MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT
HĪKINA WHAKATUTUKI

Registration Response Form

In response to the Registrations of Interest – Support

Seeking information and commitments from local authorities in support of:

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

Date of this Registration: 1 July 2015

About the Respondent

Our profile

This is a joint Registration of Interest - Support by Northland Inc., Northland Regional Council, Kaipara District Council, Whangarei District Council, Far North District Council and Te Tai Tokerau Iwi Chief Executives' Consortium (together the Respondents) to supply the Requirements.

Item	Detail
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Mihi

Ki te whei ao, te ao marama

Tihei waa mauri ora.

Tenei te kupenga ka rere. Ka rere ki te moana nui, te moana roa, te moana tangotango, te moana uriuri.

Tihei mauri ora

Na reira, kia tuku ano nga mihi ki Ranginui, nga mihi ki Papatuanuku.

Nga mihi hoki ki a ratou kua mene atu i nga tatau o Hine nui te Po.

Na reira e te hunga mate i roto i ou koutou okiokinga e takoto, takoto, takoto.

Ratou ki a ratou. Tatou nga kanohi ora ki a tatou.

E nga mana, e nga reo, e nga mataawaka tena koutou.

Tenei te mihi maioha ki a koutou katoa ahakoa ko wai, ahakoa kei hea, na te hunga ahi kaa o Te Tai Tokerau.

Te mihi e whakatau tenei kaupapa i a koutou, kia tae ta matou tono i a koutou, kia hono a tatou kainga hapori ranei puta noa i Te Hiku o Te Ika ki te ipurangi.

He karere tenei ki a koutou, he karere kotahi no nga Iwi maori o te Tai Tokerau, he karere kotahi na nga momo kawana a nga iwi puta noa te rohe.

Ko te hiahia nui o matou kia mohio koutou a te wawata i roto i nga tangata katoa o Te Tai Tokerau.

Tenei wawata, he hotu manawa ki a matou tamariki hei whakakaha a ratou i nga tau whai muri ake nei. Katahi ratou i haere atu ki te Ao hurihuri kia mau ratou i tetahi pikau rauemi hei oranga hei arahia a ratou haerenga. I tatou whakaaro te rauemi kahure hei hapaitia e ratou he matauranga ipurangi.

Na reira e hoa, ka pu te ruha, ka hao te rangatahi.

Tena koutou, tena koutou, tena tatou katoa.

"..The old technologies are found wanting and the new technologies must be deployed for the good of us all."

In the change from predawn to the world of light, behold it is life from the beginnings of time.

This is the new net being set. Cast to the great sea, the long sea, the sea of our ancestors and the seas of our descendants.

Let us once again give recognition to Papatuanuku and Ranginui for their contribution to our living environment. Let us also be reminded of those who have passed before us through the gateways of Hine nui te Po. Once again our forebears, in your beds of rest we ask you to rest and rest again. Let them be in their sleep and return ourselves to the realms of the living to deal with the issues of the day.

Welcome to the persons of note and those who hold mandates of public office, all of the peoples who reside in our district, we greet you. We send you warm regards from the Tai Tokerau, irrespective of whom you are and where you are from. We send these greetings to you of a unified approach from Tai Tokerau to ensure we have our homes and communities better connected to the world wide web of the internet and associated digital communication systems.

This single message is delivered on behalf of our people by Tai Tokerau Iwi CEO Consortium, representing the Iwi of Tai Tokerau, and by Local Authorities. It is very important to us that this wish for inclusion in the modern world via digital communication systems is understood by all as highly significant to all involved. This aspiration is most deeply held for our children so that as they set forth to the ever-changing modern worlds then within their bags of resources there exists the primary asset of first-hand knowledge of the internet and all of its benefits. We believe this knowledge will be of great assistance to them with the travails and joys of life.

Again we say, the old technologies are found wanting and the new technologies must be deployed for the good of us all.

Table of Contents

Northland's Response 6

Our Commitment To Assisting Deployment 15

Ultra Fast Broadband 2 20

Rural Broadband Initiative 2 30

Mobile Black Spot Fund 32

Our Commitment To Supporting Uptake 34

Declaration 38

Appendices 40

General maps

1- GDP per area unit
2- Households per meshblock
3- Household income per meshblock
4- Population growth per meshblock
5- Businesses per area unit

UFB 2 maps

1- UFB existing fibre
2- UFB population – existing fibre
3- UFB Households – existing fibre
4- UFB Internet – existing fibre
5- UFB Businesses – existing fibre
6- UFB MMUSH existing fibre
7- UFB Key assets – existing fibre
8- Proposed Northland towns for UFB2 deployment

Town maps

Rock and soil maps for Far North District towns

RBI2 maps

1- Rural broadband coverage
2- Population – rural broadband
3- Households – rural broadband
4- Businesses – rural broadband
5- MMUSH rural broadband
6- Internet – rural broadband
7- Place names

Mobile black spots maps

1- Mobile coverage
2- Road accidents
3- Tourism areas
4- Isolated communities
5- Status Cycle Trail July 2014

Northland's response to the Requirements

Introduction

Northland's four local authorities (Far North District Council, Whangarei District Council, Kaipara District Council and Northland Regional Council), together with Te Tai Tokerau Iwi Chief Executives' Consortium (the Iwi Consortium), welcome the New Zealand Government's efforts to improve broadband and mobile coverage across the country. We have partnered to submit this Registration of Interest - Support to the Ultra-Fast Broadband 2 (UFB2), Rural Broadband Initiative 2 (RBI2) and Mobile Black Spot Fund (MBSF) programmes. By working collectively, we come to you with a single voice representing the best interests of Northland residents, businesses and tourists.

Northland Inc, the regional economic development agency, is co-ordinating our efforts and remains your first point of contact.

Background

Northland is a long narrow peninsula of 13,286 square kilometres, rich in natural assets and historical and cultural heritage. It is home to 166,000 people , with 50% living in rural, often remote, locations.

Whangarei, its largest city, was the first city in New Zealand where fibre broadband was deployed. It now has the highest level of fibre uptake in the nation, at around 17%. This shows Northlanders have an appetite for higher speed broadband and sets a precedent for the possibilities opened by fibre.

Northland's economy is very diverse, with tourism, farming, forestry and other resource-based industries being key growth drivers, along with the Marsden Point oil refinery and related processing. Yet there is significant scope to increase incomes and employment in the region. Central government has recognised the untapped potential that Northland offers and the need to create wealth and employment to improve the standard of living for all Northlanders. The Te Tai Tokerau Northland Regional Growth Study is the first study of its kind in New Zealand. It provides the region and central government with a shared view of the potential of the region and its local communities.

The recently-completed Te Tai Tokerau Northland Growth Study provides insights into the region's unrealised economic potential. Many of the growth opportunities relate to growing resource-based industries through innovation, export and skills development. Northland has been lagging behind in both economic and social indicators, but "deepening digital connection" is identified in the study as a cross-cutting opportunity for Northland to realise potential investment and industry opportunities. The report also states that "ICT and broadband infrastructure in Northland needs to be further enhanced as it provides a platform to add value to primary and other industries in the region by enabling improved performance measurement, resource management, and connections to market".

[1] Te Tai Tokerau Iwi Chief Executives' Consortium is a high trust relationship forum where chief executives from iwi entities across Te Tai Tokerau meet. The relationship is based on shared whakapapa, tikanga and history. The Iwi Consortium works collectively on shared approaches to joint issues and opportunities.

[2] Census of Population 2014, Statistics New Zealand

[3] MartinJenkins, Feb 2015 for the Ministries of Business, Innovation and Employment, and for Primary Industries

"Turning around Northland's fortunes so we thrive in paradise".

The Te Tai Tokerau Northland Regional Growth Study recognises the importance of raising Maori economic performance. The Maori economy is key to Northland's future success. The Maori asset base was estimated at $2.4 billion in 2012 and will continue to grow as Treaty Settlements are finalised. The Iwi Consortium's desired outcome is for "the Te Tai Tokerau Maori economy to drive economic growth and prosperity in Northland". The concept of economic independence or self-sufficiency is a fundamental principle for Maori. The Economic Growth Strategy for the Te Tai Tokerau Maori Economy [4] articulates five intervention platforms, namely: advocacy and policy, research and innovation, education and promotion, leadership platform and collaborative growth. Improved access to internet for many iwi and Maori communities is essential to move closer to this desired outcome.

Our vision for Northland

At a recent strategic planning session, councillors and commissioners from all four Northland councils reinforced their commitment to working together for Northlanders towards the vision: "Turning around Northland's fortunes so we thrive in paradise".

In setting this vision, the councils of Northland acknowledge not only where we want – and need our region to be, but also where we are now, and that moving to that future vision is a journey that will span generations.

We are committed to working in partnership for the wellbeing of our people and consequently, Northland's councils have chosen: "Together lifting the capacity, capability and overall wellbeing of our people and our place" to support our vision.

We also acknowledge that there are no quick fixes but there are initiatives and enablers that will facilitate our collective success – among them, the delivery of better broadband and mobile phone coverage.

Improving digital reach and capability is a focus area for us, and supporting broadband is one of our key collaborative projects, enabling three of the four objectives of the councils:

- Building a safe and healthy social environment where families thrive
- Growing our economy in sustainable ways
- Providing a foundation of good infrastructure.

In coming together with the Te Tai Tokerau Iwi Chief Executives' Consortium, we share a collective vision and a collective commitment to the sustainable success of our people and our region. In the context of this Registration of Interest, we are committed to addressing the demonstrable digital needs of our people and our region together.

Nā tō rourou, nā taku rourou ka ora ai te iwi.

4. Feb 2015

Our collective vision will be enabled by the following levels of service:

- For our towns likely to benefit the most in terms of business growth and community development to be served by fibre under UFB2, and other towns to be served in the near-to-medium future
- For all our rural areas to receive no less than 5Mbps coverage under RBI2
- For our most isolated communities, our most popular tourism destinations and our most dangerous stretches of road to have reliable mobile phone coverage.

Investment in telecommunications is both an opportunity and a prerequisite for a region that is yet to realise its full potential. We are interested in supporting all three programmes funded by the Government, namely the Ultra-Fast Broadband 2, Rural Broadband Initiative 2 and Mobile Black Spot Programmes.

Our support comes in the following forms:

- **A commitment to support take-up of fibre services in the proposed towns and promote its applications in order to reduce demand-side risks**
- **A commitment to reduce regulatory barriers and roadblocks to deployment**
- **A commitment to reduce costs of deployment, such as making available council-owned properties to locate telecommunication equipment**
- **Our offer of support common to all three programmes is detailed later in this document.**

The Iwi perspective - A Tikanga Perspective

In this section, the Te Tai Tokerau Iwi Chief Executives' Consortium shares their views – A Tikanga perspective. The Te Tai Tokerau Iwi Chief Executives' Consortium is a high trust relationship forum where chief executives from Iwi entities across Te Tai Tokerau meet. The Consortium recently released the tikanga-based economic growth strategy for the Tai Tokerau Maori economy, He Tangata, He Whenua, He Oranga, which was endorsed at its February 2015 launch by the Ministers for Economic Development, Primary Industries and Maori Development.

The iwi entities involved in the development of the strategy are:

- e Runanga Nui o Te Aupouri Trust
- Te Runanga o Te Rarawa
- Te Runanga o Ngai Takoto
- e Runanga o Whaingaroa
- Te Runanga a Iwi o Ngapuhi
- Ngatiwai Trust Board
- Te Runanga o Ngati Whatua.

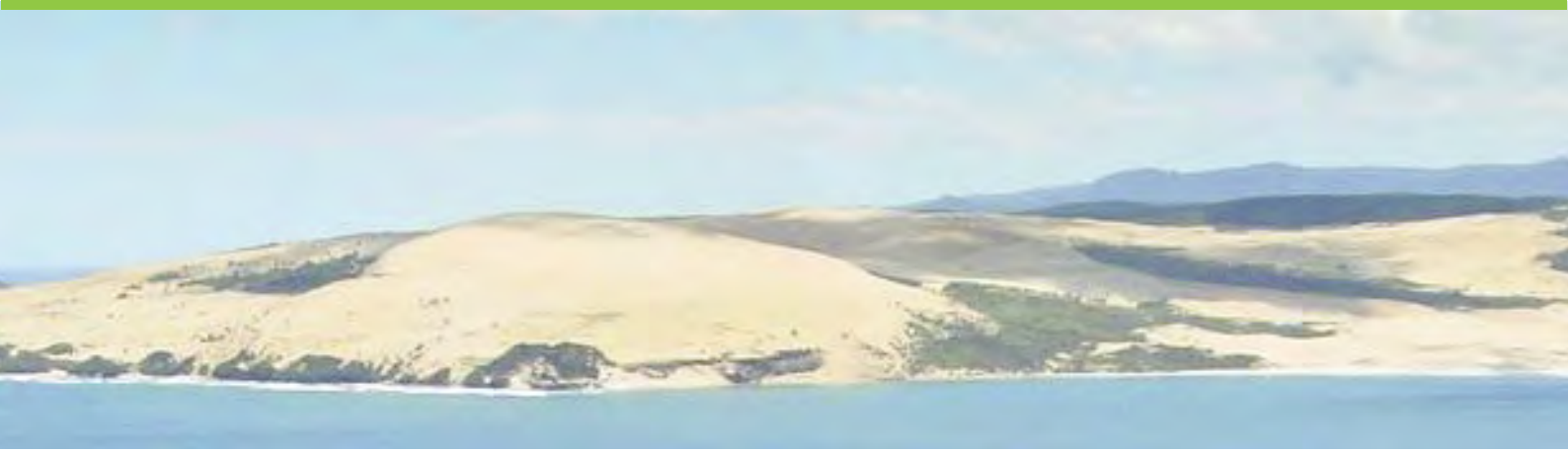
The Iwi Consortium is requesting that the Government looks favourably on investment in digital connectivity for Northland. Our view is that the justification for investment is an issue of equity, well-balanced sustainable economic growth and generational change.

The social and economic indicators of whanau in our region are a glaring indictment of the need for change, the change that could be generated by an injection of equity. This will enable whanau to rise on the same tide as those who are privileged by access to internet and their ability to pay for it.

Access to affordable internet is a key enabler to Tai Tokerau Maori contributing as Maori to the social and economic well-being of our nation, as well as enjoying global digital citizenship.

Iwi support for this Registration of Interest is premised on our collective expectation that the living obligations of partnership under Te Tiriti will weigh the needs of our people and this region accordingly.

As partners with the Crown under Te Tiriti, we ask that Tai Tokerau is prioritised on the basis that it is part of our shared vision for our people when we first embarked on this journey of nationhood.



Stocktake of the Te Tai Tokerau Maori economy

Evidence [5] underpinning *He Tangata, He Whenua, He Oranga* found that the Te Tai Tokerau Maori economy has the characteristics of a developing economy within a developed economy; that is:

- lower levels of human capital - 60% of Northland Maori leave school with little to no qualification
- higher levels of poverty and under-nutrition - the average household income for Northland Maori is $143/week less than for non-Maori
- predominance of agriculture and lower levels of industrialisation
- lower income per capita at $15,310, which is 60% less than for non-Maori in Northland and 80% less than for non-Maori in New Zealand.

For Maori, its people are a critical part of the economy. We view economic growth that does not result in improvement in the health and wellbeing of our people to be of questionable value for Maori [6].

Growing the Maori economy

Critical to growing the Te Tai Tokerau Maori economy is equitable access to a future-focused education within a digital learning environment that is proven to work for Maori as Maori [7]. This directly impacts on lifting the levels of human capital at source, thus increasing the earning potential in Maori households. This is consistent also with the strategic priorities identified in *He Kai Kei Aku Ringa*, the national Crown/Maori economic development strategy released in 2012.

The productivity of an economy is determined by factors such as infrastructure which enables efficient access to broader markets in New Zealand and overseas, continued Maori innovation and higher labour market efficiency. A more competitive economy is one that is likely to grow faster over time [8].

The rollout of UFB and RBI infrastructure to the areas where Tai Tokerau Maori live and work is a fundamental pre-requisite to growing the Tai Tokerau Maori economy and making it more competitive.

Shifting the profile of the Northland economy

It is our view that Maori can and want to increase their contribution to the region's and the nation's economy. If the income per capita of Te Tai Tokerau Maori was lifted to the same levels as for non-Maori in Northland, that alone would represent an annual increase in value add to the economy of $439 million p.a [9].

This economic unlock will not happen without the appropriate investment in infrastructure.

This needs to be coupled with efforts to ensure our vulnerable and low income families and communities can afford access.

5. BERL Economic Stocktake of the Taitokerau Maori economy Sept 2013, April 2014
6. M. Durie; 2002
7. He Tangata, He Whenua, He Oranga(2015)
8. Source: World Economic Forum's set of pillars for determining competitiveness
9. BERL

"We cannot solve our problems with the same thinking we used when we created them". -Albert Einstein

The argument for access

In the Far North district alone, 80% of the households without internet are Maori households and for the region, it is 73%. Those households are dispersed across the region and are not concentrated within townships, therefore rolling out RBI2 across all populated rural areas will depend on a reliable fibre backhaul network looped from Whangarei via Kerikeri, Kaeo to Kaitaia then through Kaikohe, westward down to Dargaville back to Whangarei.

The argument for equity

Affordability is vital if Maori in Te Tai Tokerau are to benefit from digital connectivity. Analysis [5] tells us that Maori household outgoings exceeds total Maori household income by $210m per year, and that 26% of that income comes from Government support. The significant economic uplift that could shift Maori households from a state of dependence to economic independence will only be achieved if telecommunication services are made accessible and affordable to most Maori families.

One of the benefits of Whangarei being the first UFB city in the country is that a cluster of six schools, spanning primary through to secondary school learning, have been able to pilot digital immersion classes broadly based on the successful Manaiakalani education programme. This has proven to significantly lift the education achievement and engagement of children in low income Maori and Pacific Island communities. Students piloting the programme declared that having a digitally-enabled learning environment was like having a library on their desk. On-task behaviour in the class is up, while attendance records in the senior pilot classes have completely flipped to be the highest they have ever been across the cluster of schools.

One of the key aspects of this learning environment is that learning occurs anytime, anywhere and at any pace because pupils have access to the internet at home. Children still engage in their learning away from the school gates, and absence due to sickness does not impact on the children's ability to keep up with class work. The roll-out of central government's programmes brings the potential to widen access to that type of learning environment to many students in Northland, and to lift academic achievement for Maori.

The argument for generational change

Recent research released jointly by Te Whare o Awanuiarangi and Nga Pae o Te Maramatanga on Strategies for Maori Development, titled He Mangopare Amohia, stated that: "There cannot be a sustainable social and economic revolution for Maori without a simultaneous or prior educational revolution".

Economic development approaches that are purely focused on sector development, or do not acknowledge the key role of effective compulsory education, are flawed. This is in line with the assertion by Iwi that the conversation around economic growth needs to change.

We add to our case the voices of the students and teachers in the Whangarei cluster of decile 1-4 schools who are piloting digital immersion classes in the hope that their stories will one day be shared by their fellow students in Te Tai Tokerau.

[10.] Source: Statistics NZ 2013 commissioned by 20/20 Communications Trust; link http://2020.org.nz/resources/community-ict-research/#2013-census
[11.] He Mangopare Amohia Strategies for Maori Economic Development; Te Whare Wananga o Awanuiarangi, Nga Pae o Te Maramatanga
[12.] Te Puawai Digital Immersion Cluster - Milestone Report May 2015

"We can access more varieties of information because we can look it up on the internet"

"That you are lucky to be in a class like this"

"Using a chromebook is helping me learn because when I don't understand something I just look it up but without a chromebook I might end the class being confused"

Student voices

"I love having a blog and I feel really happy and proud that I can put my work out there knowing that people will enjoy it"

"They are more engaged in taking part in the classroom learning".

Teacher Voices

"More time spent on learning rather than copying writing off the board. Huge student 'buy in', high interest. More teacher time with students and they are able to access information immediately.

What Northanders tell us

As a result of the Government investment in fibre in large parts of Whangarei as part of the UFB1 programme, Whangarei has become a real success story for fibre. According to the latest figures from NorthPower, 17% of households where fibre is available have signed up to fibre services. Whangarei District Council has been very active in supporting fibre up-take, as illustrated in the Digital Enablement Plan section.

The availability of fibre has brought tangible benefits to Whangarei, as demonstrated by these case studies:

- The first business in Whangarei to get connected to ultrafast broadband was local television station Channel North. News producer Raewyn Barry says the station is now able to upload footage to its customers such as TVNZ and TV3 in minutes, rather than hours, when a national news story breaks in the region.
- Another business that has benefited is local printer Jeff Oliver Print. Managing director Dean Oliver says getting UFB in proved a big factor in helping the 12-person firm expand 35 per cent and take on three extra staff. The printer has picked up work from as far away as Christchurch, Australia and the Cook Islands and also took over a local web company, something Oliver says he definitely would not have contemplated if it wasn't for UFB.
- Local eye doctor David Dalziel is another who has been able to work more efficiently, viewing high-resolution photographs of the eyes of diabetes patients online from his own practice, rather than having to access these via the public hospital [13].

An online survey was carried out to better understand Northlanders' satisfaction with current services and their desire for change. This survey, which ran for two weeks to early June 2015, was promoted through media publicity, the four councils' websites and social media, and stakeholder networks such as Northland's Chamber of Commerce member database and Whangarei District Council's hapu partners Te Huinga.

The total of 1,466 [14] responses in a relatively short timeframe shows digital access is very topical for Northlanders.

Of these respondents:

- half responded from home;
- a quarter from their workplace outside home; and
- 20% from their home-based workplace.

Satisfaction

Respondents accessed broadband through different means:

- 75% via a phone line;
- 10% via fixed wireless;
- 4% via a satellite; and
- 4% via UFB (Whangarei only).

When asked about their satisfaction with the service received:

- Only 14% of respondents were satisfied with their current connection;
- 44% were somewhat satisfied; and
- 42% were not satisfied.

Both speed and connection reliability were cited as an issue by 89% and 76% of non-satisfied respondents respectively. As an illustration, a respondent wrote: "*Taken 15 minutes to get to this question*" [this should have been halfway through a five-minute survey].

13. Sunday Star Times 13 April 2014
14. Note responses are not weighted to be representative to the region's population. The responses provide a snapshot of opinions in time

Many commented on lack of speed, as exemplified by the following quotes:

- *"1.2Mbps if we are lucky"*
- *"Business programmes time out because the data takes so long to enter"*
- *"Video conference is often impossible"*
- *"Very slow. Dial up won't even load the NZ Herald"* [website]
- *"Internet speed is the issue for us as we increasingly work 'in the cloud'"*
- *"Would like to be able to get fibre so I can have faster speed"*

Reliability of connection was also an issue, with many respondents reporting that terrain and bad weather affected their connections.

Broadband use

Not surprisingly, broadband is used for a variety of purposes, including email, online banking, bill payments, social media and accessing news and current affairs. Three-quarters of respondents also use the internet for online shopping and 69% for business purposes. Other uses include education, as illustrated by this quote:

"I am currently studying. Due to my remote location I have to study via distance learning so rely on my internet connection everyday".

Future connection and willingness to pay

95% of respondents want faster and more reliable broadband. Out of those, 63% would use it for business / work purposes.

"It would make a huge difference to our ability to work effectively from home".

Some commonly-cited benefits for business are time savings, efficiency, online training and development and faster accommodation bookings.

Those wanting better services were asked about their willingness to pay, with 37% indicating they were willing to pay more for faster, more reliable broadband. Half of those were willing to pay an additional $20 per month.

However, 45% were not willing to pay more, with many saying they are currently paying too much for low speeds and unreliable connections. They wanted better value for money.

Mobile black spots

An overwhelming 1,000 respondents knew of mobile black spots in the region. Many mentioned their home being located in a mobile black spot. Others mentioned being able to receive one network in places but not another network, forcing some to carry two mobile phones in an attempt to improve their coverage.

Commonly-quoted areas with no or poor mobile coverage include Kaitaia to Rawene, Lonely Valley, spots between Dargaville and Whangarei (SH14), Russell to Rawhiti, SH12, Whangarei Heads, Tutukaka Coast, Bayleys Beach. This list is by no mean exhaustive.

Our Commitment to Assisting Deployment

The four councils (Far North, Whangarei and Kaipara District Councils and Northland Regional Council) are committed to facilitating the deployment of broadband and mobile infrastructure in Northland. We will work with the successful supplier(s) in a positive and constructive manner and ensure work can be carried out efficiently, at pace and without unnecessary delays.

We will:

- support take-up of fibre services in the proposed towns and promote its applications in order to reduce demand-side risks
- reduce regulatory barriers and roadblocks to deployment
- reduce costs of deployment by making available council-owned properties to locate telecommunications equipment.

We are interested in supporting all three central government programmes. While some of our assistance will be tailored to the programme and associated method of deployment, in the main, our commitment to any suppliers chosen spans the three programmes.

Supporting take-up

Our high-level vision for supporting take-up of new services is summarised at the end of this document and will be fully developed as part of Northland's Digital Enablement Plan, due in September. A priority will be to reduce cost barriers to take-up of new fibre services for low socio-economic groups.

We intend to access a regional fund to implement this plan. The Northland Regional Council Investment and Growth Reserve [15] (IGR) has been established to invest in projects/ventures within Northland to increase jobs, household income and GDP. The allocation of funds from the IGR is not limited by a requirement for public consultation; however, applications need to follow a process which includes the development of an appropriate business case. Although it is not possible to make any funding commitment from the IGR until Government has decided on the extent of the roll-out, this option can be considered as a source of investment to promote uptake.

Reducing regulatory barriers

To facilitate the consent process and other regulatory requirements, we will:

- Provide a single point of contact in each district
- Provide pre-lodgement support
- Fast-track consents as much as capacity allows
- Agree to bulk consenting
- Approve a generic Traffic Management Plan.

[15] Further information about the IGR can be found at www.northlandnz.com. At the time of preparing this application there is approximately $1.6M available for allocation from the IGR over the next three years.

Note that resource consents are not required for overhead cabling, shallow trenching, and undergrounding lines (with the exception of work taking place in outstanding natural landscapes). Resource consent may be required for towers and antennae, depending on design and location. A building consent would only be required for the proposed towers/antennas – depending on the size/height of the structures. Work carried out by a network utility company may be exempted from requiring a building consent.

Northland's councils are also looking at applying uniform general engineering principles, as well as agreeing to work with and align utility providers as part of their infrastructure strategies.

Reducing the cost of deployment

While we are not in a position to co-invest in the roll-out of the infrastructure, council-owned properties may be used for deployment of cabinets, antennas or towers. A list of council-owned properties is attached. We will be open to engaging with the successful supplier(s) as to how these can be best utilised to facilitate the deployment.

We would look to schedule our own renewal projects to coincide with work being done by suppliers, to reduce reinstatement costs.

We do not have ducts or other infrastructure suitable for deployment, nor do we plan to underground any infrastructure.

