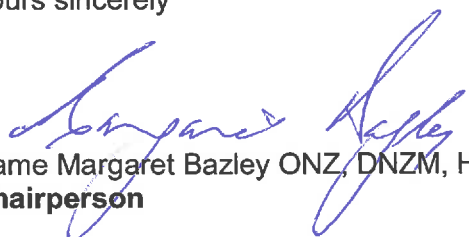
Opportunities in Canterbury

In our discussion on 4 December, Canterbury Mayors:

- reflected that investing in ultra-fast broadband in rural areas with intensive agriculture is likely to yield an economic return many times higher than the same number of kilometres of fibre laid in suburban streets
- noted opportunities created by the rollout of the Network for Learning in Canterbury schools
- observed that in many of our rural areas, and based on investigations conducted as part of Timaru's bid to the Gigatown competition, part of the solution is cost-effective wireless broadband. In many instances this may be transmitted from rural schools connected to the ultra-fast broadband network, but there needs to be a single template/contract in place to utilise this option quickly and efficiently throughout Canterbury.
- concurred that further investment in point-to-point wireless connectivity into the rural sector is vital for New Zealand to meet its economic and social objectives and to remove the urban-rural digital divide that exists in some of Canterbury's communities.

The Canterbury Mayoral Forum is keen to work with you and with the Rural Broadband Initiative Regional Stakeholder Engagement Programme and the National Advisory Committee to identify opportunities and partnerships to extend the reach of ultra-fast broadband in rural Canterbury. We see this as a key enabler of economic growth and social wellbeing in our region.

Yours sincerely



Dame Margaret Bazley ONZ, DNZM, Hon DLit
Chairperson