Our commitment explained

The table below describes our full offer of support with regards to regulatory matters and cost reduction. General statements are pertinent to all four councils, while specific comments are attributed to a council.

Consent and Other Regulatory Requirements
Fast Track Consents Each council will fast-track the consent process (with the exception of any applications that may require notification) to the greatest degree that staff resourcing allows. A 10-day turnaround can be expected for simple consents where applications are supported by appropriate information and include all affected person approvals.
Overhead Deployment Resource consent will not normally be required for overhead cabling (potential exceptions being work located within outstanding natural landscapes and overhead or sub-seabed cabling in the coastal marine area). KDC - Activities must comply with certain performance standards outlined in Chapter 10 of the Kaipara District Council District Plan. FNDC - Resource consent is unlikely to be required for affixing cabling to existing buildings. WDC - Overhead services shall be erected within the line of the utility operators' own network conductors, and or in accordance with all other relevant consents granted.

Consent and Other Regulatory Requirements

Shallow Trenching

Resource consent is not required for shallow trenching except if this occurs in the coastal marine area.

FNDC - will allow shallow trenching to a depth of 300mm where ground conditions make it difficult to dig deper, but on the condition that no cost to council is associated with a hit. Earthworks permits may be required, in which case a dedicated officer will process the permits, and FDNC will also accept a bulk application dealing with several sites within the same general location, reducing costs by minimising site visits. As with resource consenting, we would ideally discuss earthwork permit requirements at pre-lodgement stage and agree on application format and information requirements to achieve consistency and speedy processing.

WDC - In accordance with the Utilities Access Act 2010, WDC has negotiated Local Conditions with utility companies. The depth of cover over services installed in the formed road, or installed in the berm within 1 metre of the edge of seal, shall be a minimum of 750mm. Where services are to be located in the berm and shall be further than 1 metre from the edge of seal then the depth of cover over services shall be a minimum of 600mm. Depth of cover over connections in to a property shall be a minimum of 450mm. No shallow or micro trenching is permitted in WDC'S network.

Undergrounding Lines

No consent is required for undergrounding lines unless earth works are undertaken within the drip line of a heritage tree or will affect an archaeological site (or other rare exception).

Towers And Antennae

Resource consent may be required for towers and antennae, depending on design and location. Building consent may also be required for towers and antennas, depending on the size/height of the structures.

Work carried out by a network utility operator may be exempted from requiring a building consent

Traffic Management Plan

Each district council will approve a generic Traffic Management Plan for any work undertaken on its roading network as this reduces administrative loads and generally improves processing times.

In Whangarei District, works on Arterial / Collector roads, or within the CBD may require a site specific TMP to be submitted with the Corridor Access Request.

Corridor Access Request

Approval of Corridor Access Requests is to be obtained prior to commencing work for localised communities. A corridor access request would cover any contractor in locating services in the event of shallow trenching for laying cable, and locating other utility companies' infrastructure.

There is currently no charge for Corridor Access Requests.

Applications will be processed in accordance with the time frames prescribed in the National Code of Practice for Utilities' Access to the Transport Corridors.

Consent and Other Regulatory Requirements

Other

The Proposed Regional Policy Statement (RPS) for Northland, which must be 'given effect' to by district and regional plans, has two significant methods that will assist with the development of broadband and mobile networks.

Firstly, the mapping of significant areas across the region makes it clear where the requirements of the NZCPS and Section 6 of the RMA will apply. This reduces inconsistency between district plans and avoids added cost to resource consent applications through uncertainty on what is 'significant'. Secondly, the inclusion of a policy approach that recognises that broadband and apparatus for wireless networks, telecommunications and radio are types of regionally-significant infrastructure.

The policy recognises this may well be an 'appropriate' activity to locate in a significant area in spite of other policy considerations, because of its significant benefit.

Having a supportive policy in the Proposed RPS will immediately assist broadband and mobile coverage developers through the consenting process and later, will influence the way that rules are written in regional and district plans, ensuring that there is as smooth a path as possible for the development of infrastructure.

Consent Processing And General Relations With Councils

Single Point Of Contact

Each council will provide a dedicated contact point (i.e. one processing officer dealing with all applications to provide consistency). However, if it should come to a choice between staying with one processing officer or handing the applications around to ensure speedy response time, preferences could be discussed at that point.

FNDC will also provide a dedicated staff member for facilitating traffic management plans / road corridor access requests at no charge to the suppliers.

Pre-Lodgement Meeting / Advice

Formal pre-lodgement meeting(s) are available to agree to a standardised application format and information requirements. This means no surprises, and enables us in turn to standardise assessment and decision reports, saving time and effort and generally helping avoid difficulties that could delay processing.

Access To Gis Maps / Zoning And Other Information

Publicly available information, such as zoning, will be provided.

Administrative support as available will be provided to obtain additional information.

Fees and Charges

Discounted Pre-Lodgement And Resource Consent Fees

Councils will consider discounting or waiving pre-lodgement meeting and consenting fees as part of their 2015/2016 fee review (this can only be done through a formal council decision).

In addition, in the likelihood of a number of applications lodged at one time (albeit potentially covering different locations):

FNDC offers a discounted 'deposit' fee and then any additional fees on a cost-recovery basis

WDC will reduce its lodgement fee if deemed reasonable, but may still invoice additional costs.

Reinstatement Requirements

Reinstatement Requirement For Footpaths, Roads And Berms

Each council will look to time any of its own renewal projects with work being done by a supplier.

KDC - Any reinstatement work is currently carried out within the district to the satisfaction of our Engineers.

FNDC – like-for-like replacement / lesser compaction are acceptable when coupled with longer maintenance periods e.g. two years or more - Any re-instatement as per NZS4404:2010 "Land Development and subdivision Infrastructure." Whole concrete pad will need to be replaced as per council standards and berm reinstated to Council standards.

WDC - As per the Code of Practice for Utilities Access to the Transport Corridors, and/or Council's agreed Local Conditions (attached).

Disposal Sites For Extracted Material

Given likely underground tunnelling requirements in Far North District, disused quarries might be suitable for disposal of extract material. This could require FDNC and NRC consent, although every effort will be made to maximise the use of permitted development rules and or joint consenting / and global consents where there is sufficient specificity on the sites for disposal and operating under the assumption that the material is 'clean'.

Grass Seed Reinstatement

FNDC - Re leaving open for a period of time, subject to health and safety, a successful campaign with the community should highlight the benefits so as to minimise complaints. There is the potential for Council to partner with communities on their own grass, reseeding type programmes or partner with training to work providers for this (or some combination of these options).

Ultra-Fast Broadband 2

We would like to propose the following towns (listed from North to South) for consideration for fibre deployment:

- Kaitaia
- Taipa Bay-Mangonui
- Kaeo (at the request of the Iwi Leadership Consortium – see below)
- Kerikeri (including Waipapa)
- Paihia (including Opua, Haruru Falls and Waitangi)
- Kaikohe
- Rawene
- Kawakawa
- Three Mile Bush
- Hikurangi and Springs Flat
- Ngunguru
- Marsden Point
- Dargaville
- Maungaturoto
- Manghawai Village and Heads
- Kaiwaka.

A map of Northland showing the location of the proposed towns (UFB map 8) as well as individual maps for each town (see UFB map folder) are appended. Where available, the town maps show the 50km zones.

Selection of these towns was based on the following tests:

Test 1: "is it an urban area as defined by Statistics New Zealand or an area marked as a growth area in operative district plans?" – UFB map 1 shows the location of Northland's urban settlements against coverage based on NZRS data. UFB maps 2 and 3 show coverage against population and households respectively.

Test 2: "would the area benefit from fibre deployment?" – based on the location of MMUSH (Marae / municipalities / utilities / schools / hospitals) (UFB map 6), significant economic and tourism assets (UFB map 7) and our knowledge of the region, we have assessed the potential economic and social benefits.

Test 3: "is there any evidence of unmet demand / are households and businesses likely to switch to fibre?" - based on current penetration statistics (UFB map 4), household income (General map 3), and intelligence gathered by councils through consultation and survey processes. UFB map 4 shows current levels of internet connection – which are high in many urban areas, pointing to the potential consumer base for fibre broadband.

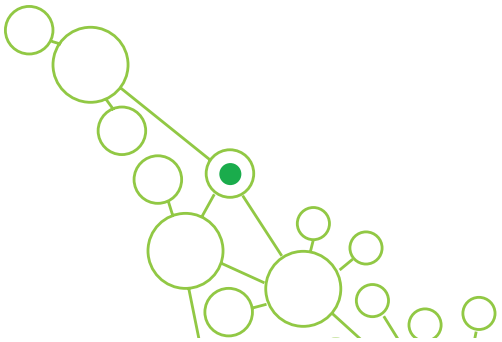
Test 4: market test – "do providers think this is a realistic proposition?" We also tested our proposal with Uber, Chorus, Top Energy, Spark, Rural Tech Solutions and Northpower during face-to-face meetings.

The economic case for investment varies from town to town, with variances in deployment cost. The potential social and economic benefits will also vary from town to town. Importantly, as shown on UFB map 9, there is already a significant backhaul fibre network in Northland, covering most of the region, although gaps exist in places. After discussion with providers, we understand that the electricity pole infrastructure is limited in the Far North District and that deployment is likely to require trenching. In Whangarei and Kaipara districts, overhead deployment is likely to be the preferred method. The electricity companies (that are developing a RoI – Supply) have maps of existing electricity pole infrastructure. Northland's councils do not have existing ducts or other infrastructure that can be used to roll out broadband.

High-level soil information for the Far North District's towns is available here: https://www.fndc.govt.nz/services/building-in-the-far-north/fndc-maps#soil Soil and rock maps are also attached for those towns. More detailed information will be made available to suppliers when routes are being worked out if required.

The Tai Tokerau Iwi Chief Executive Officers have requested that the government looks favourably at deployment of fibre broadband in Kaeo. *He Tangata He Whenua He Oranga* holds education as a key driver for shaping Iwi's future prospects. The criteria for this ROI supports developed aspects of the economy. The Tai Tokerau Maori economy is a developing economy within a developed economy and Whangaroa is a key exemplar of this situation. The Tai Tokerau Iwi Chief Exectuive consortium supports the ROI bid but asks that Kaeo be added to the list of towns prioritised for deployment of UFB to support connectivity out to the community.

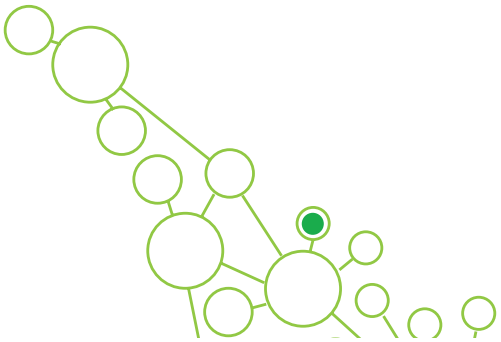
We detail the rationale for selection of each town as follows.



Taipa Bay-Mangonui

This area consists of a number of contiguous townships along SH10 in Doubtless Bay. Tourism is the key industry, and the area's coastal location, scenic landscape and sub-tropical climate attract many new residents, especially retirees. The area is home to Taipa Area School and Mangonui School.

- **Population 1,800**
- **Households (in occupied private dwellings) 771**
- **Median household income $37,900**
- **Internet penetration 69%**
- **Businesses 214**
- **Employment 551 FTEs**
- **Growth area +6.2% by 2021**

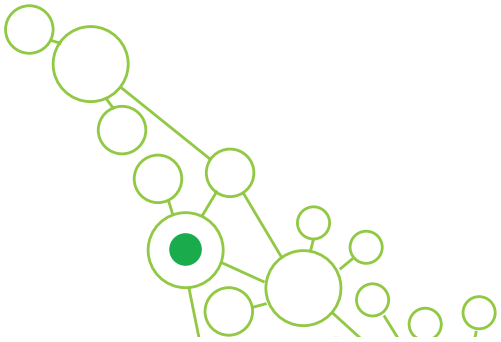


Kaeo

Kaeo is a rural settlement servicing the surrounding Whaingaroa area. It has a hospital, a school, and a police station, as well as shops and community services. The tourism sector would benefit from better digital connectivity. Kaeo is a key point on the Twin Coast Discovery Highway revitalisation project that offers opportunities to develop Maori cultural tourism products. Kaeo is also the gateway to the untapped tourism potential of the Whaingaroa harbour. This natural feature is the basis for a joint-venture tourism partnership that the local Iwi Runanga is embarking on to support the local economy and international tourism at Peppers Carrington Resort.

The other economic development opportunity being pursued relates to delivering upon the Crown objective of developing new Aquaculture space pursuant to the Maori Commercial Aquaculture Claims Settlement Act 2004. Consenting of new space has been extremely difficult for the Ministry of Primary Industries and the Northland Regional Council. The Westpac consent for Whaingaroa, that includes a mussel farm employing 91 people, is the only successful application in Northland since the legislation was enacted. Access to significant capacity in digital connectivity in respect of contact with their business partners, research and information sources and most importantly the marketing of product will assist in ensuring this venture is sustainable.

- **Population 510**
- **Households (in occupied private dwellings) 165**
- **Median household income $32,100**
- **Internet penetration 57%**
- **Businesses 56**
- **Employment 190 FTEs**
- **Growth area +1.0% by 2021**



Kaitaia

Kaitaia is the largest service town in the Far North (followed by Kerikeri and Kaikohe).

- **Population 5,580**
- **Households (in occupied private dwellings) 1,791**
- **Median household income $34,016**
- **Internet penetration 49%**
- **Businesses 530**
- **Employment FTE 3,620**
- **Growth area – static population**

Key industry sectors – a service centre for the primary industry and tourism sectors

High economic potential due to industry composition

Main employer Juken Nissho triboard mill http://www.jnl.co.nz/

There is a burgeoning apiculture industry in this area with Kai Ora Honey, Mana Kai Honey, Haines Apiaries Marina's Apiary, New Zealand Honey Traders and Tai Tokerau Honey. There are some exciting new developments in real-time monitoring to support hive management that will need the support of quality broadband. Fibre could unleash opportunities in the horticulture and apiculture sectors – bringing producers and manufacturers closer to new markets. For example, the Manuka honey industry is exploring potential to export to China and Japan. Kaitaia is home of one of the few apiculture qualifications offered in Australasia. Fibre connection would also enable these qualifications to be delivered remotely. The town does need to attract light industry to provide more employment (the end product needs to be light to take into account high freight costs, given that Kaitaia is the most remote town in the region).

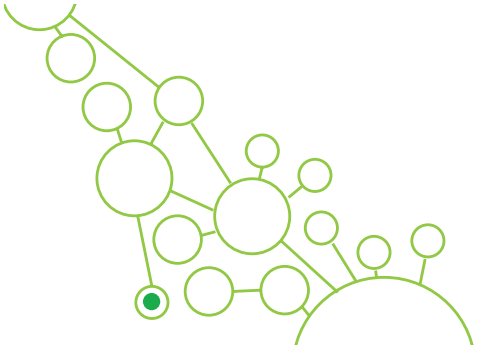
Kerikeri (and Waipapa)

Kerikeri is one of the three largest service centres in the Far North, providing services such as real estate, professional and technical services to the whole of Far North district. The horticulture industry has a particularly strong presence in the area. As noted in the Tai Tokerau Northland Growth Study, horticulture businesses can benefit from delivery schedule monitoring, weather monitoring and online sales, all of which require high speed reliable broadband.

- **Population 7,050 (based on a large census unit that includes a large rural area)**
- **Households (in occupied private dwellings) 2,622**
- **Median household income $41,462**
- **Internet penetration 78%**
- **Businesses 1,125**
- **Employment 3,878 FTE**
- **Growth area +380 people by 2021**

The businesses in Kerikeri are generally light engineering, supporting the surrounding primary sector. Kerikeri is the base for a large proportion of Northland horticulture, originally based around citrus but now including a wide variety of fruit and vegetables.

A quality wine industry has also developed. Kerikeri is also the landing place of a large number of wealthy individuals attracted by quality coastal residential options and the sub-tropical climate. The town has seen a large increase in home-based professionals looking for high-quality broadband infrastructure.



Rawene

Rawene is the main service town within the Hokianga, centrally located at the southern terminus of the Hokianga Harbour Car Ferry. It is an important west coast nodal point on the Twin Coast Discovery Highway. It has a significant education (including Further Education) and health presence (hospital), as well as local government presence. Deployment to Rawene, while higher-cost than other Northland towns due to its geographic location and lack of fibre backhaul network, will bring both economic and social benefits to this remote community.

- **Population 540**
- **Households (in occupied private dwellings) 189**
- **Median household income $30,100**
- **Internet penetration 48%**
- **Businesses 43**
- **Employment 259 FTE**
- **Growth area -0.4% by 2021**

The town has a fully functioning hospital that has serviced the area since 1909 that is currently run by an independent Health Trust. Hokianga Health has greatly increased the use of ICT with remote base diagnostic and monitoring tools and the use of video conferencing for staff training and remote patient management. As a respondent to our survey pointed out, hospital services would vastly benefit from better broadband services: "Any internet improvement would help ultrafast broadband to Rawene hospital [which] would enable better teleconferencing without drop outs, access to Auckland and Whangarei to teleconference with specialists etc".

NorthTec has a campus in Rawene and provides training in support of key industry sectors in the Hokianga, including National Certificate in Business Administration, Certificate in Painting, Certificate in Elementary Construction, and Certificate in Sustainable Rural Development.

Rawene is surrounded by large tracts of underdeveloped multi-owned Maori land which is earmarked for development and is a key economic driver for this area.

The south Hokianga also offers a growing tourism opportunity, with the main players being the Copthorne Hotel and Resort Hokianga and Footprints Waipoua.

Paihia and surrounds

(Paihia / Opua / Haruru Falls / Waitangi)

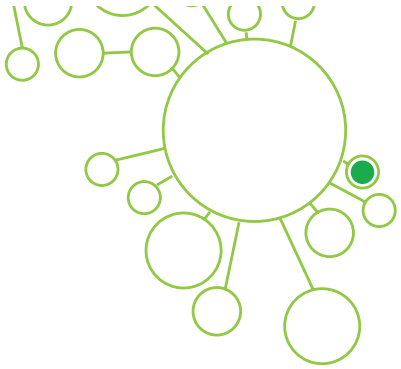
A cluster of urban and rural settlements in the Bay of Islands, the area is the main tourism centre north of Auckland, drawing visitors from home and abroad. This area has also a cultural significance for the whole of New Zealand, containing the Waitangi Treaty Grounds which are promoted as New Zealand's premier historic site. The businesses in this area are predominantly in the tourism sector, with big players being the Copthorne Hotel and Resort Bay of Islands, Explore NZ and Fullers Great Sights, and quality internet access is seen as a given by international tourists. Seasonal fluctuations in visitor numbers are an issue and better internet connection in the area has the potential to increase tourism yield and maximise the opportunities in the shoulders of the main summer period by enabling better online booking, online promotion and improved customer interaction.

- **Population 4,330**
- **Households (in occupied private dwellings) 1,656**
- **Household income $47,800**
- **Internet penetration 70%**
- **Businesses 359**
- **Employment 1,201 FTE**
- **Key industry sectors**
- **Growth area Yes - +100 people by 2021**

Kaikohe

Kaikohe is one of the three main service centres of the Far North. Kaikohe is the service centre for the mid-north with a large number of businesses servicing the rural sector. Although over the past few decades it has been in decline, it has a resilient community spirit that is primed to attract industry back. Top Energy is the largest employer, with its Call Centre Phone plus. Top Energy's Ngawha geothermal power station is nearby, presenting real opportunity for business expansion with guaranteed power supply. The Ngawha Regional Correction Facility is also a large employer in Kaikoke.

- **Population 4,370**
- **Households (in occupied private dwellings) 1,278**
- **Median household income $33,200**
- **Internet penetration 46%**
- **Businesses 287**
- **Employment 2,004 FTE**
- **Growth area static**



Hikurangi - Springs Flat

Hikurangi and Springs Flat are two contiguous suburbs of Whangarei that did not benefit from fibre deployment as part of the UFB1 programme. Springs Flat is the ideal candidate for the roll-out of fibre as it is an affluent suburb with an already high internet penetration, as well as an area of significant employment. Geographically located between areas of Whangarei already served by fibre and Springs Flat, deployment in Hikurangi is likely to be low cost and has the potential to boost demand for fibre-enabled services. Servicing these two suburbs would bring both social and economic benefits.

- **Population 3,130**
- **Households (in occupied private dwellings) 1,014**
- **Median household income Hikurangi $41,100 ad Springs Flat $68,900**
- **Internet penetration Hikurangi 60% and Springs Flat 82%**
- **Businesses 313**
- **Employment 1,441 FTE**
- **Growth area +5% by 2021**

Springs Flat is home to a number of light industry businesses predominantly situated on Pipiwai Road and Winger Crescent. These businesses typically service the surrounding farming community and infrastructure. They include AgSpares, Robinsons Asphalt, Astrolift, Maintenance and Engineering limited, Farmlands, Whangarei Housemovers, G&M Doors, Northland Scaffolding, Kamo Scrap Metals, Virgin Ready Mix Concrete, Aline Builders, Smith & Parker Joinery.

There is an industrial subdivision on Springs Flat Road with roading and other infrastructure in place which is still to be fully developed.

The area known as Kauri or Kaurihohore links Springs Flat and Hikurangi.

This area is made up of lifestyle blocks and, as with Three Mile Bush, is attractive to professional people looking to work from home on a rural setting close to Whangarei.

There are also a number of horticulture enterprises growing everything from persimmons (Natural Touch) to figs (Fifteen Acre Figs). The area is dominated by Fonterra's Kauri Processing plant www.fonterra.com/global/en/About/Our+Locations/NewZealand/Kauri

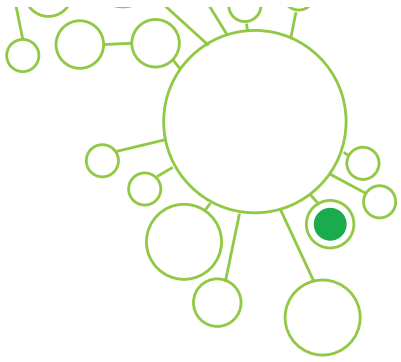
Hikurangi is a satellite village of Whangarei, populated with median to affordable housing with a small business base. The main players are Rouse Motorcycles and Guyco Pallet Manufacturing Plant.

Kawakawa

A gateway and service town for the Bay of Islands due to its location on the junction of SH1/SH10. Kawakawa is a growing tourism destination known as 'Train town' because the Bay of Islands Vintage Railway runs down the middle of its main street.

The town is also famous for its landmark Hundertwasser toilets, designed by resident Austrian artist Friedensreich Hundertwasser, and is an important nodal point for the Pou Herenga Tai Twin Coast Cycle Trail. Kawakawa is an important hub for health services in the Mid North with the Bay of Islands Hospital and Ngati Hine Health Trust being based there. Additionally, Bay of Islands College is situated in the town.

- **Population 1,400**
- **Households (in occupied private dwellings) 441**
- **Median household income $37,500**
- **Internet penetration 48%**
- **Businesses 117**
- **Employment 899 FTEs**
- **Growth area declining by 2.4% by 2021**



Three Mile Bush

A suburb in the north of Whangarei City not yet serviced by fibre (under UFB1). An affluent residential area, with a high internet penetration rate and very likely to have a high take-up of fibre-led services, this is a natural progression area following the first phase of fibre deployment in Whangarei.

- **Population 1,100**
- **Households (in occupied private dwellings) 330**
- **Median household income $88,500**
- **Internet penetration 82%**
- **Businesses 90**
- **Employment 119 FTEs**
- **Growth area Yes – 3.4% by 2021**

This area starts in the urban village of Kamo and stretches into the countryside west of Whangarei. The most significant business would be the Bush Road Medical Centre which includes a radiography unit. The area is also home to Hurupaki School and Pre School as well as Kamo Primary School, The Kamo Home Senior Care Facility (Ford Road) and the Kingdom of Zion Lion Park. The bulk of this area is high-end lifestyle blocks and dairy farms. There is also a number of home-based business and the area lends itself to professionals looking to run businesses from home in a rural setting close to Whangarei.

Ngunguru

A fast growing seaside residential town 25km north east of Whangarei with a vibrant, strong and supportive community which increasingly attracts young families, professionals and those who work from home. The area also attracts late 40-60 year-olds driven away from Auckland by the current housing market. Population growth resulted in the recent expansion of the school with additional classrooms and supporting facilities and large playground. The tourist attraction of Tutukaka is 3km to the north-east.

- **Population 1,660**
- **Households (in occupied private dwellings) 660**
- **Median household income $50,100**
- **Internet penetration 79%**
- **Businesses 183**
- **Employment 304 FTEs**
- **Growth area + 8.3% by 2021**

Marsden Point (and Ruakaka)

Marsden is home to New Zealand's only oil refinery – Refining NZ, which is a strategic asset for New Zealand, providing about 40% of New Zealand's energy needs. Consequently Northland has a competitive advantage in the petroleum and related processing sector, an industry that contributed an estimated $455 million GDP to New Zealand in 2013 [16]. Through flow-on effects, the sector generated significant activity and employment in Northland, most of which is located in Marsden and Whangarei. Marsden Cove Marina is also part of a flourishing marine industry.

- **Population 3,880**
- **Households (in occupied private dwellings) 1,419**
- **Median household income $52,000**
- **Internet penetration 72%**
- **Businesses 331**
- **Employment 1,753 FTE**
- **Key industry sectors**
- **Growth area +6.8 by 2021**

Deploying fibre to this area has the potential to unleash significant benefits. There is huge potential for business growth, with a number of light industry and manufacturing businesses already established, including Surfline Surfboards, Revitaglass, Bream Bay Coatings and others supporting the marine industry. The Carter Holt Harvey LVL Plant, situated in Ruakaka, is leading-edge and manufactures a building material called Laminated Veneer Lumber (LVL) using a sophisticated process. LVL is used to create high-value products for residential, commercial, formwork and scaffolding applications. There are two significant large commercial and residential developments spread over 135 hectares within the existing Northgate and Port Marsden industrial estates just south of a proposed rail corridor to the port at Marsden Point. These developments could potentially create 4400 jobs.

[16] Martin Jenkins, 2015, p 91

Dargaville

The only town in the Kaipara District, Dargaville is the main service centre for an area with rich primary resources.

- **Population 4,780**
- **Households (in occupied private dwellings) 1,791**
- **Median household income $35,500**
- **Internet penetration 55%**
- **Businesses 503**
- **Employment 2,858 FTE**
- **Key industry sectors**
- **Growth area +240 people by 2021**

Dargaville has remained a vibrant town with sustainable light industry businesses growing alongside the iconic kumara sector. In general businesses have survived by keeping debt at manageable levels and focusing on core skills and markets. There are opportunities for growth and innovation in a number of them. Compass Trailers & Vegetation Control, Trailequip, Newman Engineering, Shade Systems, Kaipara Workwear and Safety, Ag Tech Industries, Compac Furniture, Doors 'n' More and FertStation are all poised to grow.

Maungaturoto

Maungaturoto is a small thriving community with a number of significant industries such as Fonterra's Maungaturoto dairy factory, as well as building, manufacturing, and retail businesses.

- **Population 850**
- **Households (in occupied private dwellings) 282**
- **Median household income $45,000**
- **Internet penetration 63%**
- **Businesses 111**
- **Employment 453 FTE**
- **Growth area +1.4% by 2021**

Dominated by the second Fonterra Milk processing plant, Maungaturoto and nearby Kaiwaka are supported by a small number of light industry businesses including Archer Concepts & Kaiwaka Furniture, Canvas Plus, Kaiwaka Clothing, Zephyr Oyster Farms, Easy Access Co, Trade Source, Salt River Industries, Kauri Park Nurseries, Primehort Distributors, Cabtec, Dentec, Plastic Concepts, Sober Check and Waterflow NZ.

Their proximity to Auckland and skill base make this area primed for growth.

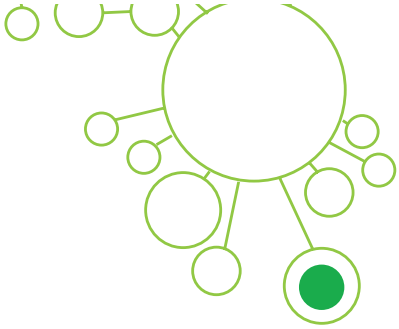
Mangawhai Village and Heads

Mangawhai is located in the east coast of Kaipara district and presents attractive lifestyle opportunities both for holiday homes and permanent residents. The area has good access and proximity to Kaiwaka and the larger urban centres of Whangarei and Auckland. Mangawhai is a popular recreational destination and experiences a large number of visitors during the peak summer holiday period. Mangawhai has transitioned from an isolated seasonal beach holiday and rural farming community to a rapidly growing coastal urban centre. It is the fastest-growing residential area in Kaipara.

Significant development is proposed to occur in Te Arai (located to the south, within Auckland Council territory). The proposal includes a 283-hectare regional park which will create public open space linkages between Pakiri Beach and Mangawhai Heads. The wider development plan for Te Arai includes a new golf course and associated accommodation, with the golf course component being almost complete and scheduled to open in October 2015. This development will bring people to the Kaipara District due to Te Arai's close proximity to Mangawhai.

- **Population 1,500**
- **Households (in occupied private dwellings) 567**
- **Median household income $42,900**
- **Internet penetration 79%**
- **Businesses 186**
- **Employment 317 FTE**
- **Growth area +2.3% by 2021**

Local businesses mainly service the growing local resident population. Over the last few years, the pastoral farming community has been joined by newer horticulture ventures including wineries, and olive groves. Mangawhai is also home to the iconic Bennett's Chocolates. www.bennettsofmangawhai.com



Kaiwaka

As the southern gateway of the Kaipara District situated on SH1, Kaiwaka offers a variety of shops, cafes, and accommodation. It is on the fibre backhaul network.

- **Population 640**
- **Households (in occupied private dwellings) 213**
- **Median household income $44,400**
- **Internet penetration 67%**
- **Businesses 79**
- **Employment 219 FTE**
- **Growth area +1.9% by 2021**

Like Maungaturoto, its location and business mix makes it likely to grow in the future.

Rural Broadband Initiative 2

Half of Northland's population lives in rural areas. The quality of rural broadband coverage across Northland affects the quality of life and ability to make a living for more than 80,000 residents. All parties signatory to this document believe that rural broadband coverage should be no less than 5 Mbps across the whole of the Northland region. The coverage information shows a very different picture, with large sections of Northland only receiving likely poor coverage or dial-up. While we do understand the economic imperative of servicing areas where return on investment are the highest, remote and underserved communities could benefit enormously from broadband as it provides the opportunity for education, health and employment. Furthermore, we believe that politically the Government cannot afford to leave these communities behind.

We propose a number of "areas of interest" for investment which are shown on RBI map 1 (appended). Because the data available does not allow in-depth analysis, we are not able to propose specific areas. These would be best determined in full possession of the suppliers' information.

In selecting our proposed areas for RBI2 investment, we have followed a similar process to that for the UFB2 investment and applied a number of tests to arrive at our proposed areas.

Test 1: "*is there no existing or planned coverage? Or is there evidence of poor quality of coverage?"* – RBI map 1 shows rural broadband coverage based on NZRS data. While the coverage data is not complete (for example, it does not include data from Uber), the story that emerges is echoed in our survey results: coverage is very patchy with many communities still being reliant on dial-up or receiving likely poor quality coverage.

Test 2: *"would the area benefit from fibre deployment?"* – we have selected the areas with poor coverage with the highest density of population (RBI map 2) and households (RBI map 3), as well as businesses (RBI map 4) and GDP per unit area (General map 1). We also considered the location of MMUSH (Marae / municipalities / utilities / schools / hospitals) – RBI map 5). We have selected areas with the highest economic and social potential.

Test 3: *"is there any evidence of unmet demand / are households and businesses likely to switch to fibre?"* - based on current penetration statistics (RBI map 6), and households income (General map 3).

Test 4: *"is there evidence of digital isolation?"* There are numerous outlying areas that are extremely remote, that are difficult to economically service, resulting in high deprivation for some communities such as those in the very far north.

Test 5: market test – *"do providers think this is a realistic proposition?"* Discussions with providers highlighted a correlation between areas of poor coverage and gaps in the backhaul fibre infrastructure. This suggests an investment in fibre backhaul network would result in an improvement in rural coverage. This is especially significant as a majority of our survey respondents (75%) access broadband through their telephone line.

We believe great economic benefits could be derived from better coverage in areas where primary resources are the primary sources. Areas in south Kaipara, north of Awanui, east of Rawene, Kaeo, and between Kaitaia and Taipa Bay are very productive (with key industries such as forestry, apiculture, horticulture and dairy).

As primary production is increasingly dependent on the use of on-line applications, having access to fast and reliable broadband services is essential for the primary sector to remain competitive. A survey respondent illustrates this point:

"My parents own a dairy farm in the same area [as me] and do a lot of business online as part of the farming operation. Internet speed is terribly slow there and they get frustrated being unable to send required information to Fonterra or other businesses they deal with."

Better connection would also benefit other businesses and residents, as one respondent points out:

"Skyping for meetings. Currently an organisation I'm in meets around the north, from Maungaturoto to Kaitaia. We've tried skyping in members for the distant meetings but it just hasn't worked. It would also help my NZQA work, and be more reliable for my editing business.

I also teach online through NorthTec, teaching writing and editing papers, and more reliable broadband would help me. Just as importantly, better broadband throughout Northland would be a godsend for my students. Some really struggle with this and it's yet "another barrier for them when they already have so many."

Other areas, such as the coast north of Dargaville, the coast east of Kawakawa, and the top of the Far North, would benefit socially from better internet connection, as these communities are remote and isolated.

As with deployment of fibre, the councils are committed to supporting the deployment of rural broadband, and have offered council-owned sites as potential sites for new towers, antennas or other equipment. The full list of council-owned properties is appended.

Mobile Black Spot Fund

We understand that the objective of the Mobile Black Spot Fund is three-fold: to increase safety on the state highway network, to improve tourists' experience and to reduce isolation. With these in mind, we have prioritised areas with known mobile black spots on the state highway network (i.e. SH1, 10, 12 and 14), especially known high crash zones, isolated areas, and / or areas that attract large number of visitors (Mobile maps 2, 3 and 4).

Strong anecdotal evidence points to the existence of many mobile black spots around the region, and notably alongside the state highway network. This evidence is correlated by our survey result. An overwhelming 1,000 respondents (out of a total of 1,500) knew of mobile black spots in Northland. Many mentioned home being a mobile black spot, while others resorted to subscribing to two mobile networks in the hope of better coverage. A survey respondent says: "There are lots of black spots in Rawene and it depends on which provider you are with. I have poor coverage at my home (Spark), I can receive texts but not calls (they just drop out), the Rawene Polytech [NorthTec] in Nimmo Street West has black spots and there are only a few locations on campus where you can receive a signal, the Boatshed cafe in town which is over the water on the East side of the town has black spots too". The lack of good mobile coverage is an issue for those working in the farming sector.

Emergency services and council field staff have also informed us of numerous black spots across the region. Yet the coverage map based on NZRS dataset (Mobile map 1) paints a very different picture – one in which Northland's coverage is very comprehensive. We know this to be erroneous.

We have discussed this issue, and potential areas for improved coverage with Spark. We understand Northland's topography makes coverage haphazard. While available mapping shows that many of our proposed areas for investment have mobile coverage, the signal needs to be strengthened as it is sporadic and variable in many spots along the state highway network and also in tourism areas. This impacts strongly on residents and businesses as illustrated by a quote from our survey:

"We cannot access cellphone coverage unless we are sitting on a hill way above our house or drive to another hill some distance away. In an emergency we are stuck".

Our top priority is for mobile signal to be strengthened on the State Highway network and the Twin Coast Discovery Route as coverage is inexistent or variable in many spots along this route, making it quite difficult for us to provide specific locations. We would like to propose the following areas as high priority for investment:

- **SH1** – from Brynderwyns to Kerikeri - requires strong signal at all times;
- **SH12** – Brynderwyns to Waipoua (Te Uri o Hau Headquarters) - Twin Coast Discovery tourist route along SH12;
- **SH14** between Tangiteroria and Wheki Valley. This is a busy state highway and is the key route connecting Whangarei and Dargaville;
- **Kaeo** and surrounding areas (a high crash area on SH1);
- **North of Waipapakauri** to Te Hapua (north of Awanui) – the state highway services some isolated communities and a tourism area;
- **Areas between Whangarei and Kaikohe** on SH1 (Towai, Kawakawa, Hukerenui) – a tourism route and high crash area;
- **The Russell to Whakapara Road** – a route highly frequented by tourists.

We would also suggest MBIE give serious consideration how mobile coverage will be delivered following the intended designation of the Mangakahia to Otaika Valley Road as a state highway. Lack of mobile coverage is currently a deterrent to driving on this route, especially at night, as it is perceived as a safety issue.

We also believe that mobile coverage is required in the following (often remote) tourist destinations to enable access to emergency services.

- **Along the Pou Herenga Tai Twin Coast Cycle Trail** – this Government-funded cycle trail is already marketed internationally by Tourism NZ, yet has several blackspots, notably Ngapipito Rd and Utakura Valley
- **North Hokianga (Panguru, Kohukohu, MitiMiti etc) and South Hokianga** – partly on the state highway network, this is a key tourism area in Northland and contains isolated comunities
- **Pouto** is the southern beginning of New Zealand's longest driveable beach (Ripiro Beach) which stretches for more than 100kms. Along with serving as a road, this long, wide, continuous beach is part of the Kaipara Missing Link Cycleway
- **Glinks Gully** – located approximately 50km north of Pouto, this beach settlement along Ripiro Beach is a popular holiday location
- **Baylys Beach** – located approximately 70km north of Pouto, this beach settlement is home to a number of permanent residents along Ripiro Beach and is a popular holiday location. It also provides a highly-frequented access point to the beach, providing an entrance/exit to Ripiro Beach for the Missing Link Cycleway
- **Omamari** – located 90km north of Pouto, another beach settlement and popular holiday destination along Ripiro Beach and only a 10-minute drive from the Kai Iwi Lakes (see below)
- **Kai Iwi Lakes** (Taharoa Domain) is situated 35km northwest of Dargaville. The Taharoa domain is a 538-hectare recreation reserve containing three freshwater lakes (the Kai Iwi Lakes)
- **Maunganui Bluff** - located 100km north of Pouto, the Bluff rises 460 metres from the sea and comprises a 495-hectare scenic reserve.
- **Mangawhai** – a popular tourist spot and also home to permanent residents
- **Waipu and Waipu Cove** – another popular tourism destination on the east coast, part of the Twin Discovery Route.

Our Commitment To Supporting Uptake

We are committed to supporting uptake and marketing of future services and will detail our investment in Northland's Digital Enablement Plan. This will build from the successful work in Whangarei and other current activities carried out by the signatories to this document.

Campaign in support of the fibre roll-out in Whangarei

In February 2014, Whangarei District Council (WDC) led a promotional campaign and held a series of events to mark the completion of the UFB build in Whangarei. The campaign comprised the following key activities during April and May:

- A multi-channel marketing effort (radio, billboard, Facebook, YouTube, newspaper)
- A temporary ICT hub at WDC created to showcase UFB and applications & services running over it
- A school holiday programme based at WDC offered children the chance to create music, online games and TV content and publish it to the web
- Workshops based at WDC for businesses to evaluate their digital maturity and for teachers to preview the Network for Learning (N4L) portal offering
- Connection of the first two Whangarei schools, Manaia View and Otangarei, to the N4L
- Connection of NZ's first "wired marae", Otangarei Marae, with sponsorship and support from local businesses.

The campaign is considered a success, with large numbers of attendees and extensive media coverage. Northpower Fibre has provided their latest take-up figure. With 17% penetration, Whangarei is the most connected town in New Zealand. The legacy of the campaign is expected to include:

- Creation of a Te Puawai (Manaiakalani type) Schools Trust
- Formation of a permanent ICT youth group
- Initiation of an internet affordability study between Computers in Homes and Nga Pu Waea
- Research into UFB uptake by businesses to be conducted by NorthTec.

Current activities

In this section, we list the councils' existing activities to support uptake of broadband services and to increase digital literacy.

Cost is perceived as a barrier to internet connectivity [17].

Councils provide free wi-fi in several sites (such as Whangarei airport, Whangarei i-Site, and in Whangarei CBD) as well as free internet access in the region's libraries.

Library resources and other resources can be searched on line via councils' websites. It is noted that good digital access in libraries supports the Government's goal of achieving 'Better Public Services' Result 10; "New Zealanders can complete their transactions with government easily in a digital environment".

Councils offer digital options to customers:

- WDC and KDC have adapted on-line payment of rates and Dog Registrations.
- NRC offers an increasing number of online services (e.g. consent applications) and of environmental monitoring data that customers can download.
- KDC moved to cloud-based software – e.g. online lodgement of Building Consents
- WDC and FDNC are looking to move to cloud-based applications to drive down cost of transactions and making council services more accessible (e.g. view property information, asset information online) as telecommunications infrastructure improves. FNDC is not currently able to move to shared services or cloud based services – which would enable FNDC systems, telecommunications services and information to be accessible to staff and the community – due to lack of fibre broadband. UFB will allow FNDC to realise the benefits from shared services with other Councils and with cloud software and infrastructure providers without degrading the quality of the service in the way of performance of systems and accessibility to information for staff of the Far North District Council and the Community of the Far North. This will mean that FNDC can align with central government directives coming from the Ministry of Business Innovation and Employment and Government Chief Information Officer on the use of Cloud services by government agencies and also align FNDC with industry good practice by adopting a cloud first policy as part of its strategy for Information Services.

Councils use social media as a communications tool, including in emergency situations. The internet is also being increasingly used as an engagement and consultation tool. Better connectivity would lead to improved consultation processes, improving the quality of local government.

Councils run community initiatives such as:

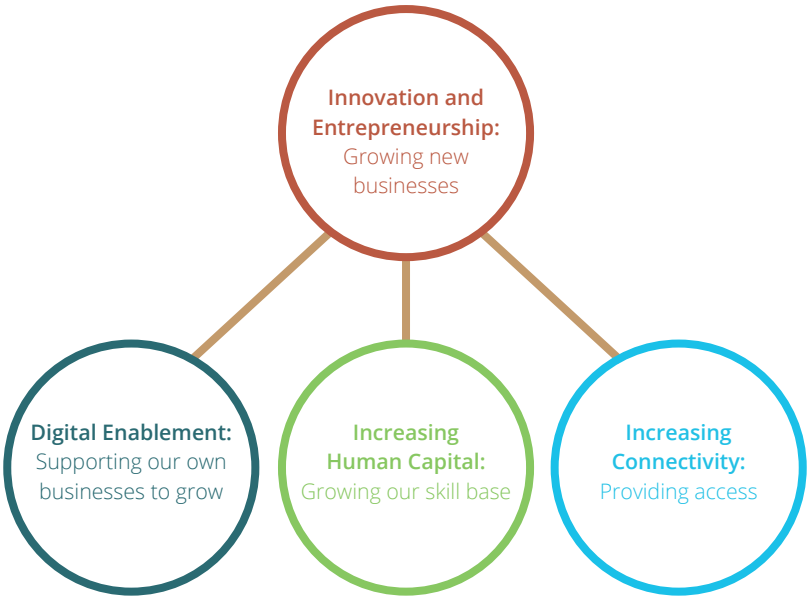
- KDC - digital schools and Senior net (learning centres for older adult computer users)
- WDC - Computer Club for children and teens, eBook tutorials, beginner computer classes, interactive preschool and school holiday programmes
- The 2015 NetHui, which took place in July, has a day-long Maori meetup to showcase leading research, and provide opportunities for Maori to share their work. The meetup was focused on enhancing Maori digital entrepreneurship. The internet is used for Maori language revitalisation, cultural enhancement and protection; and many Maori use technology to operate internationally.

17. Martin Jenkins, 2015

The regional digital strategy

Northland Inc. is well advanced in the development of a draft Northland 2025 Digital Strategy, designed to encourage Northland stakeholders to prepare and take advantage of a digital transformation.

Actions are organised around the following four platforms:



Northland's Digital Enablement Plan

The strategy, primarily focusing on business activities, will be further developed to deliver our Digital Enablement Plan by 18 September, 2015. As a collective group, we recognise that effective high-speed broadband enables regional development in the following key areas:

- Economic development – Availability of high bandwidth broadband is a cornerstone for the growth of valuable research and knowledge based (sometimes referred to as "weightless") businesses, as these are heavily reliant on high levels of connectivity and data access/ transmission;
- Health – Hospitals are major users of broadband services, particularly for patient information management but also for consultation, diagnostic services and file transfer. High bandwidth availability increases the range and quality of services that health facilities can offer as well as improving productivity and opening up sorely needed leverage opportunities;
- Education – Connectivity with other research and education centres is of particular importance to education sector entities. Availability of broadband services enables improvements in both the capabilities of educational institutions (at all levels) and the range of services they can offer to a wide constituency. Well-connected tertiary educational facilities, particularly at the tertiary level, are essential in stimulating knowledge based businesses and research/educational activities;
- Government – Both local and central Government entities increasingly rely on a high level of connectedness as public value outcomes cross public sector agency boundaries;
- Social - Effective broadband provides a platform for improved accessibility of a range of social services, especially in rural areas. The global explosion of the social networking phenomenon bears witness to the power of connectedness in supporting communities of interest in a myriad of contexts;

- Cultural – New Zealand's cultural heritage is a national asset the leverage of which relies on the ability to effectively capture and disseminate knowledge of ourselves as a nation, as regions and as communities. Ubiquitous broadband networks are an essential means to connect our people with their cultural heritage in the digital age; and
- Environmental – The availability of high quality broadband services decreases reliance on physical transportation and reduces our economic reliance on primary (natural resource exploitation) and secondary (manufacturing and processing) sectors which generally have a greater environmental impact than the tertiary (service) sector.

The Northland Digital Enablement Plan will look to build on our Digital Strategy and existing activities to support digital connectivity.

An area of focus for the Digital Enablement Plan will be to ensure low-income families can access the improved services enabled by Government's investment.

As mentioned earlier in this document, we intend to access Northland Regional Council's Investment and Growth Reserve (IGR) to implement this plan.

Our declaration

Respondent's declaration

Topic	Declaration	Respondent's declaration
ROI Process, Terms and Conditions:	We have read and fully understand the ROI, including the ROI Process, Terms and Conditions (shortened to ROI-Terms detailed in Section 6, as amended by Section 1, paragraph 1.6. if applicable). We confirm that the Respondents agree to be bound by them.	Agree
Collection of further information:	The Respondents authorise the Buyer to: a. collect any information about the Respondents, except commercially sensitive pricing information, from any relevant third party, including a referee, or previous or existing client b. use such information in the evaluation of this Registration. The Respondents agree that all such information will be confidential to the Buyer.	Agree
Requirements:	We have read and fully understand the nature and extent of the Buyer's Requirements as described in Section 2. We confirm that the Respondent/s has the necessary capacity and capability to fully meet or exceed the Requirements and will be available to deliver throughout the relevant Contract period.	Agree
Ethics:	In submitting this Registration the Respondents warrant that it: a. has not entered into any improper, illegal, collusive or anti-competitive arrangements with any Competitor b. has not directly or indirectly approached any representative of the Buyer (other than the Point of Contact) to lobby or solicit information in relation to the ROI c. has not attempted to influence, or provide any form of personal inducement, reward or benefit to any representative of the Buyer.	Agree
Conflict of Interest declaration:	The Respondents warrant that it has no actual, potential or perceived Conflict of Interest in submitting this Registration, or entering into a Contract to deliver the Requirements. Where a Conflict of Interest arises during the procurement process the Respondents will report it immediately to the Buyer's Point of Contact.	Agree

Details of Conflict of Interest: The following members of the Tai Tokerau Iwi Chief Executives Consortium via their individual asset holding companies, Te Runanga o Te Rarawa, Te Runanga o Whaingaroa and Te Runanga o Ngati Whatua, hereby declare their shareholding interest in the company of TNLP, which owns the fibre optic network between Auckland and Whangarei. This is not a direct interest as pursuant to the Companies Act 1955 and its subsequent amendments, Directors of Asset Holding Companies are required to work in the best interests of the Company and the relationship to their parent Group is defined by the Corporate Statement of Intent or similar. This statement is included for the purpose of transparency and reflects the high value placed upon this bid.

DECLARATION

We declare that in submitting the Registration and this declaration:

a. the information provided is true, accurate and complete and not misleading in any material respect
b. the Registration does not contain Intellectual Property that will breach a third party's rights
c. we have secured all appropriate authorisations to submit this Registration, to make the statements and to provide the information in the Registration and I/we am/are not aware of any impediments to enter into a Contract to deliver the Requirements.

We understand that the falsification of information, supplying misleading information or the suppression of material information in this declaration and the Registration may result in the Registration being eliminated from further participation in the ROI process and may be grounds for termination of any Contract awarded as a result of the ROI.

By signing this declaration the signatories overleaf represent, warrant and agree that they have been authorised by the Respondents to make this declaration on their behalf.

Sheryl Lorraine Mai, Mayor
Whangarei District Council

Simon Weston, Acting Chief Executive
Whangarei District Council

John Robertson, Chair of Commissioners
Kaipara District Council

Jill McPherson, Chief Executive
Kaipara District Council

Colin John Bennet Dale, Chief Executive Officer
(Acting)
Far North District Council

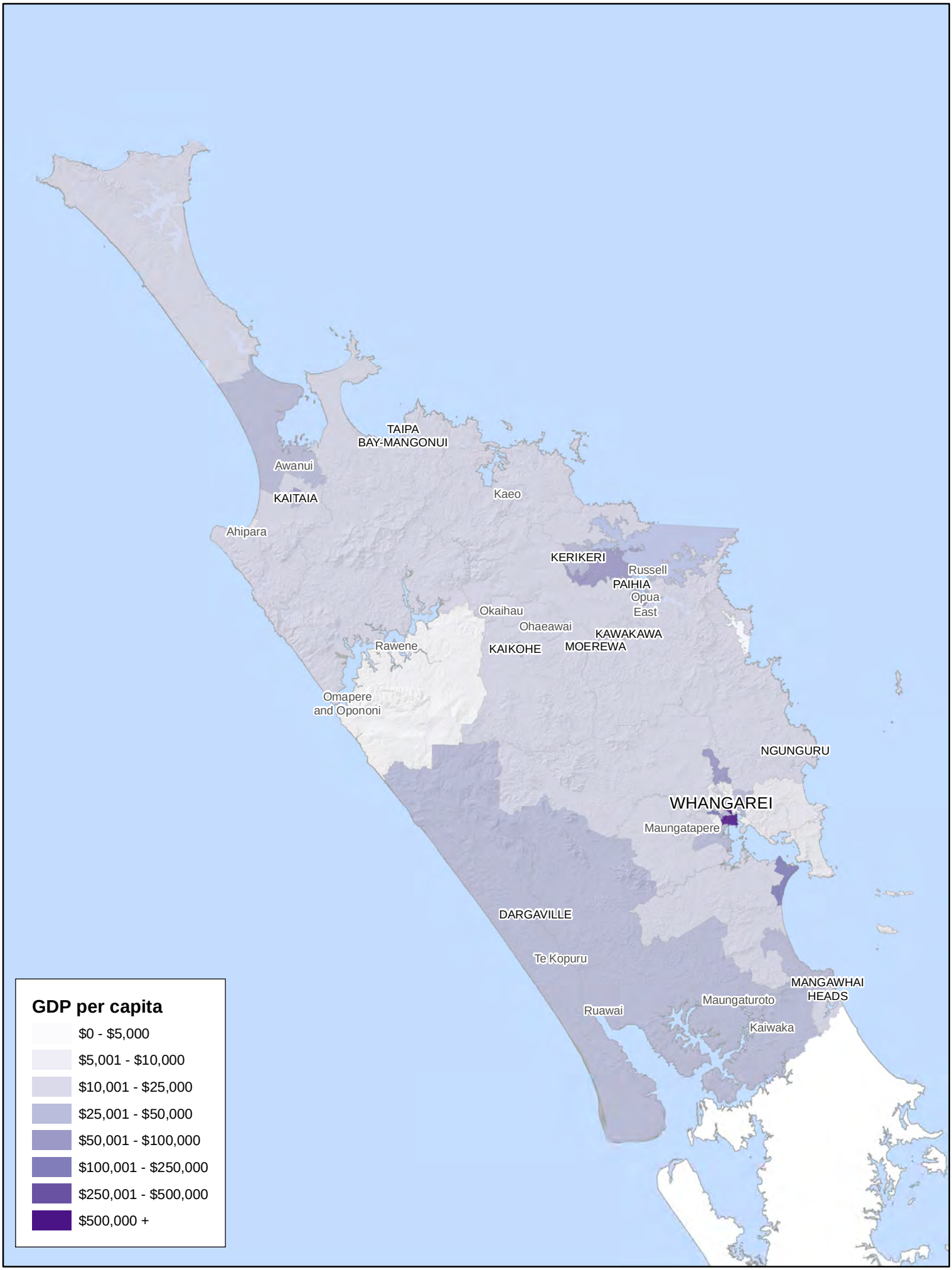
John McGregor Carter, Mayor
Far North District Council

William Mervyn Shepherd, Chair
Northland Regional Council

Malcolm Charles Nicolson, Chief Executive
Northland Regional Council

Allen Wihongi, Chief Executive Officer
For TeTaitokerau Iwi Chief Executives' Forum

Appendices



GDP per capita

(Source: Statistics New Zealand)

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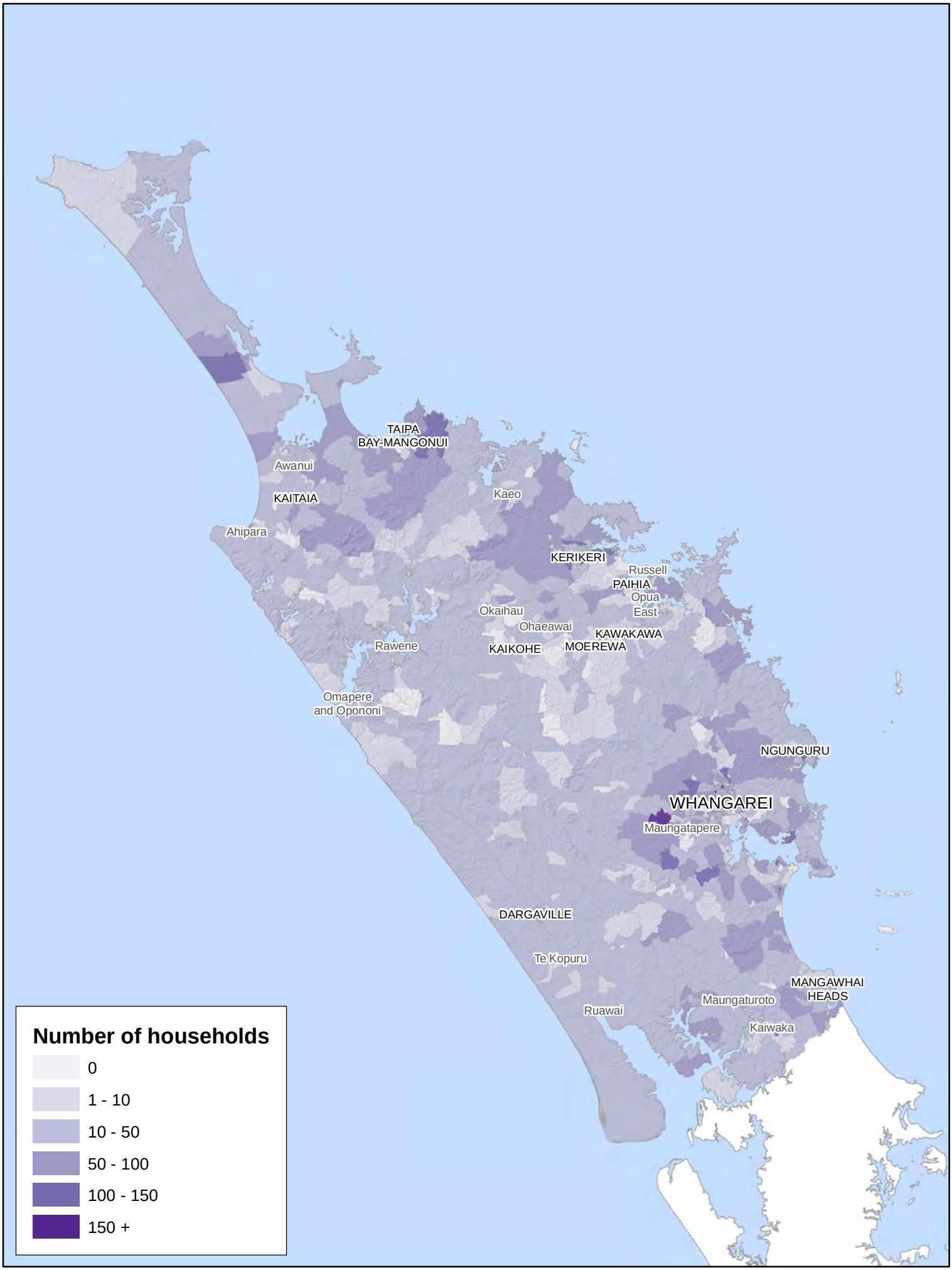

NORTHLAND REGIONAL COUNCIL

Number of households

(Source: Census 2013, Statistics New Zealand)

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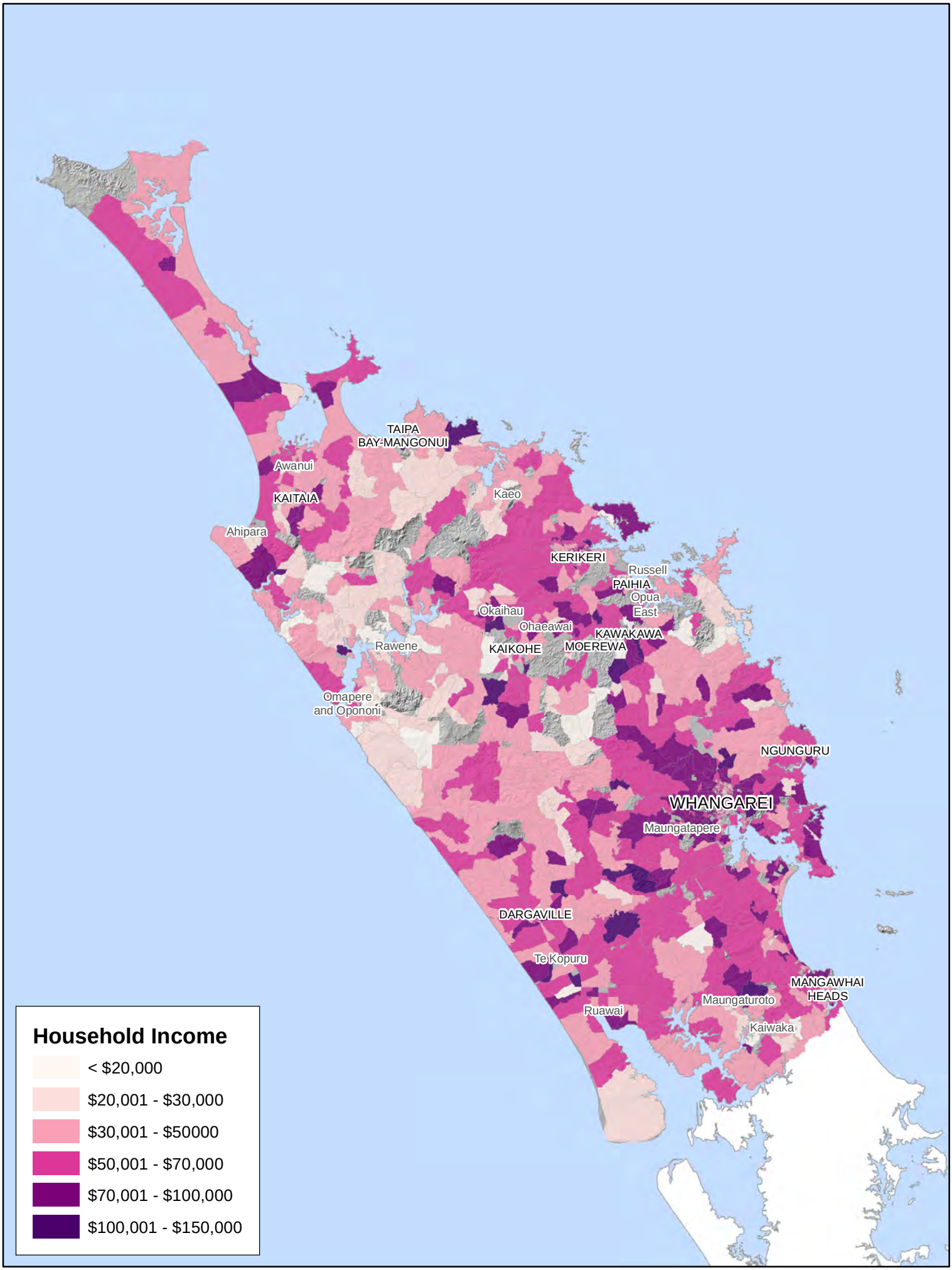

NORTHLAND REGIONAL COUNCIL

Household income

(Source: Census 2013, Statistics New Zealand)

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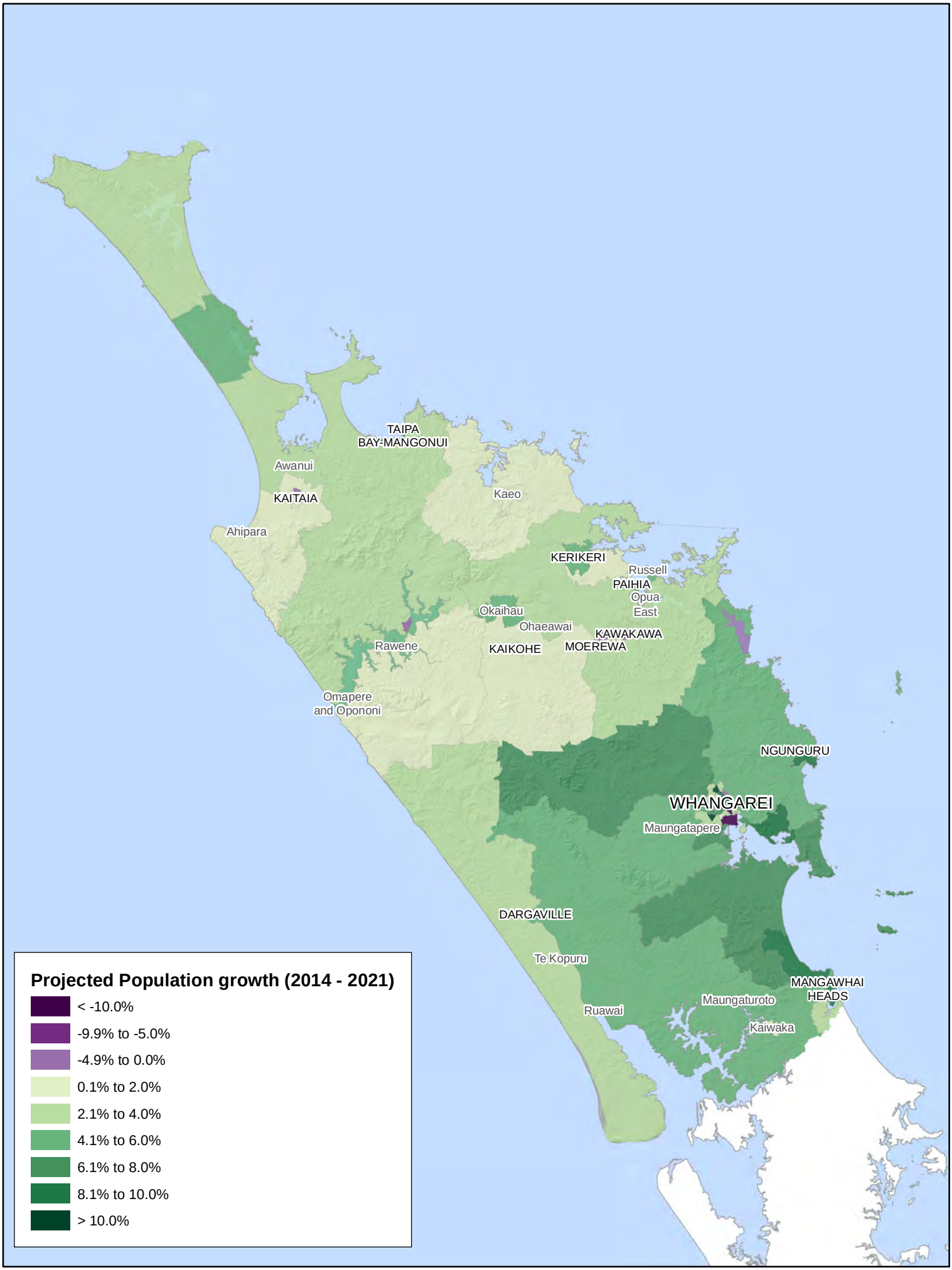

NORTHLAND REGIONAL COUNCIL

Projected Population growth to 2021

(Source: Statistics New Zealand)

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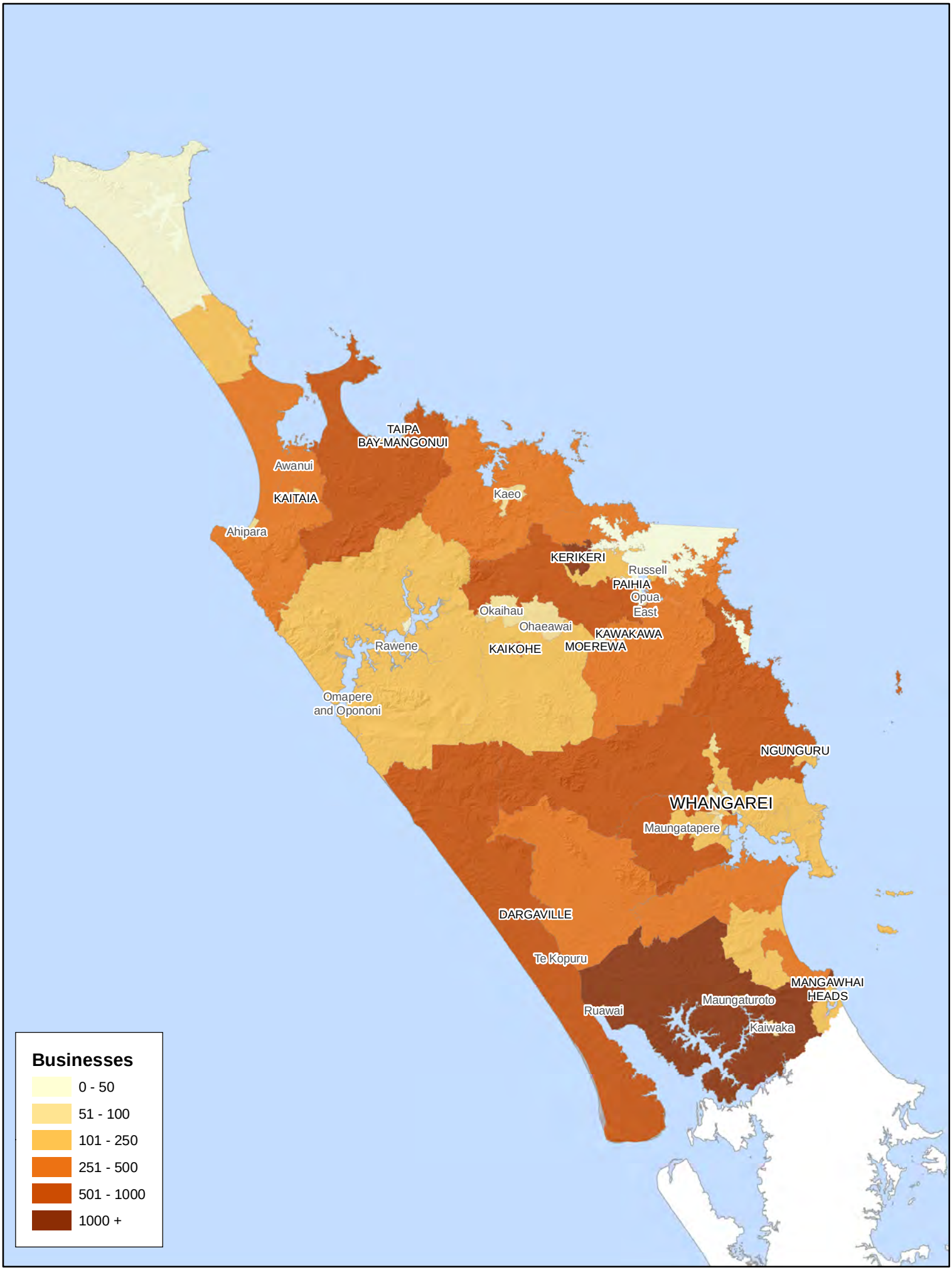

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Number of businesses

(Source: Statistics New Zealand)

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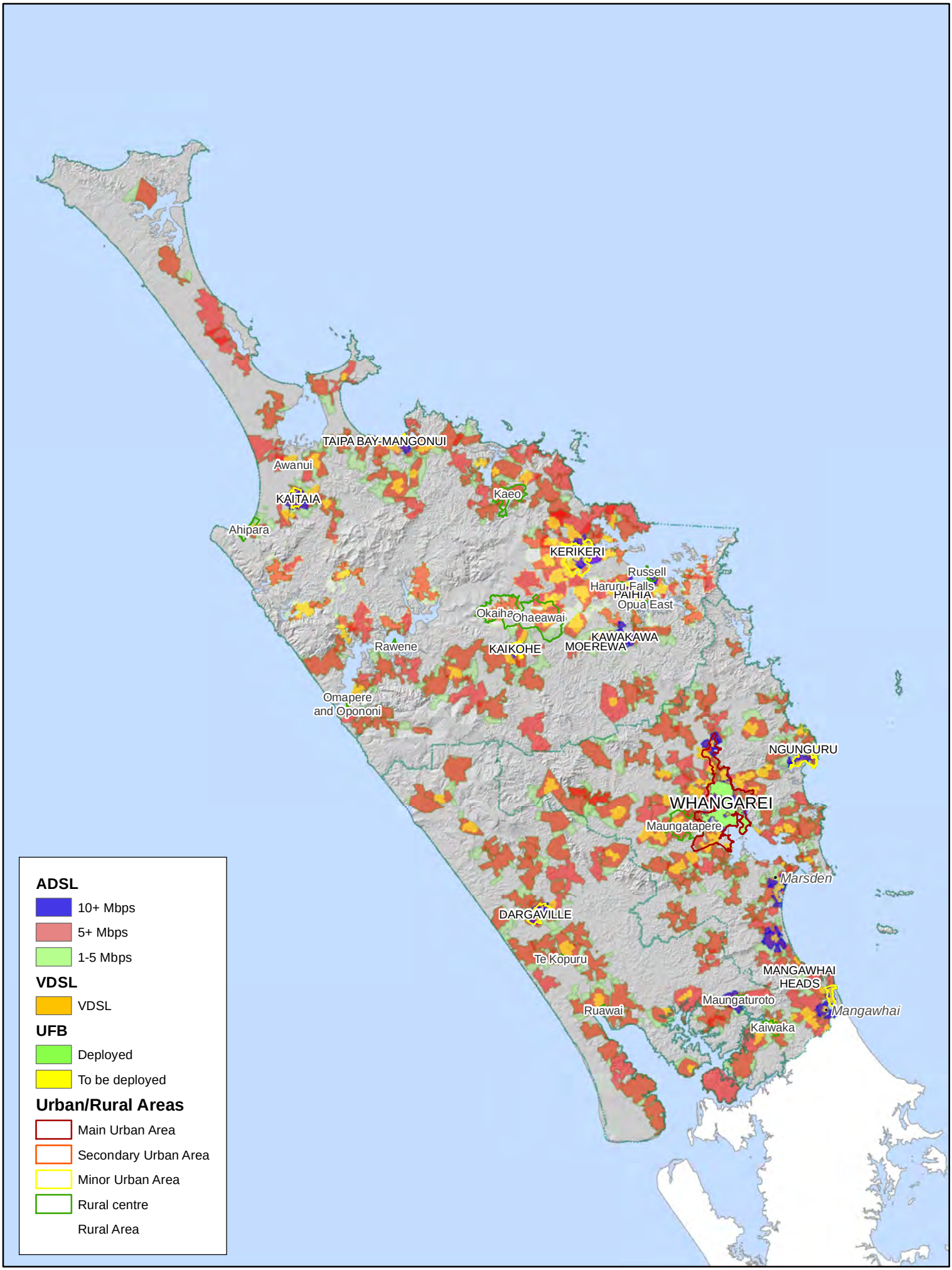

NORTHLAND REGIONAL COUNCIL

Existing Fibre Coverage

(Source: Local Government, Statistics NZ, NZRS)

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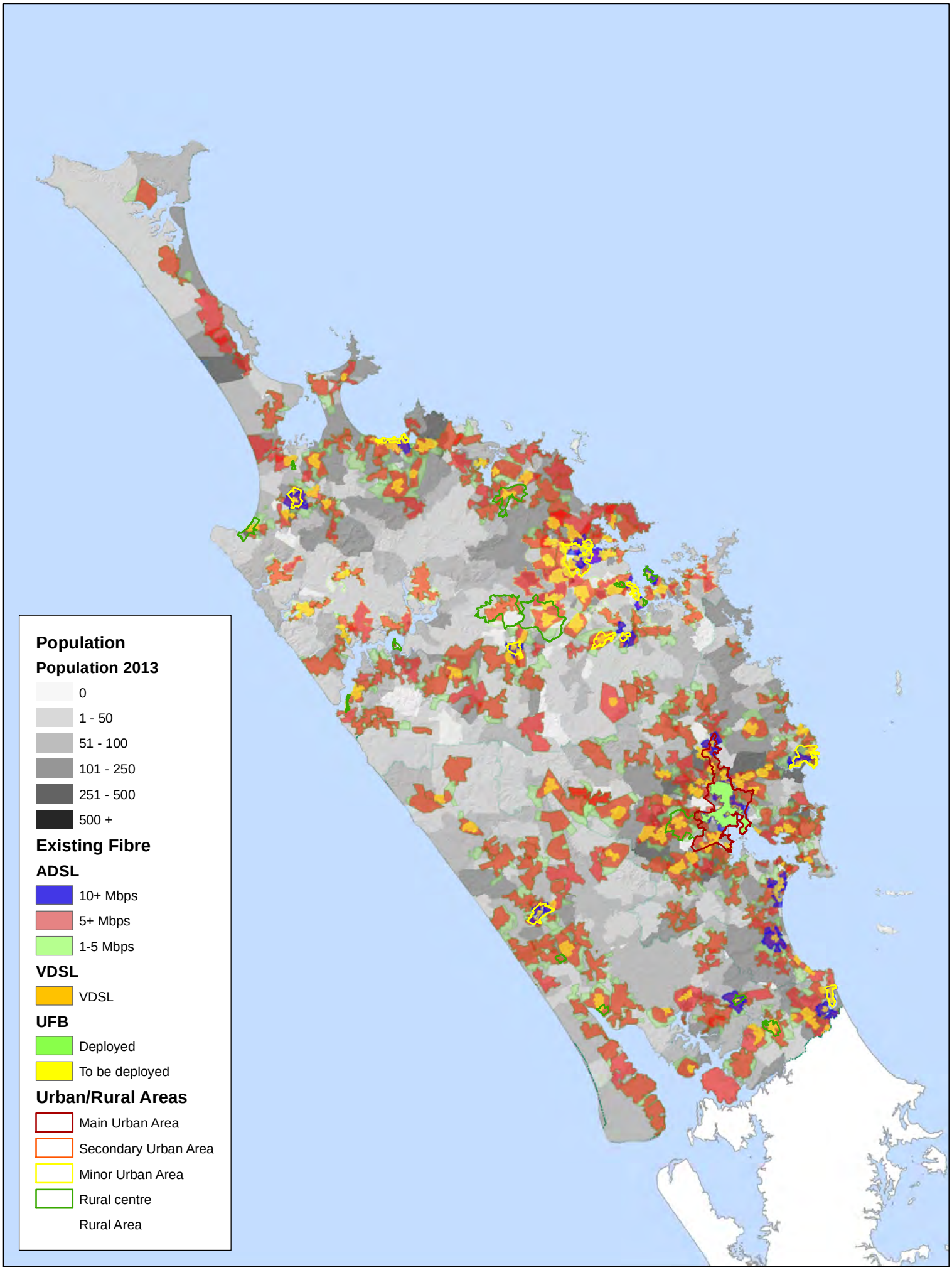

NORTHLAND REGIONAL COUNCIL

Population + Existing Fibre Coverage

(Source: Census 2013, Statistics New Zealand, NZRS)

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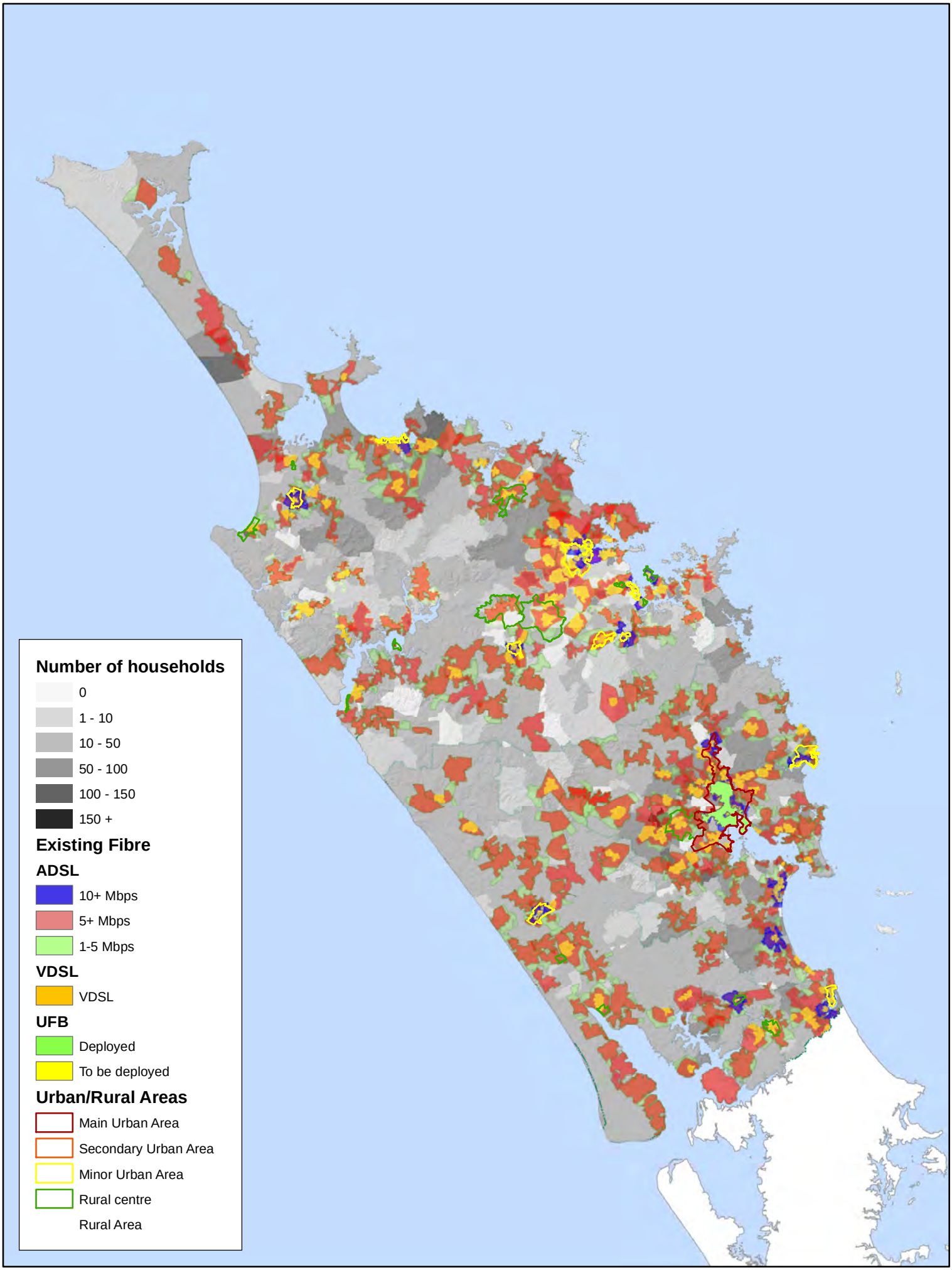

NORTHLAND REGIONAL COUNCIL

No. Households + Existing Fibre Coverage

(Source: Census 2013, Statistics New Zealand, NZRS)

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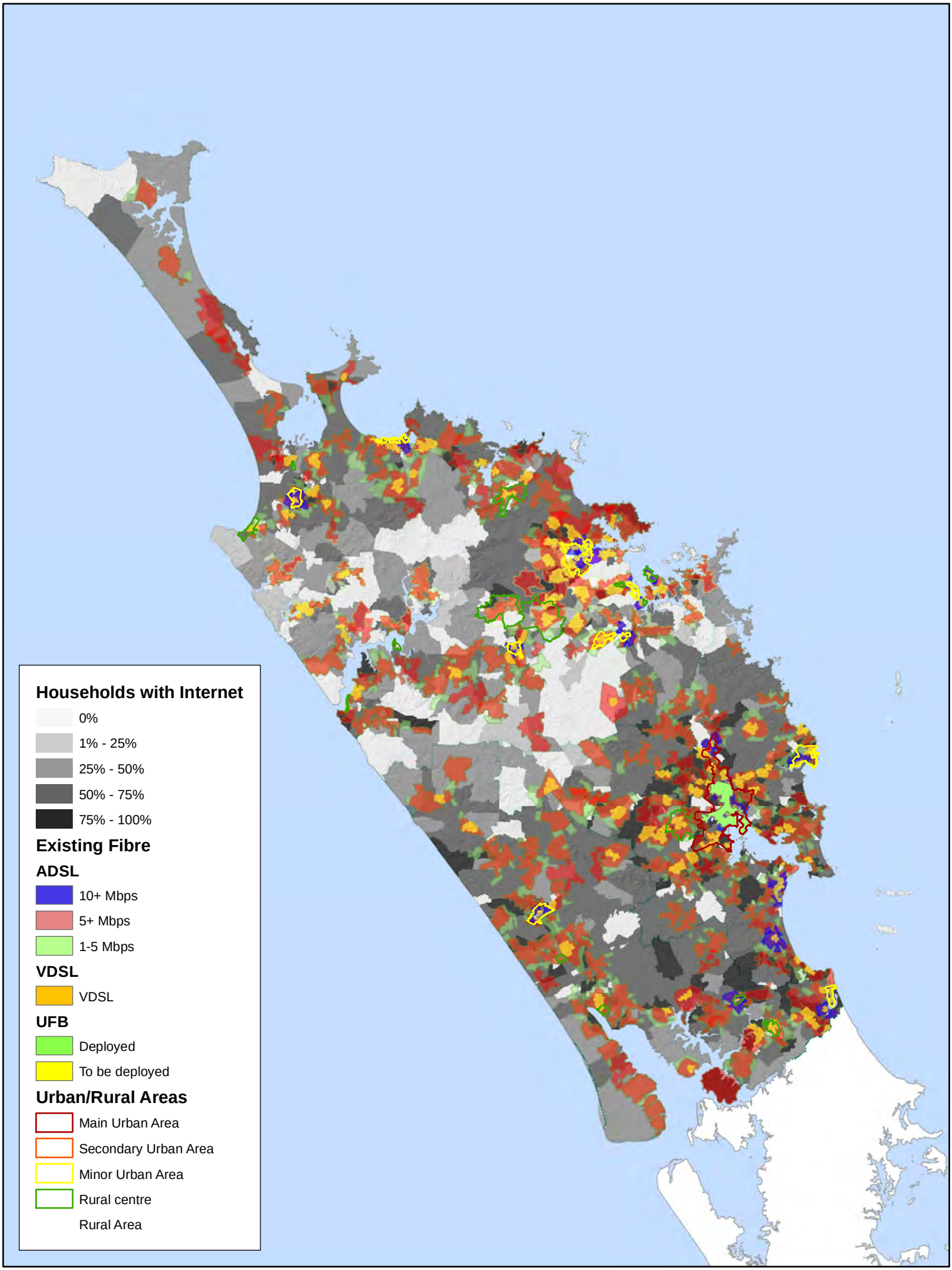

NORTHLAND REGIONAL COUNCIL

Households with Internet + Existing Fibre Coverage

(Source: Census 2013, Statistics New Zealand, NZRS)

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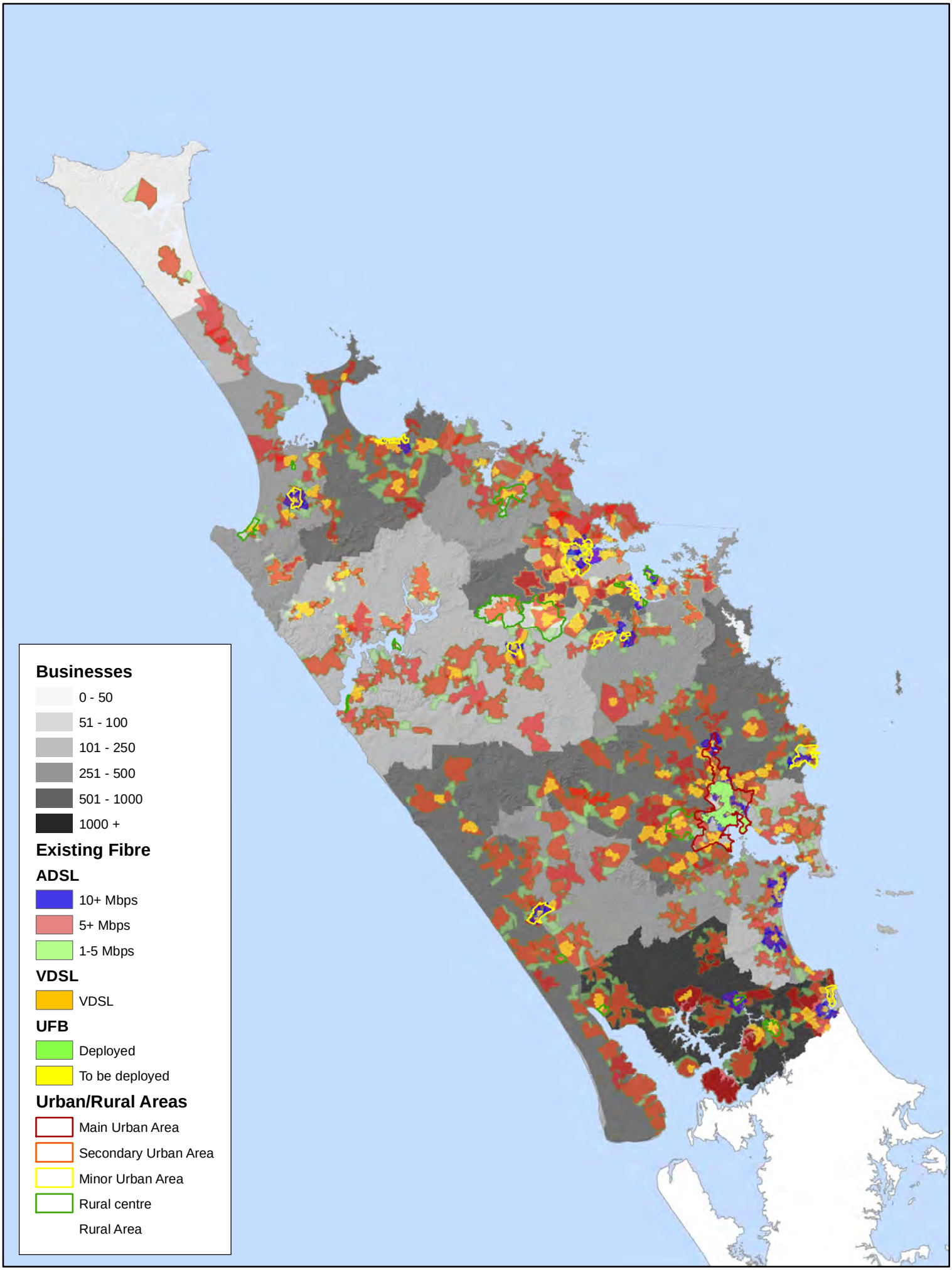

NORTHLAND REGIONAL COUNCIL

Number of Businesses + Existing Fibre Coverage

(Source: Census 2013, Statistics New Zealand, NZRS)

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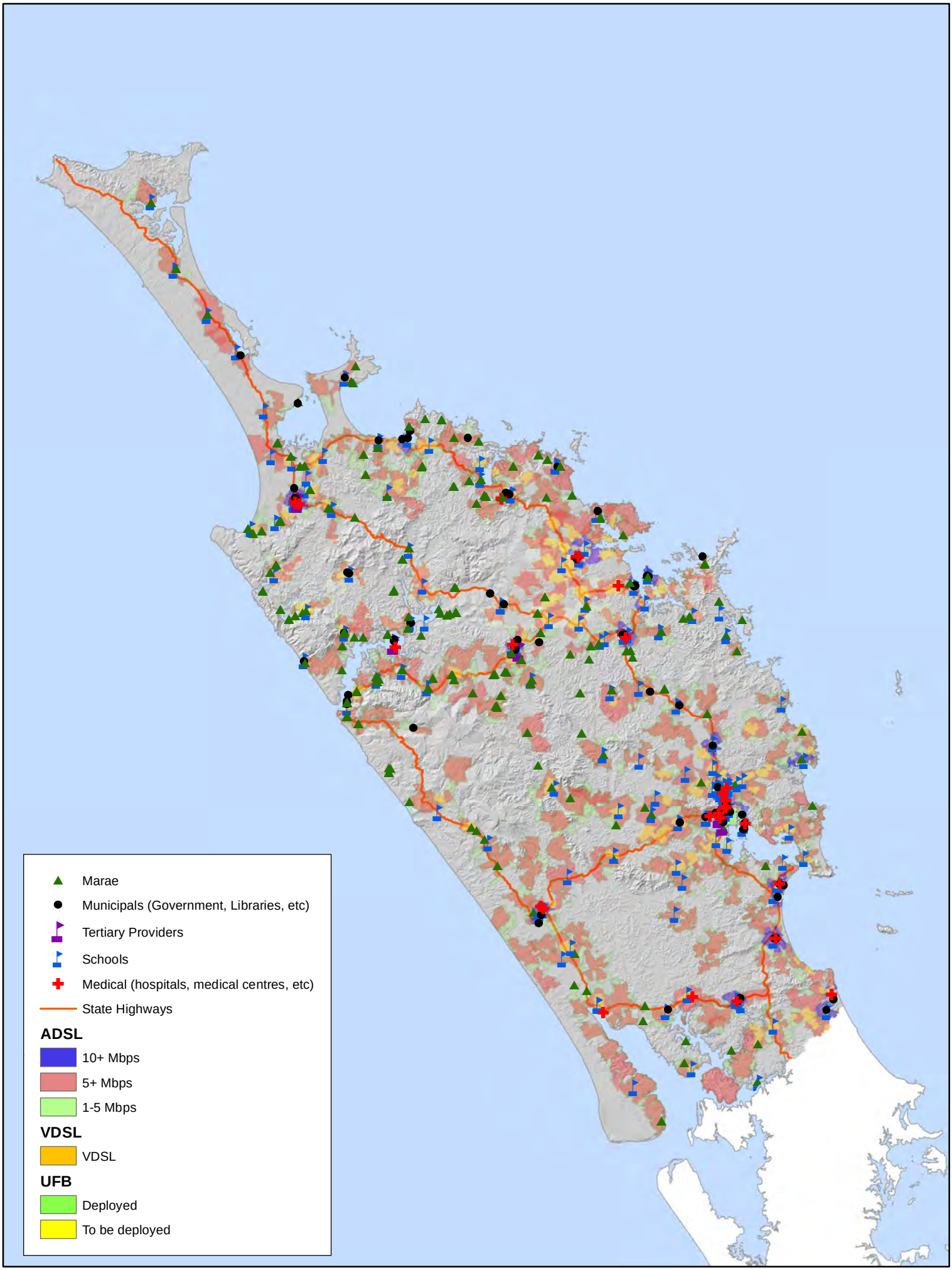

NORTHLAND REGIONAL COUNCIL

MMUSH + Existings Fibre coverage

(Source: Local Government, Statistics NZ, NZRS)

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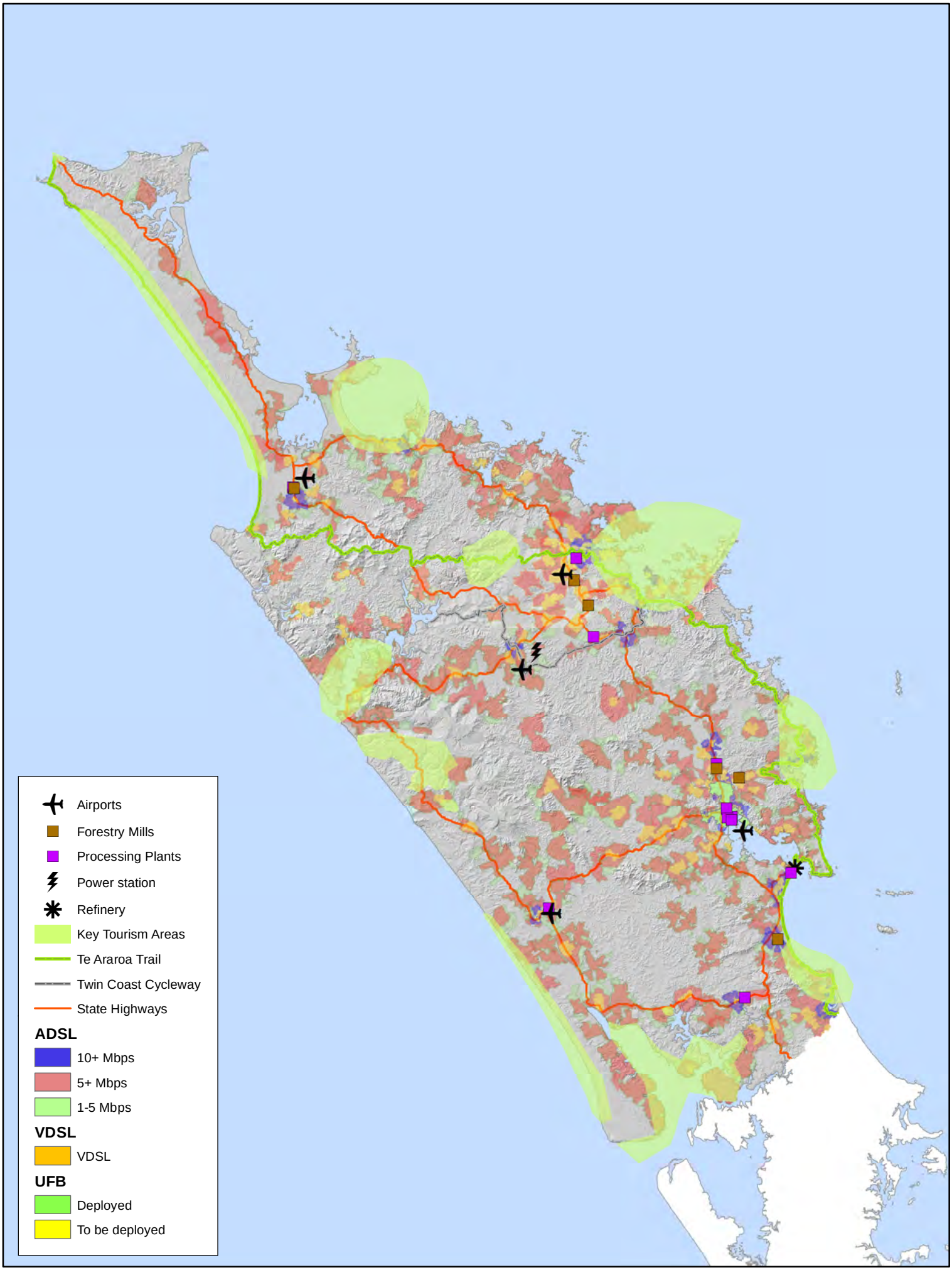

NORTHLAND REGIONAL COUNCIL

Key Assets + Existings Fibre coverage

(Source: Local Government, Statistics NZ, NZRS)

Name: 2015_Combinations_RBI.mxd
User: janellep
Date Saved: 4/06/2015 12:35:00 p.m.

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Projection NZTM. Datum NZTM2000.
DISCLAIMER:
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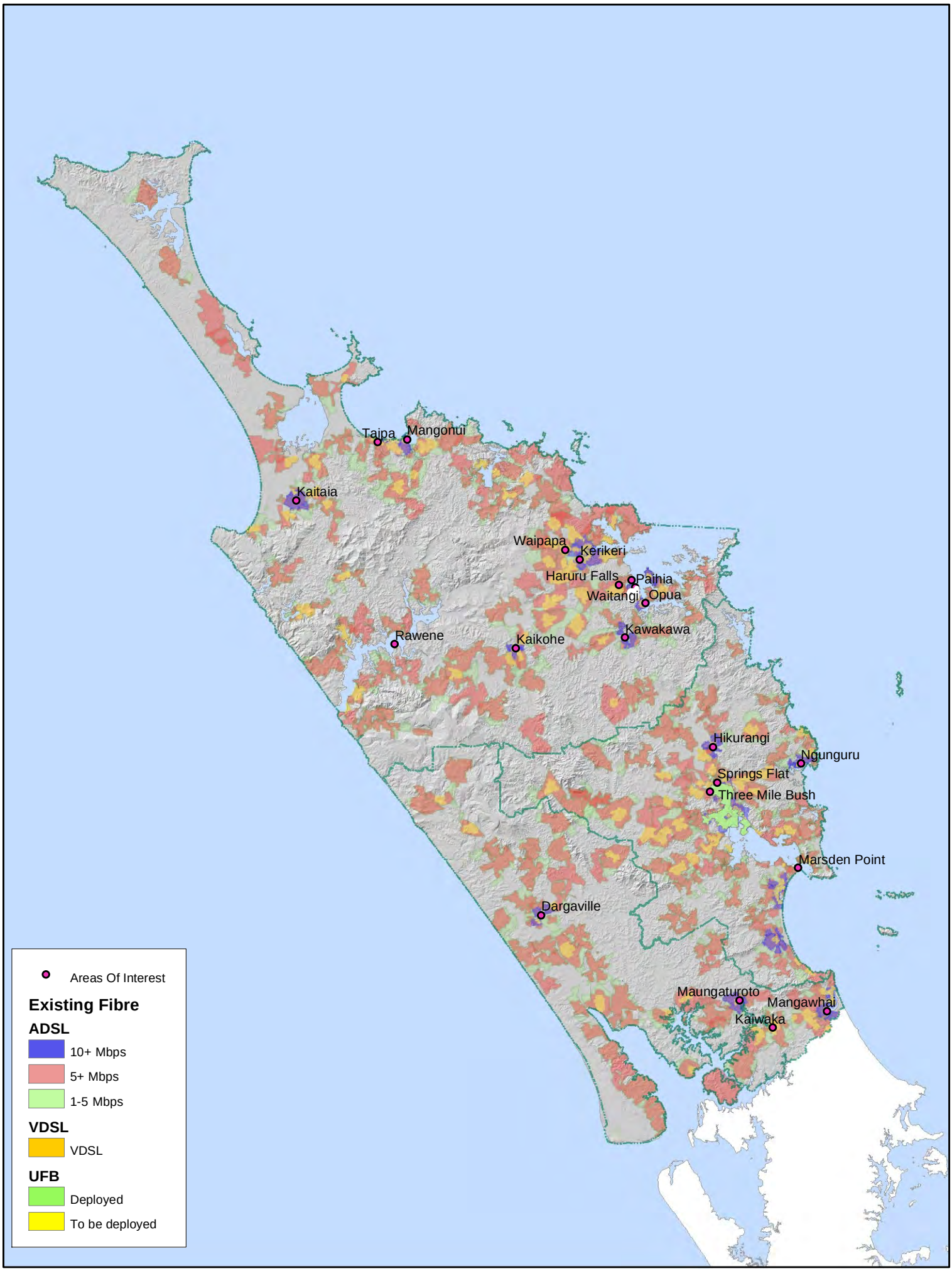
N

W:\GIS Projects\FinanceIT\Consultants\Northland Inc\Digital ROI\Mxd\2015_Combinations_RBI.mxd



NORTHLAND REGIONAL COUNCIL

Proposed Northland Towns for UFB2 Deployment

(Source: Local Government, Statistics NZ, NZRS)

Name: 2015_Combinations.mxd
User: janellep
Date Saved: 11/06/2015 1:06:16 p.m.

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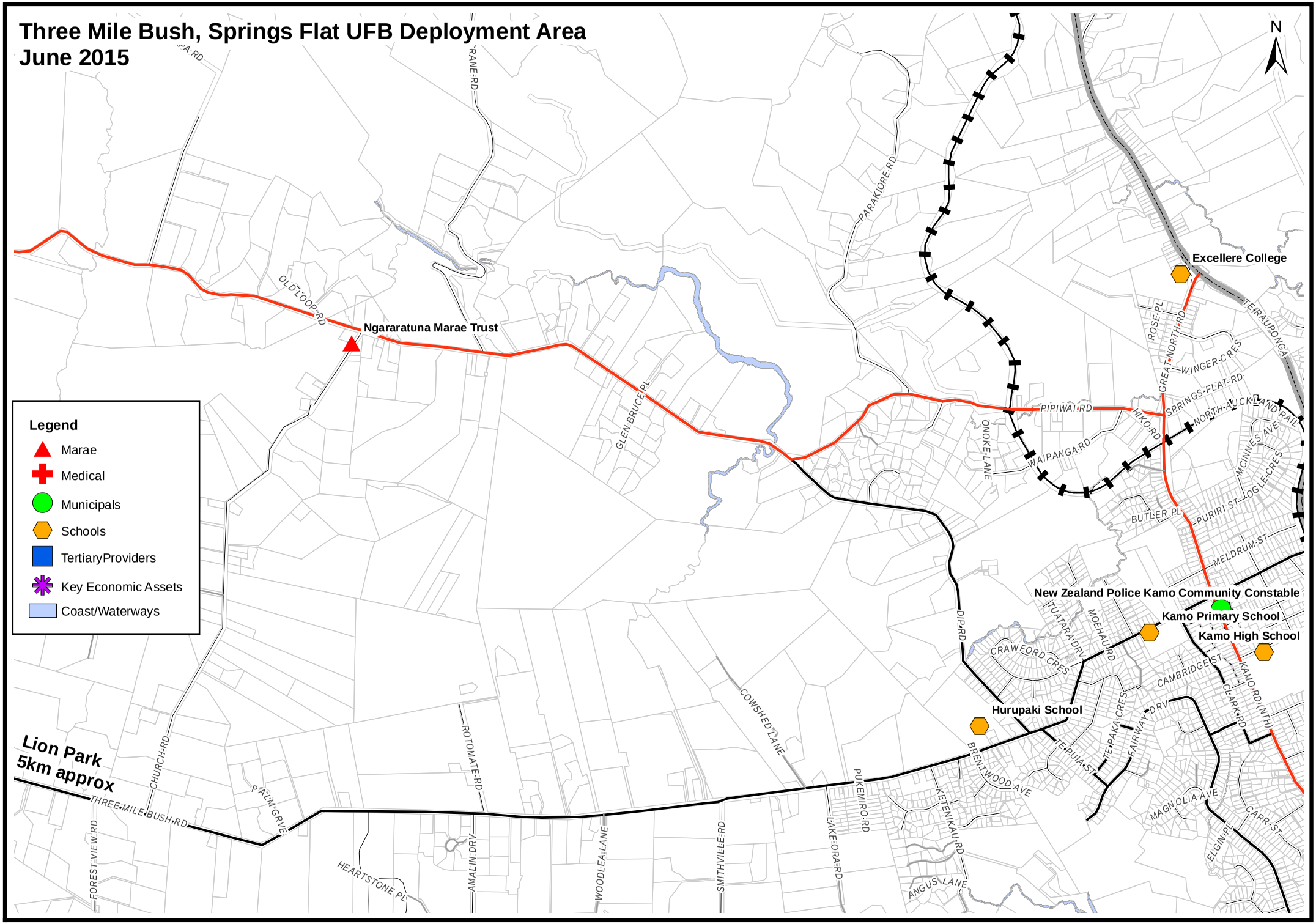
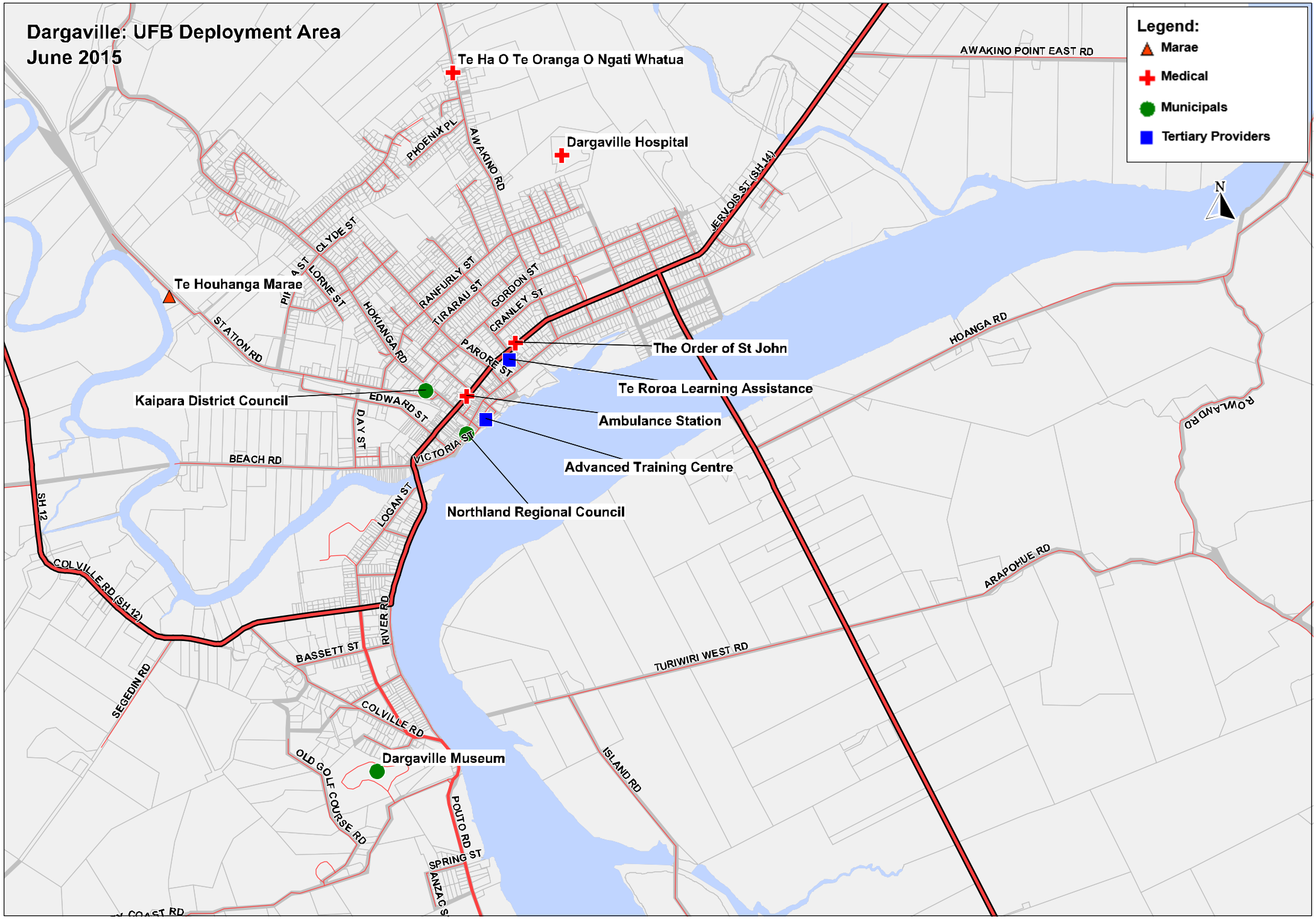
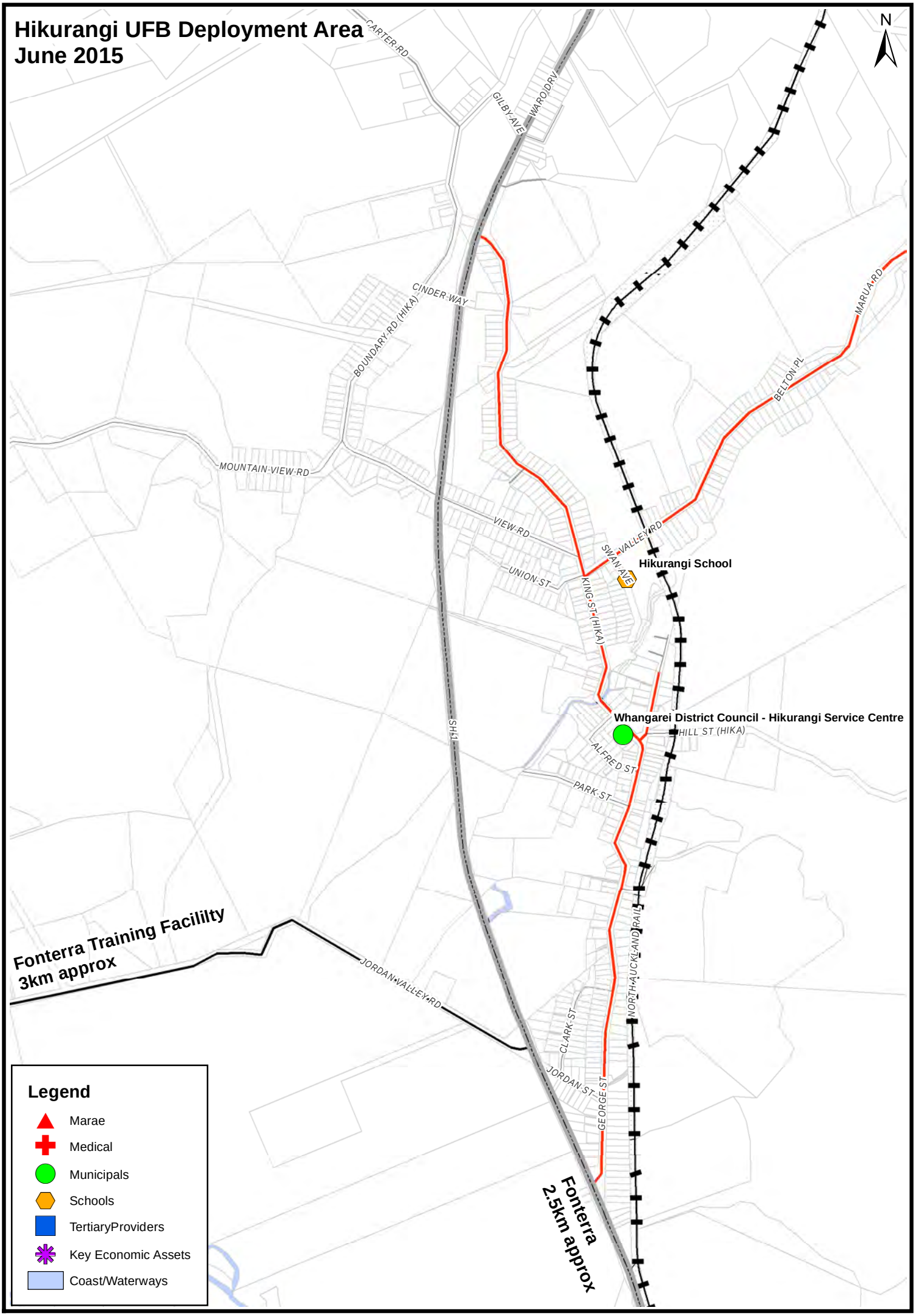
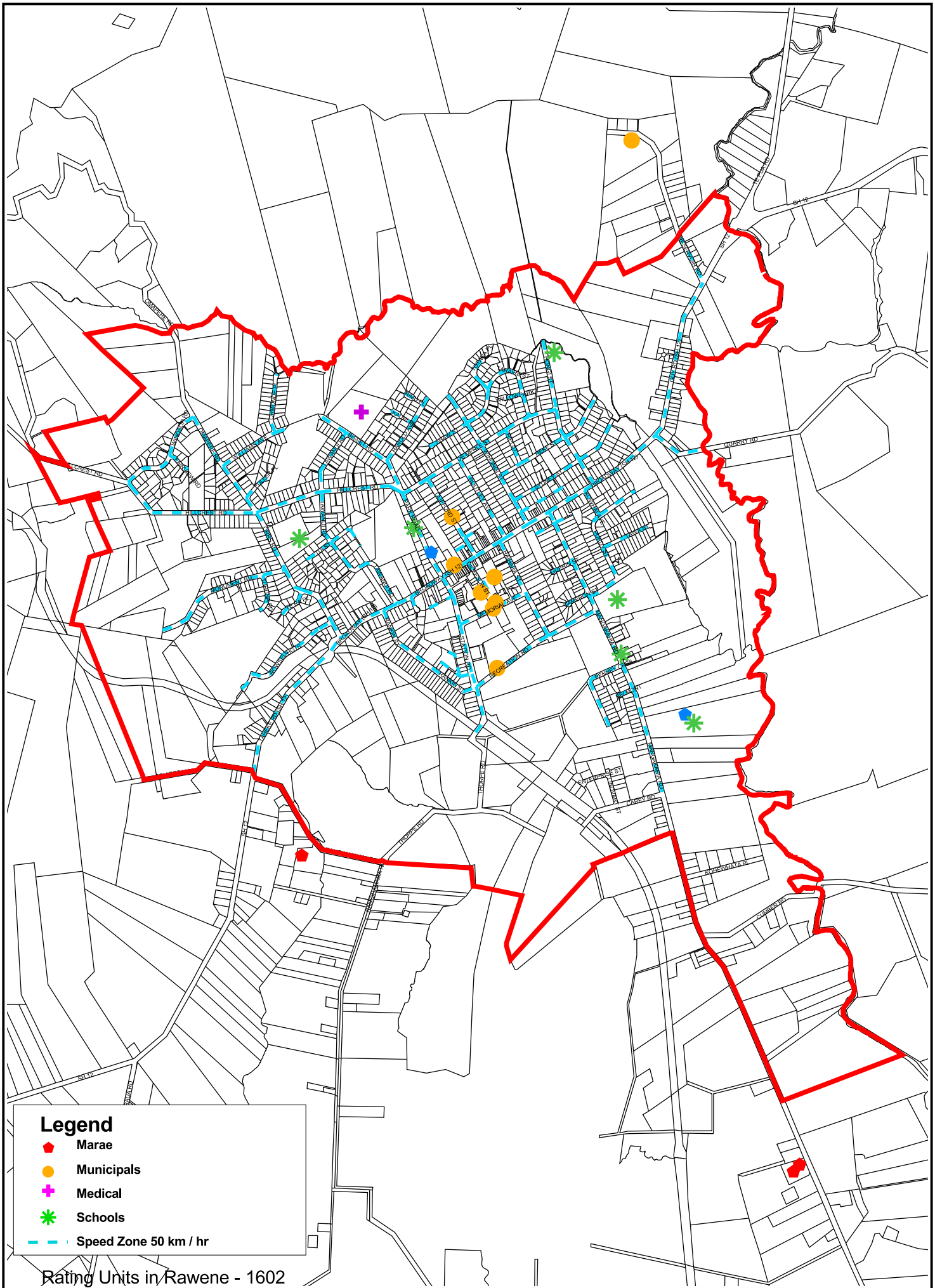

Three Mile Bush, Springs Flat UFB Deployment Area
June 2015
N
Legend
Marae
Medical
Municipals
Schools
TertiaryProviders
Key Economic Assets
Coast/Waterways
Ngararatuna Marae Trust
Excellere College
New Zealand Police Kamo Community Constable
Kamo Primary School
Kamo High School
Hurupaki School
Lion Park
5km approx
OLD LOOP RD
PARAKIORE RD
TERAURONGA
ROSE PL
GREAT NORTH RD
WINGER CRES
SPRINGS FLAT RD
NORTH AUCKLAND RAIL
PIPIWAI RD
HIKO RD
ONOKE LANE
WAIPANGA RD
GLEN BRUCE PL
MCINNIES AVE
OGLE CRES
BUTLER PL
PURIRI ST
MELDRUM ST
DIP RD
ITUATARA DRV
MOEHAU RD
CRAWFORD CRES
CAMBRIDGE ST
KAMO RD (NTH)
CLARK RD
TE PAKA CRES
FAIRWAY DRV
TE PUIA ST
BRENTWOOD AVE
MAGNOLIA AVE
CARR ST
ELGIN PL
KETENIKAU RD
ANGUS LANE
PUKEMIRO RD
LAKE ORA RD
COWSHED LANE
SMITHVILLE RD
WOODLEA LANE
AMALIN DRV
ROTOMATE RD
HEARTSTONE PL
PALM GRVE
THREE MILE BUSH RD
FOREST VIEW RD
CHURCH RD


Dargaville: UFB Deployment Area
June 2015
Legend:
Marae
Medical
Municipals
Tertiary Providers
N
Te Ha O Te Oranga O Ngati Whatua
Dargaville Hospital
Te Houhanga Marae
Kaipara District Council
The Order of St John
Te Roroa Learning Assistance
Ambulance Station
Advanced Training Centre
Northland Regional Council
Dargaville Museum
AWAKINO POINT EAST RD
JERVOIS ST (SH 14)
AWAKINO RD
PHOENIX PL
CLYDE ST
4 ST
LORNE ST
HOKIANGA RD
RANFURLY ST
TIRARAU ST
GORDON ST
CRANLEY ST
PARORE ST
STATION RD
EDWARD ST
DAY ST
VICTORIA ST
BEACH RD
LOGAN ST
HOANGA RD
ROWLAND RD
SH 12
COLVILLE RD (SH 12)
RIVER RD
BASSETT ST
SEGEDIN RD
COLVILLE RD
OLD GOLF COURSE RD
POUTO RD
SPRING ST
ISLAND RD
ARAPOHUE RD
TURIWIRI WEST RD


Hikurangi UFB Deployment Area
June 2015
N
CARTER RD
GILBY AVE
WARO DR
CINDER WAY
BOUNDARY RD (HIKA)
MOUNTAIN VIEW RD
VIEW RD
UNION ST
KING ST (HIKA)
SWAN AVE
VALLEY RD
BELTON PL
MARUA RD
Hikurangi School
Whangarei District Council - Hikurangi Service Centre
HILL ST (HIKA)
ALFRED ST
PARK ST
SH1
NORTH AUCKLAND RAIL
CLARK ST
JORDAN ST
GEORGE ST
JORDAN VALLEY RD
Fonterra Training Facililty
3km approx
Fonterra
2.5km approx
Legend
Marae
Medical
Municipals
Schools
TertiaryProviders
Key Economic Assets
Coast/Waterways



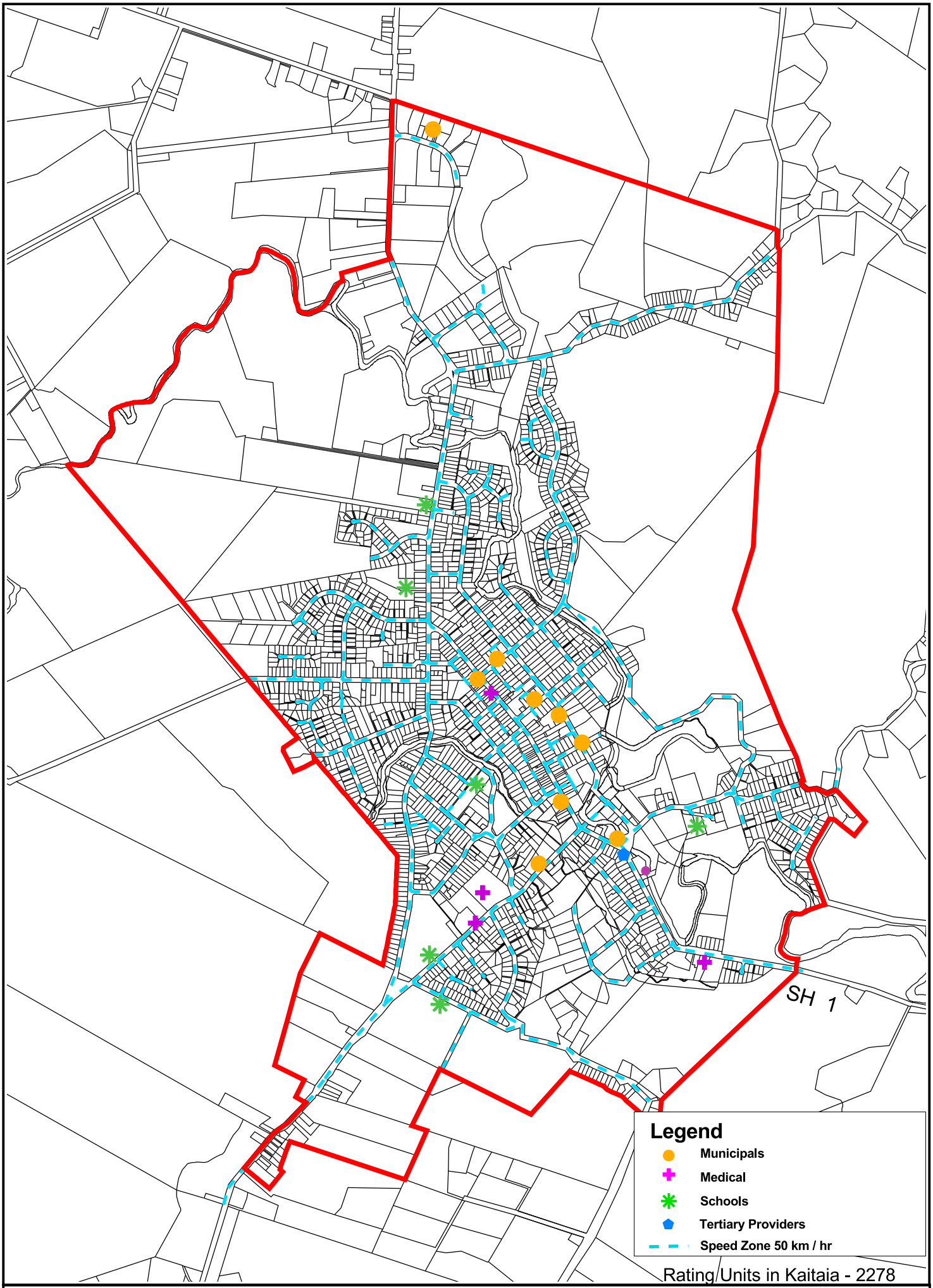
Scale 1:20,000 @ A4

5 June 2015

N

BROADBAND PROJECT

KAIKOHE TOWNSHIP



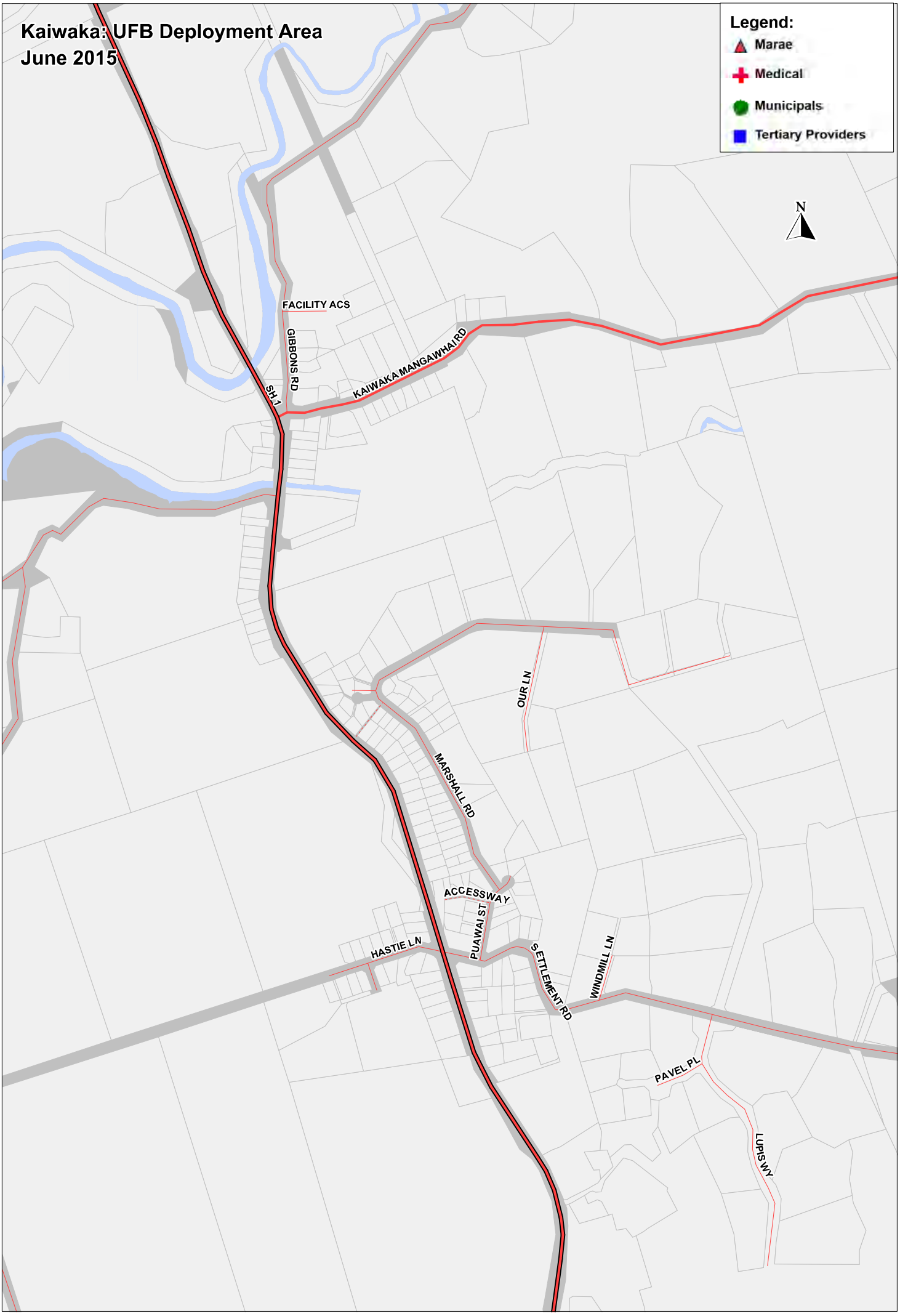
Scale 1:20,000 @ A4

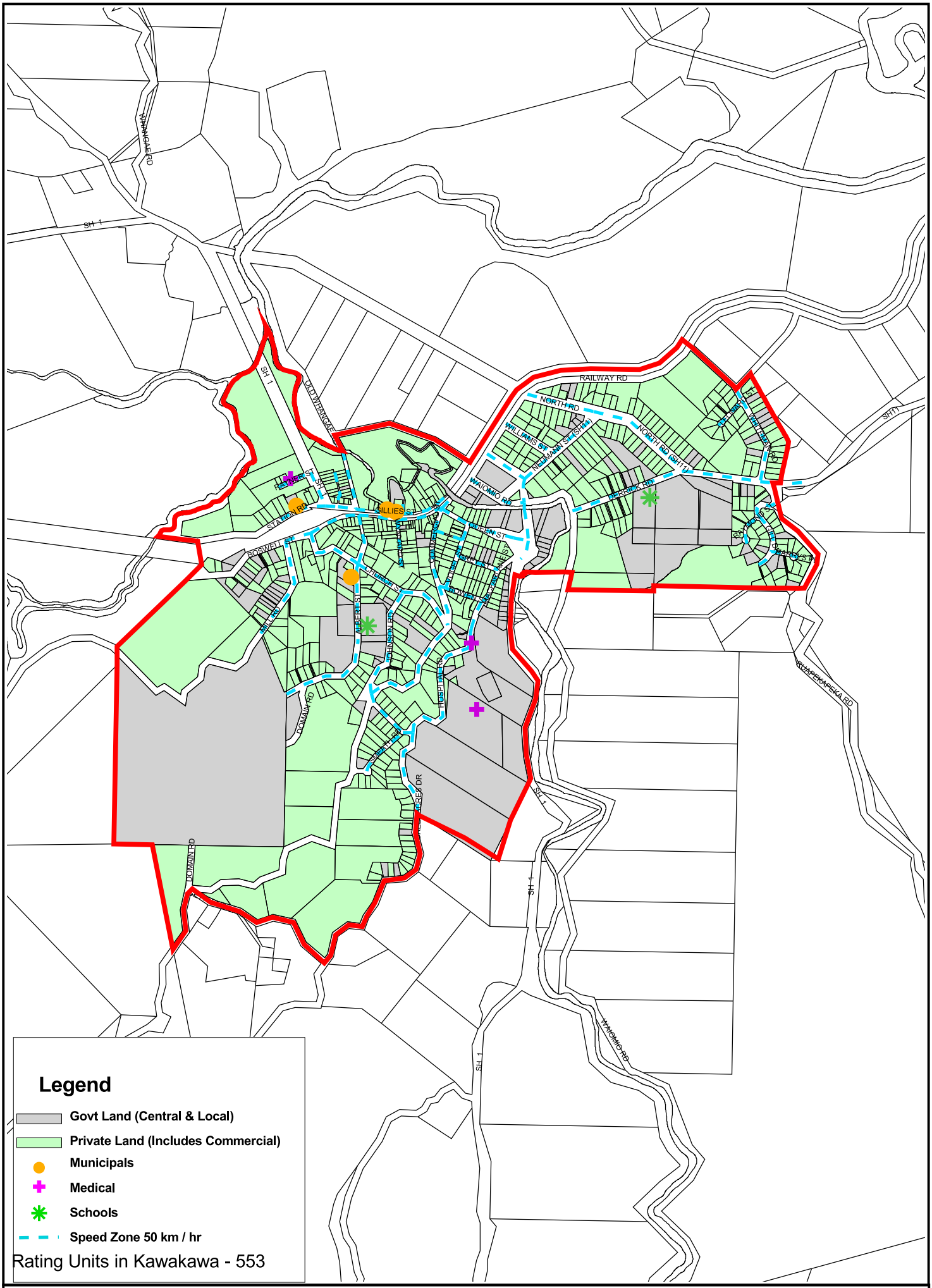
5 June 2015

N

BROADBAND PROJECT

KAITAIA TOWNSHIP


Kaiwaka: UFB Deployment Area
June 2015
Legend:
Marae
Medical
Municipals
Tertiary Providers
N
FACILITY ACS
GIBBONS RD
SH 1
KAIWAKA MANGAWHAI RD
OUR LN
MARSHALL RD
ACCESSWAY
PUAWAI ST
HASTIE LN
SETTLEMENT RD
WINDMILL LN
PAVEL PL
LUPIS WY



Legend

- Govt Land (Central & Local)
- Private Land (Includes Commercial)
- Municipals
- Medical
- Schools
- Speed Zone 50 km / hr

Rating Units in Kawakawa - 553

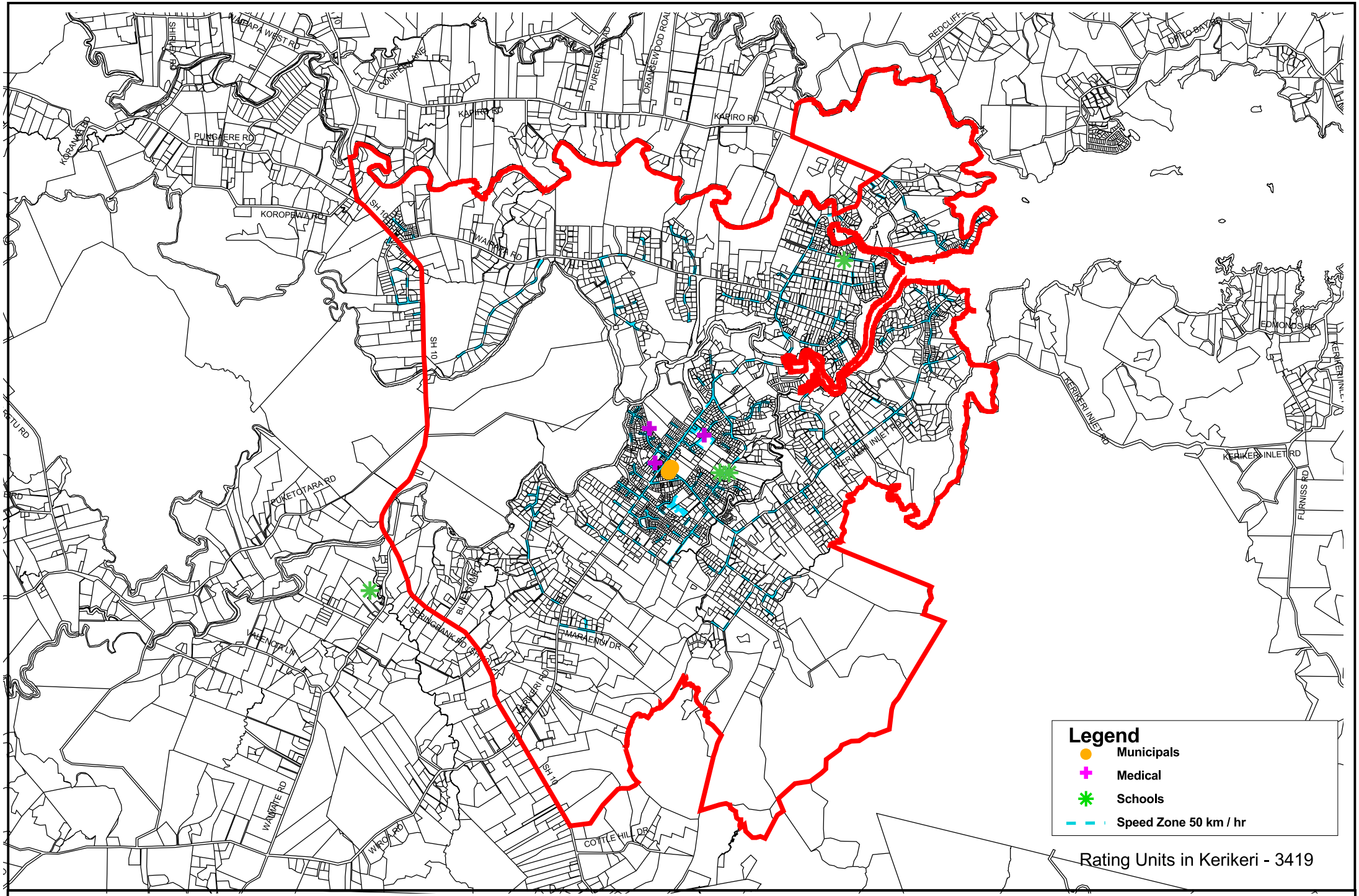
Scale 1:15,000 @ A4

16 June 2015

N

BROADBAND PROJECT

KAWAKAWA TOWNSHIP

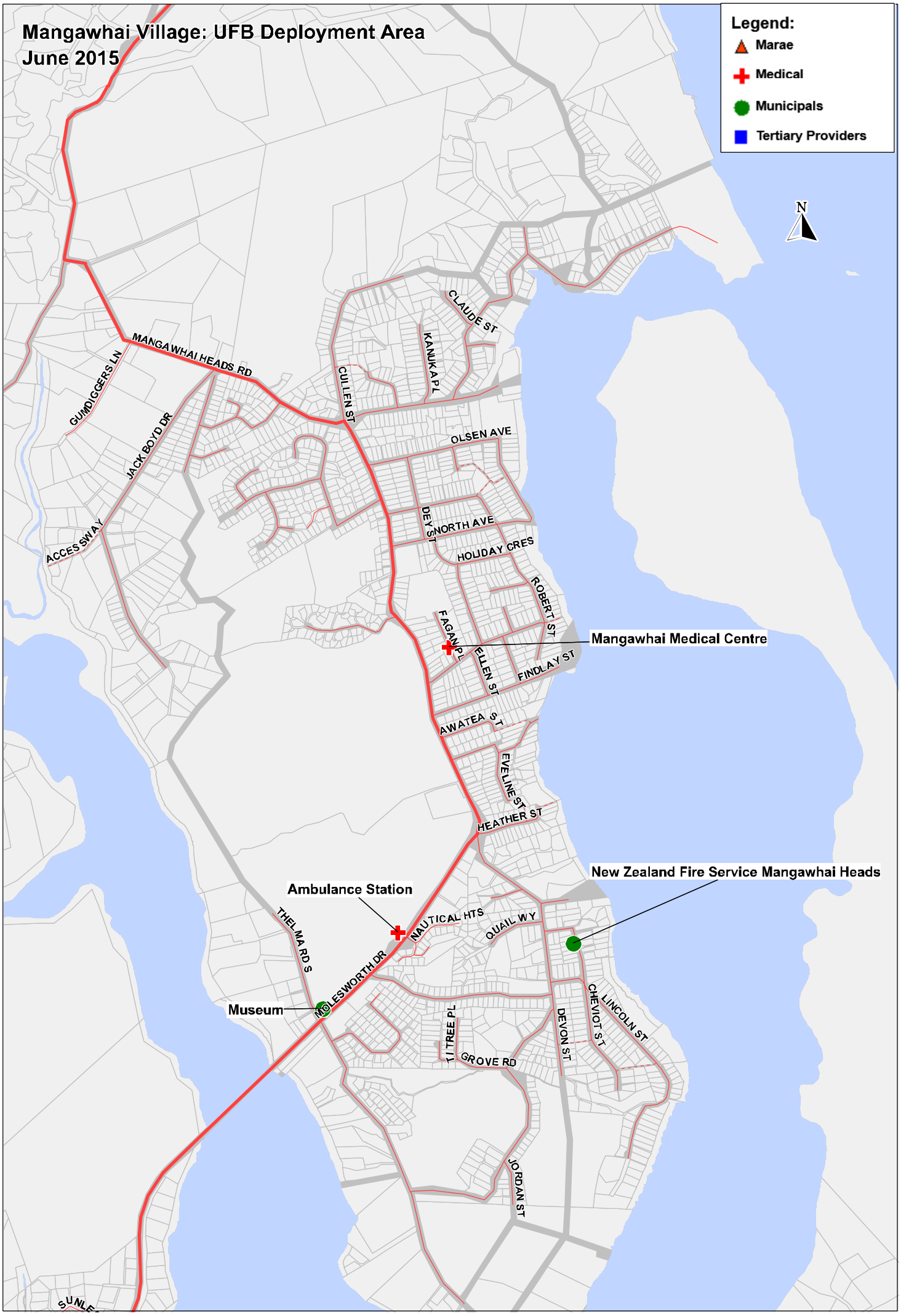


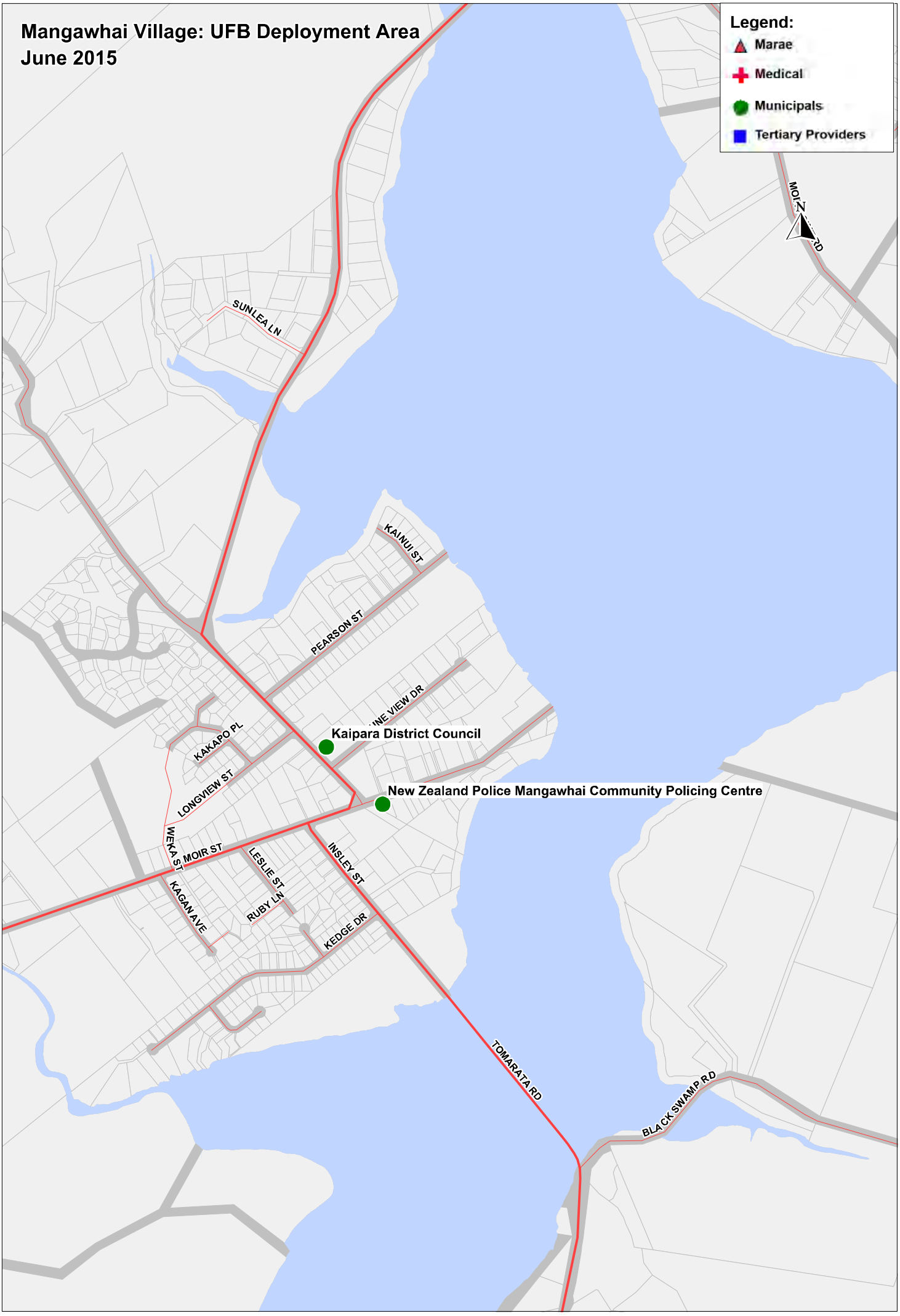
Scale 1:50,000 @ A4

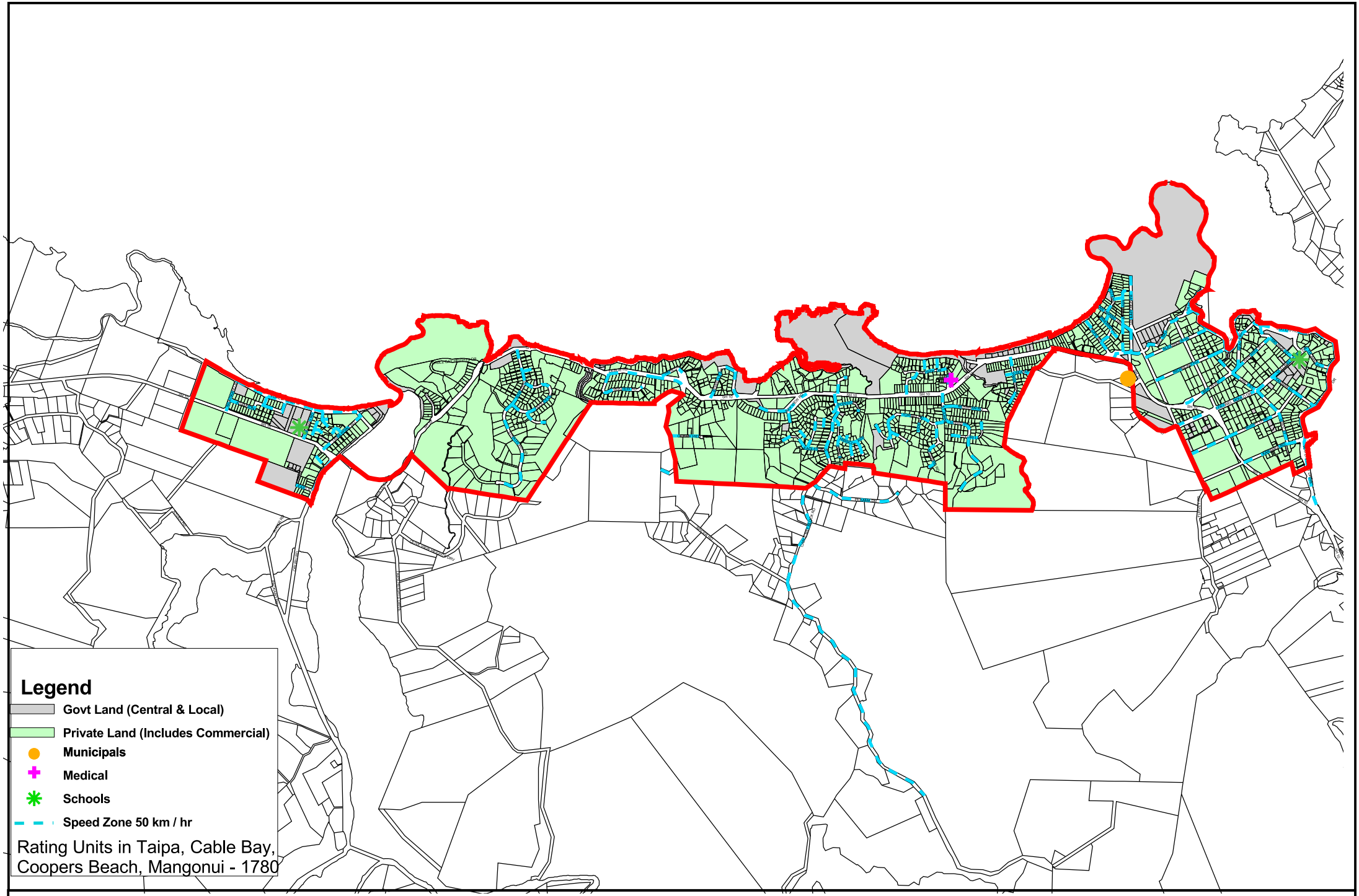
5 June 2015

BROADBAND PROJECT

KERIKERI / WAIPAPA TOWNSHIP


Mangawhai Village: UFB Deployment Area
June 2015
Legend:
Marae
Medical
Municipals
Tertiary Providers
N
MANGAWHAI HEADS RD
GUMDIGGERS LN
JACK BOYD DR
ACCESS WAY
CULLEN ST
KANUKA PL
CLAUDE ST
OLSEN AVE
DEY ST
NORTH AVE
HOLIDAY CRES
ROBERT ST
FAGAN PL
ELLEN ST
FINDLAY ST
Mangawhai Medical Centre
AWATEA ST
EVELINE ST
HEATHER ST
New Zealand Fire Service Mangawhai Heads
Ambulance Station
NAUTICAL HTS
QUAIL WY
THELMA RD S
MOLESWORTH DR
Museum
TI TREE PL
GROVE RD
DEVON ST
CHEVIOT ST
LINCOLN ST
JORDAN ST


Mangawhai Village: UFB Deployment Area
June 2015
Legend:
Marae
Medical
Municipals
Tertiary Providers
N
SUNLEA LN
KAINUI ST
PEARSON ST
INE VIEW DR
Kaipara District Council
KAKAPO PL
LONGVIEW ST
New Zealand Police Mangawhai Community Policing Centre
WEKA ST
MOIR ST
LESLIE ST
INSLEY ST
KAGAN AVE
RUBY LN
KEDGE DR
TOMARATA RD
BLACK SWAMP RD



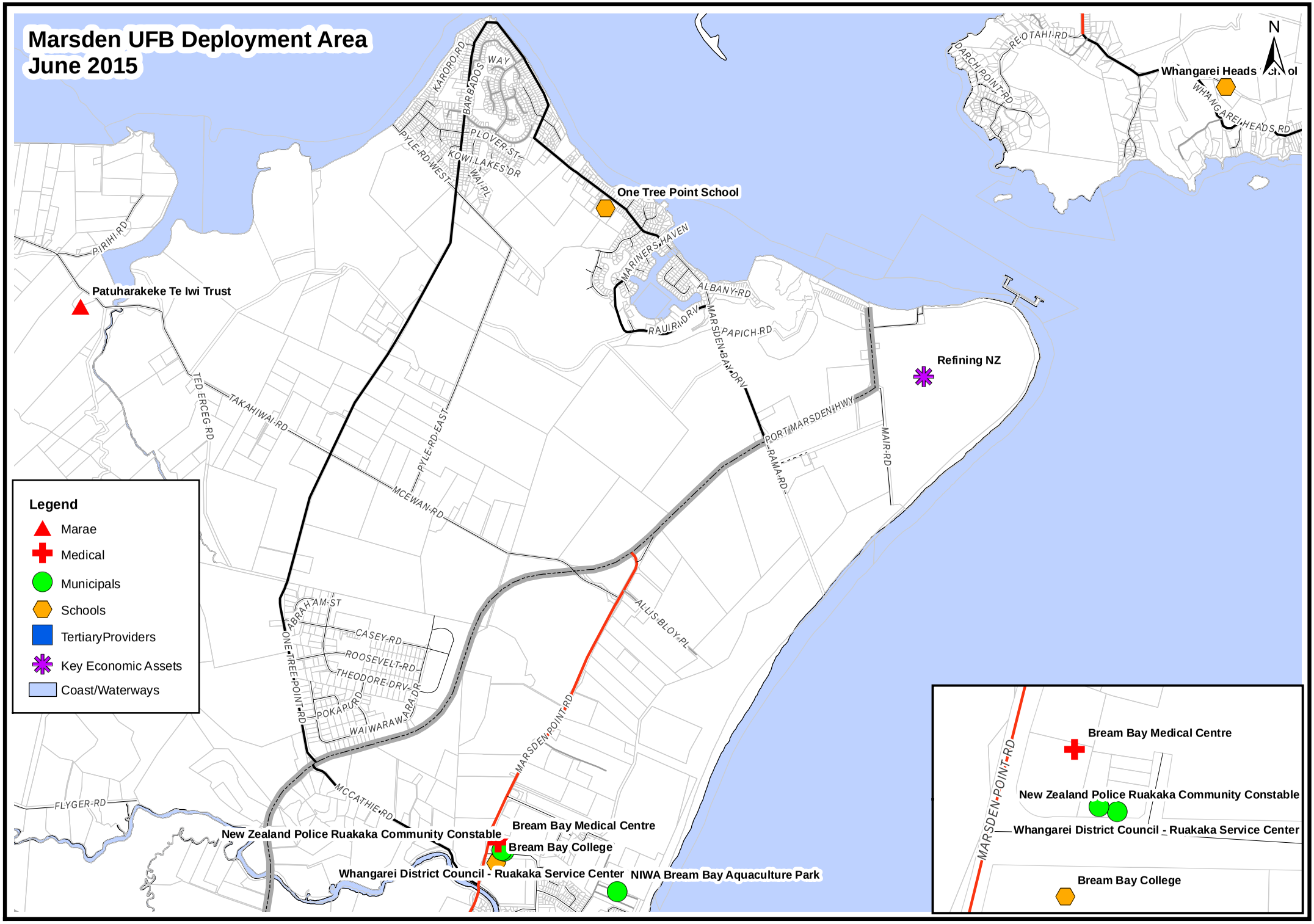
Scale 1:30,000 @ A4

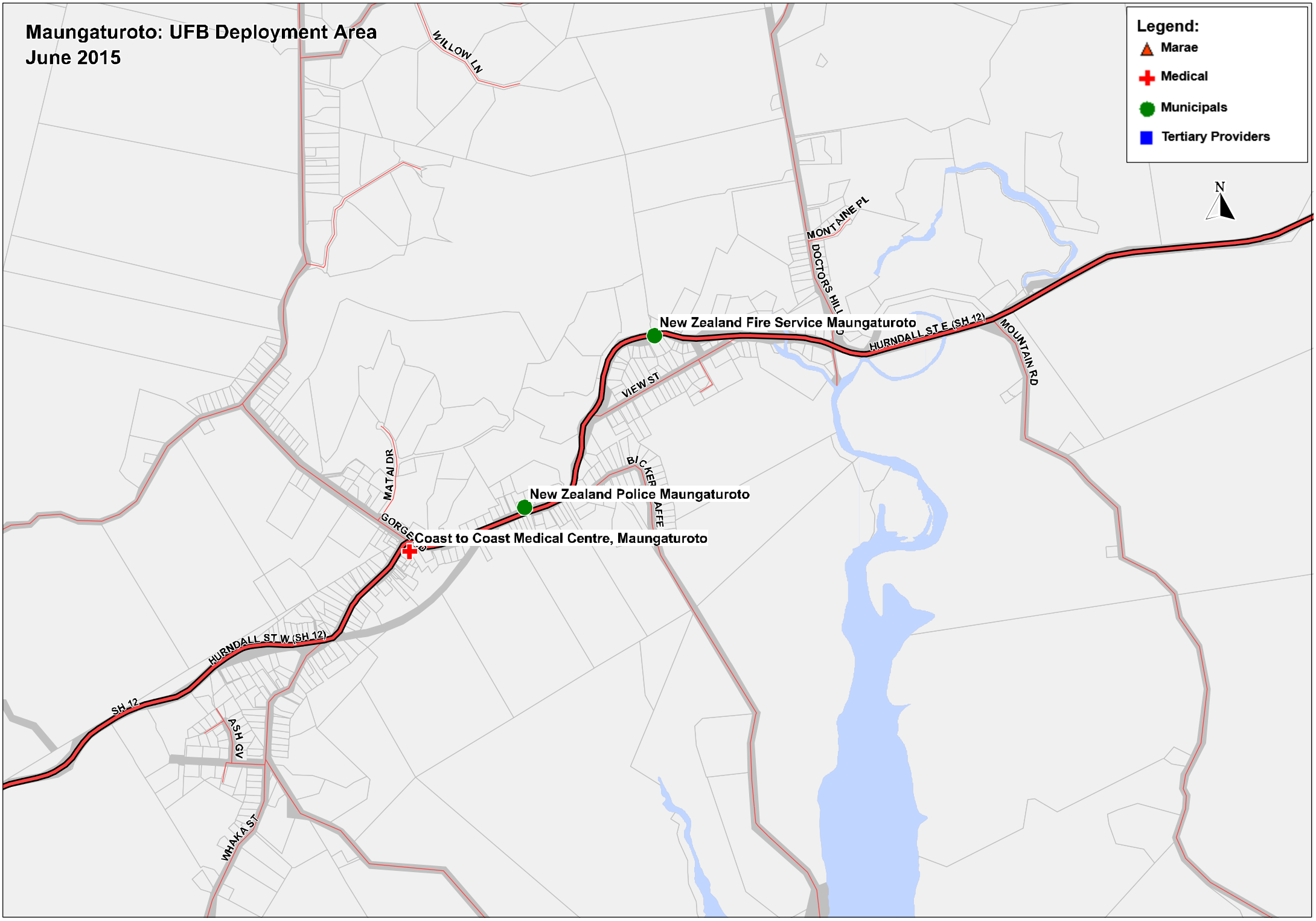
16 June 2015

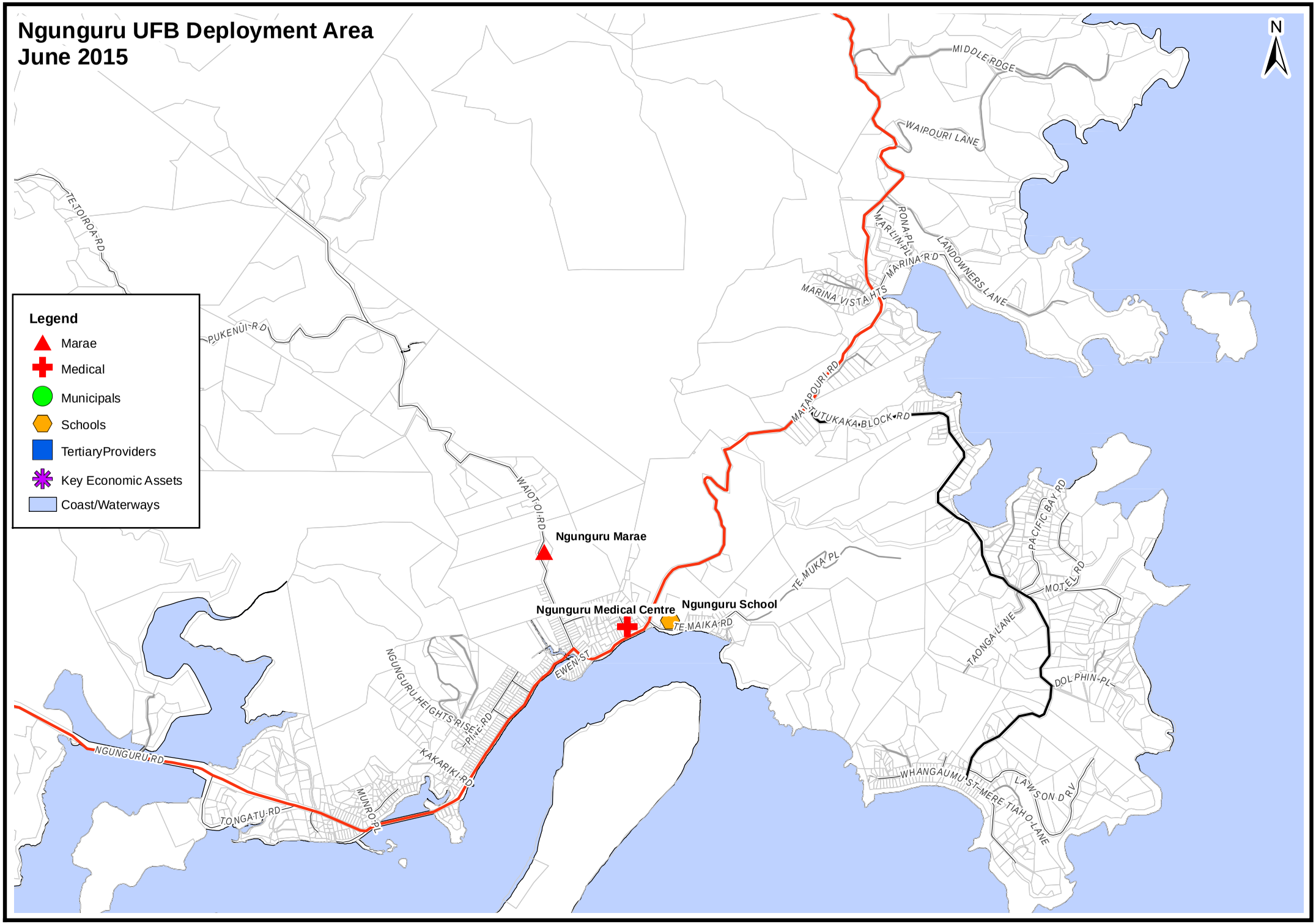
N

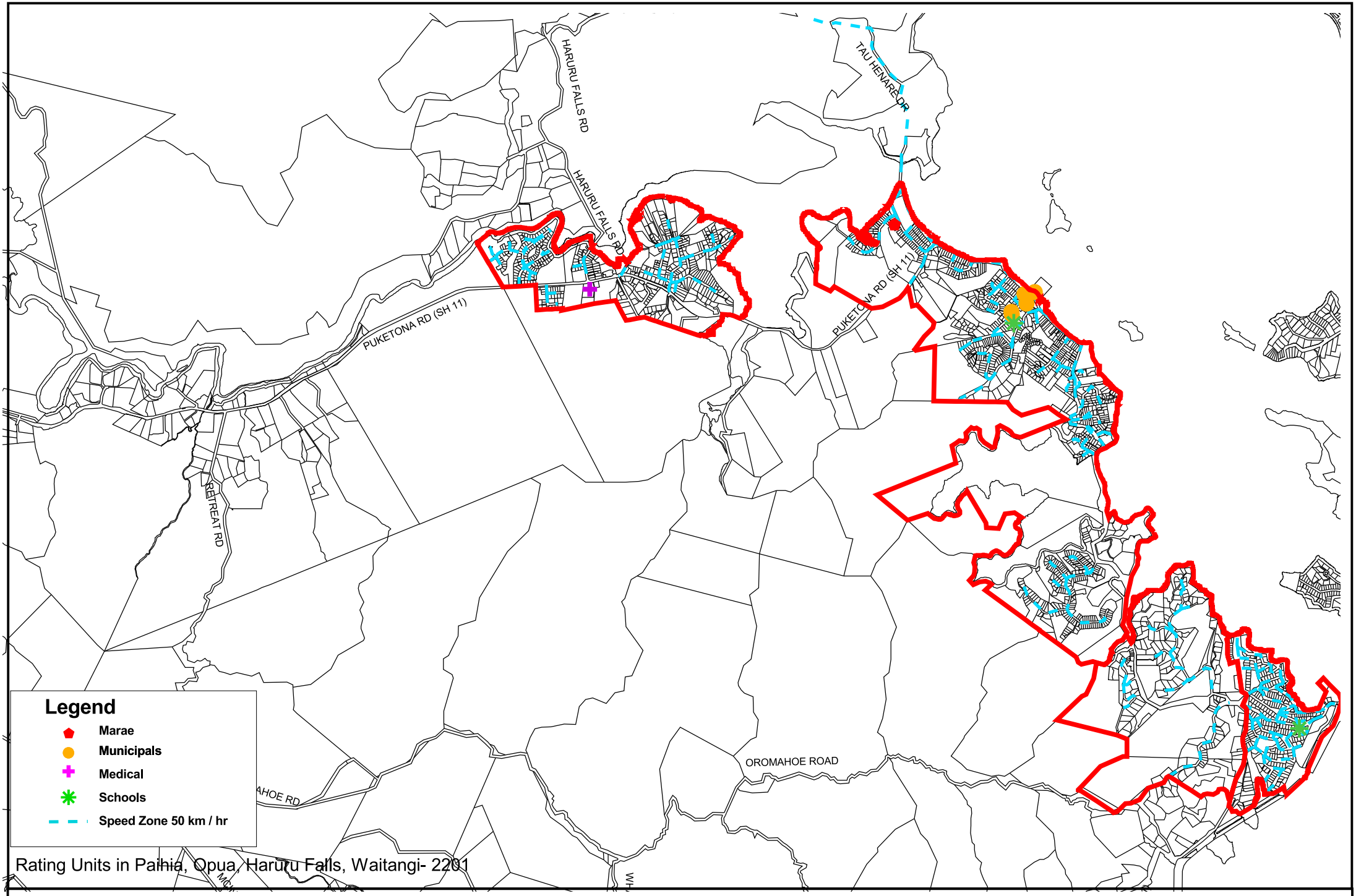
BROADBAND PROJECT

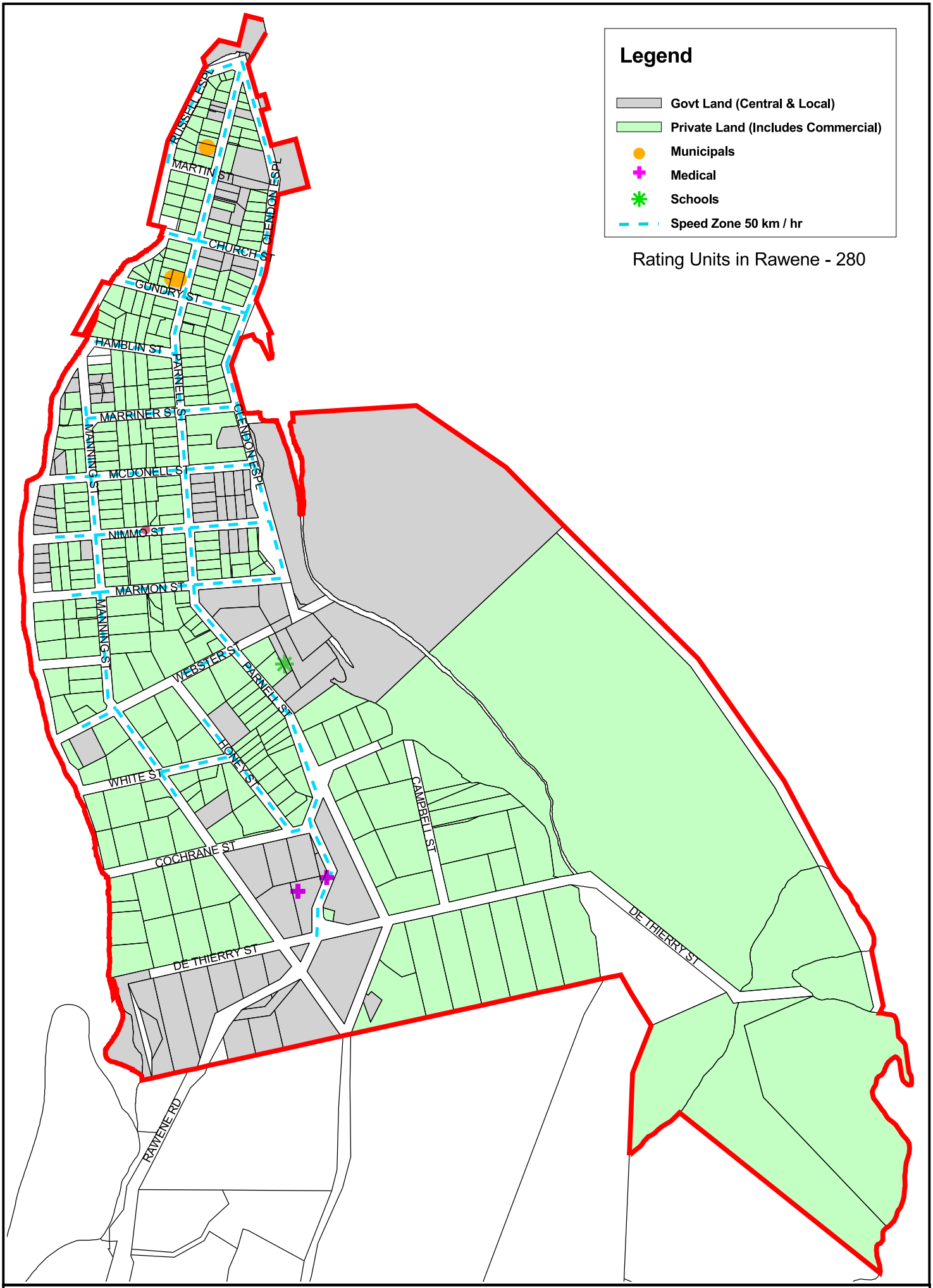
TAIPA, CABLE BAY, COOPERS BEACH MANGONUI TOWNSHIP

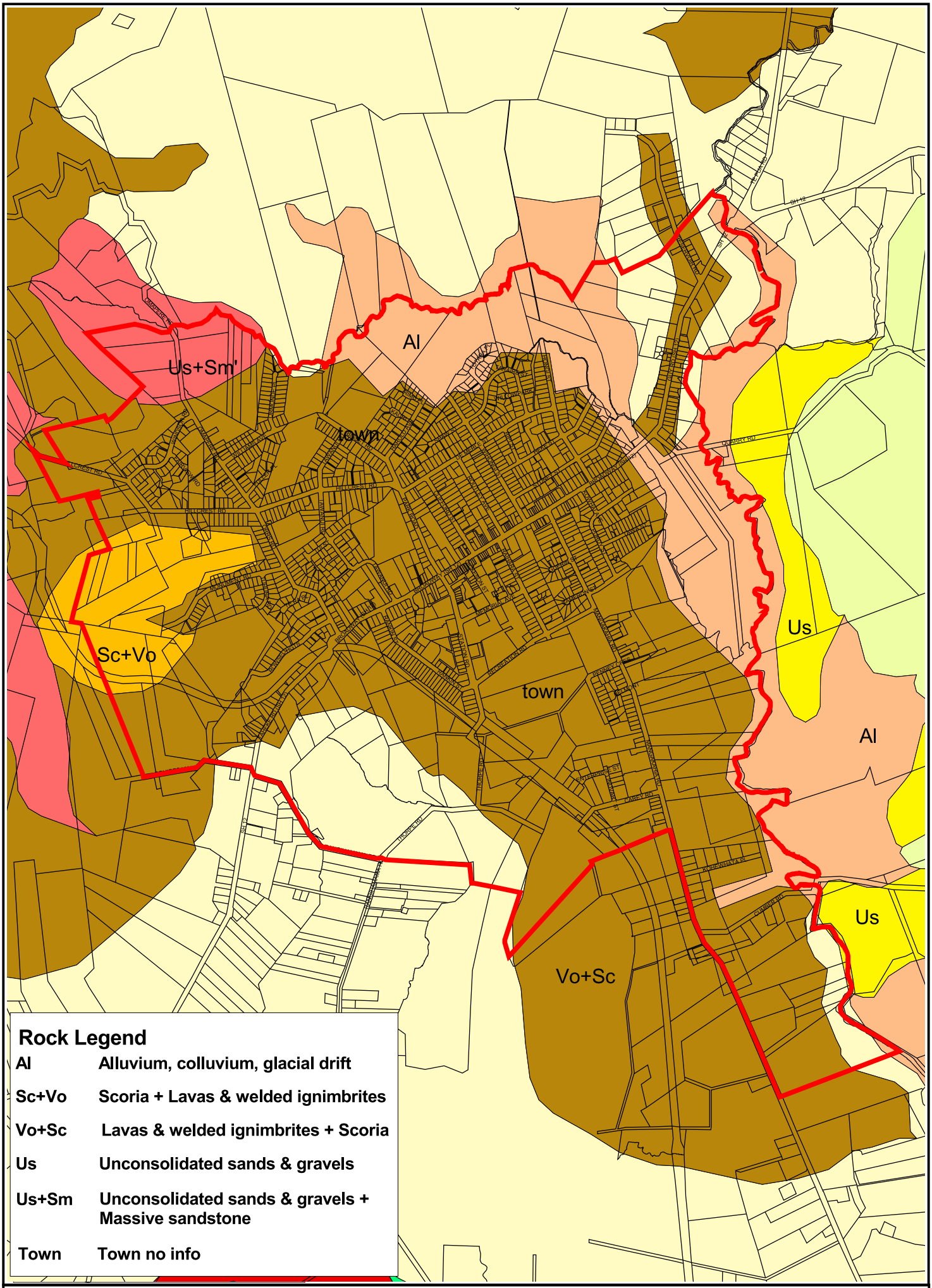

Marsden UFB Deployment Area
June 2015
N
Legend
Marae
Medical
Municipals
Schools
TertiaryProviders
Key Economic Assets
Coast/Waterways
Patuharakeke Te Iwi Trust
One Tree Point School
Refining NZ
Whangarei Heads School
Bream Bay Medical Centre
New Zealand Police Ruakaka Community Constable
Bream Bay College
Whangarei District Council - Ruakaka Service Center
NIWA Bream Bay Aquaculture Park
KARORO RD
BARBADOS WAY
PLOVER ST
KOWI LAKES DR
WAI PL
PYLE RD WEST
PYLE RD EAST
PIRIHI RD
TED ERCEG RD
TAKAHIWAI RD
MCEWAN RD
MARINERS HAVEN
ALBANY RD
RAUIRI DRV
MARSDEN BAY DRV
PAPICH RD
PORT MARSDEN HWY
RAMA RD
MAIR RD
ALLIS BLOY PL
ABRAHAM ST
CASEY RD
ROOSEVELT RD
THEODORE DRV
POKAPU RD
WAIWARAWARA DR
ONE TREE POINT RD
MARSDEN POINT RD
MCCATHIE RD
FLYGER RD
DARCH POINT RD
RE O TAHI RD
WHANGAREI HEADS RD


Maungaturoto: UFB Deployment Area
June 2015
Legend:
Marae
Medical
Municipals
Tertiary Providers
N
WILLOW LN
MONTAINE PL
DOCTORS HILL
New Zealand Fire Service Maungaturoto
HURNDALL ST E (SH 12)
MOUNTAIN RD
VIEW ST
MATAI DR
BICKERTON AFFE
New Zealand Police Maungaturoto
GORGE RD
Coast to Coast Medical Centre, Maungaturoto
HURNDALL ST W (SH 12)
SH 12
ASH GV
WHAKA ST


Ngunguru UFB Deployment Area
June 2015
N
Legend
Marae
Medical
Municipals
Schools
TertiaryProviders
Key Economic Assets
Coast/Waterways
MIDDLE RDGE
WAIPOURI LANE
TE TOIROA RD
PUKENUI RD
RONA PL
MARLIN PL
MARINA RD
LANDOWNERS LANE
MARINA VISTA HTS
MATAPOURI RD
TUTUKAKA BLOCK RD
WAIOTOI RD
Ngunguru Marae
Ngunguru Medical Centre
Ngunguru School
TE MAIKA RD
TE MUKA PL
EWEN ST
NGUNGURU HEIGHTS RISE
PINE PL
KAKARIKI RD
NGUNGURU RD
TONGATU RD
MUNRO PL
PACIFIC BAY RD
MOTEL RD
TAONGA LANE
DOLPHIN PL
WHANGAUMU ST
MERE TIAHO LANE
LAWSON DRV


HARURU FALLS RD
HARURU FALLS RD
TAU HENARE DR
PUKETONA RD (SH 11)
PUKETONA RD (SH 11)
RETREAT RD
OROMAHOE ROAD
Legend
Marae
Municipals
Medical
Schools
Speed Zone 50 km / hr
Rating Units in Paihia, Opua, Haruru Falls, Waitangi- 2201
Scale 1:40,000 @ A4
5 June 2015
N
BROADBAND PROJECT
PAIHIA, OPUA, HARURU FALLS, WAITANGI TOWNSHIP


Legend
Govt Land (Central & Local)
Private Land (Includes Commercial)
Municipals
Medical
Schools
Speed Zone 50 km / hr
Rating Units in Rawene - 280
RUSSELL ESP
MARTIN ST
CLENDON ESPL
CHURCH ST
GUNDRY ST
HAMBLIN ST
PARNELL ST
MARRINER ST
MANNING ST
MCDONELL ST
NIMMO ST
MARMON ST
WEBSTER ST
HONEY ST
WHITE ST
COCHRANE ST
CAMPBELL ST
DE THIERRY ST
RAWENE RD
Scale 1:10,000 @ A4
5 June 2015
N
BROADBAND PROJECT
RAWENE TOWNSHIP



Rock Legend

Al	Alluvium, colluvium, glacial drift
Sc+Vo	Scoria + Lavas & welded ignimbrites
Vo+Sc	Lavas & welded ignimbrites + Scoria
Us	Unconsolidated sands & gravels
Us+Sm	Unconsolidated sands & gravels + Massive sandstone
Town	Town no info

Scale 1:20,000 @ A4

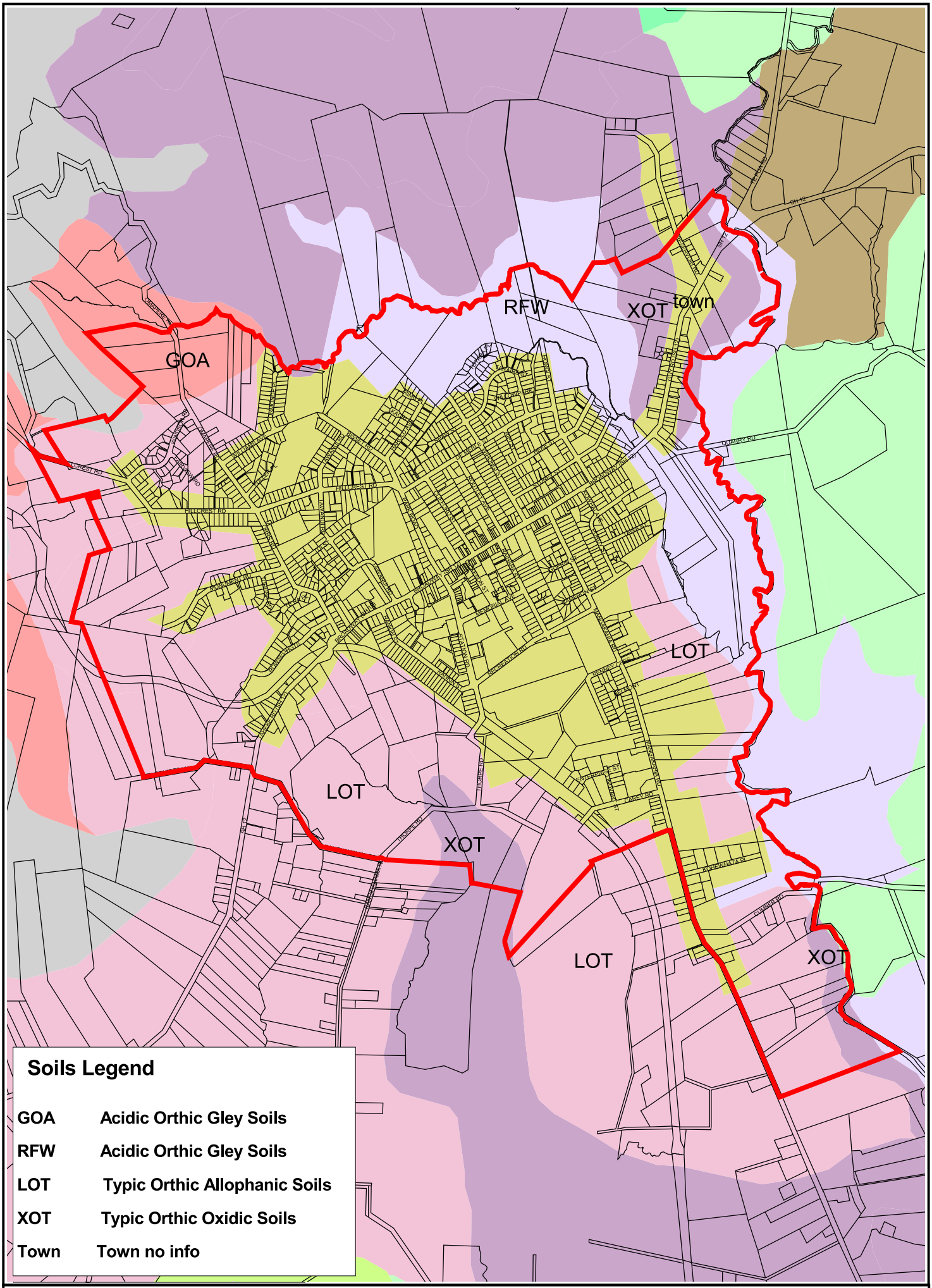
23 June 2015

ROCK CLASSIFICATION

N

BROADBAND PROJECT

KAIKOHE TOWNSHIP



Scale 1:20,000 @ A4

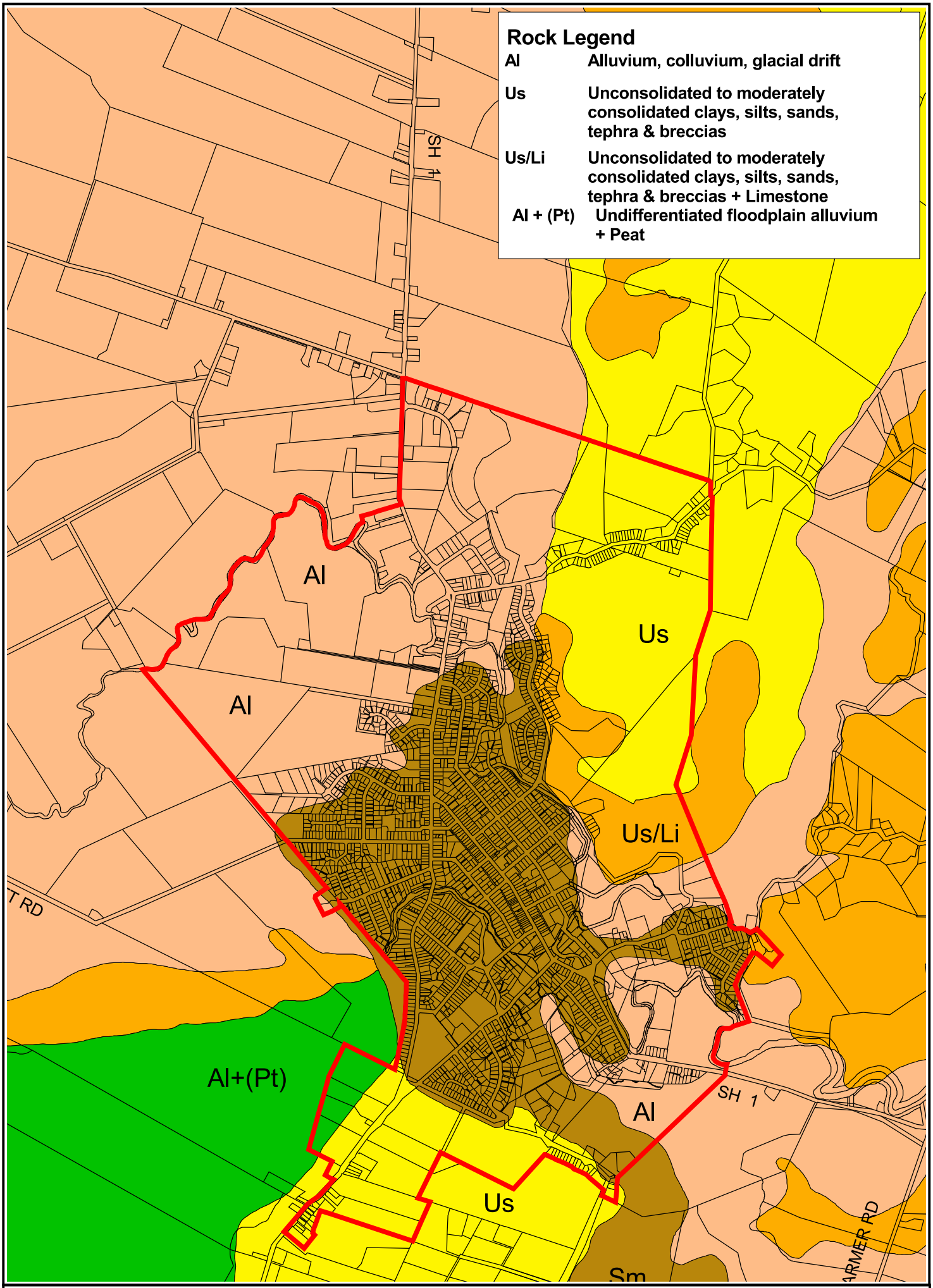
23 June 2015

SOIL CLASSIFICATION

N

BROADBAND PROJECT

KAIKOHE TOWNSHIP



Scale 1:25,000 @ A4

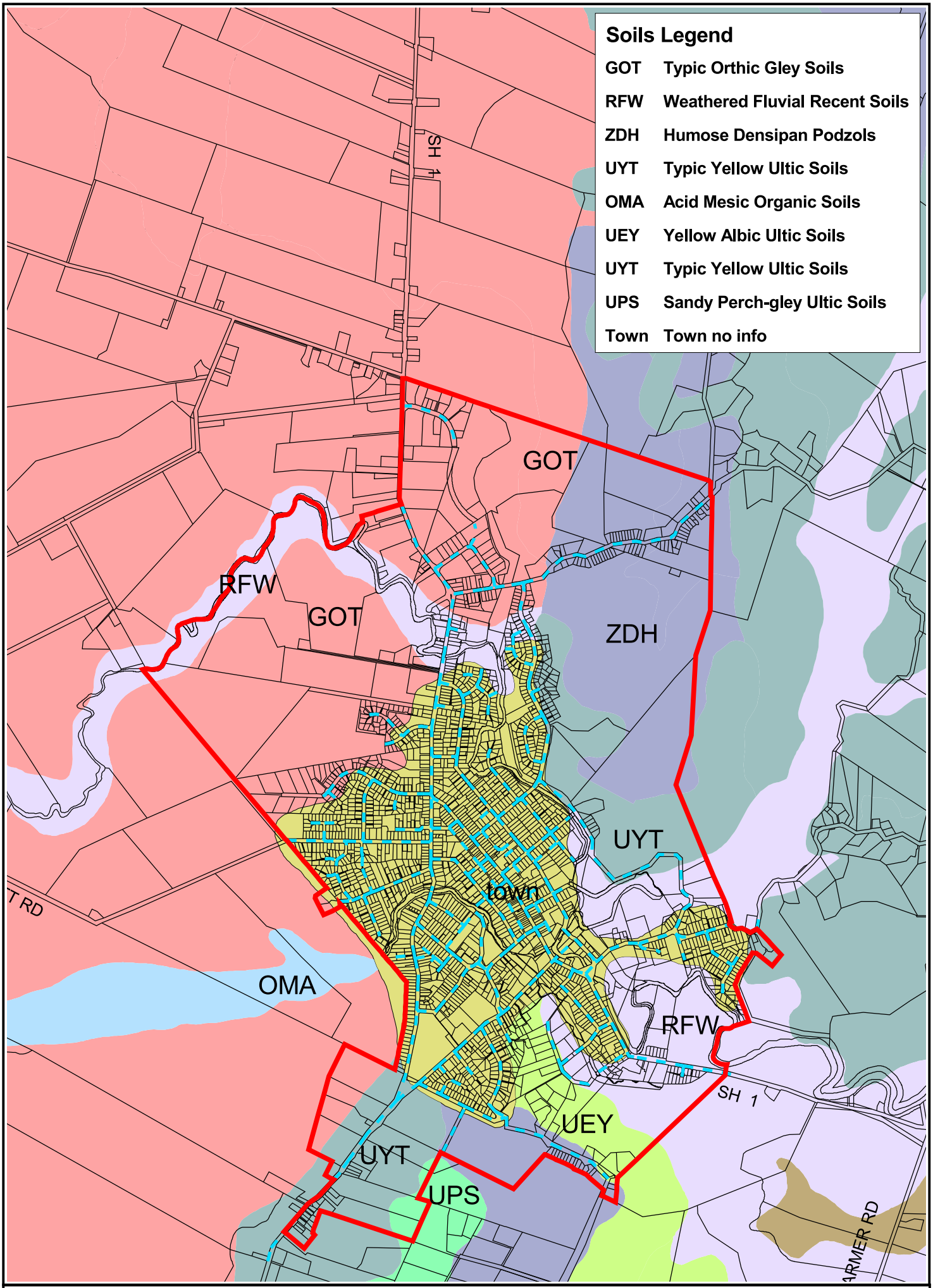
23 June 2015

ROCK CLASSIFICATION

N

BROADBAND PROJECT

KAITAIA TOWNSHIP



Scale 1:25,000 @ A4

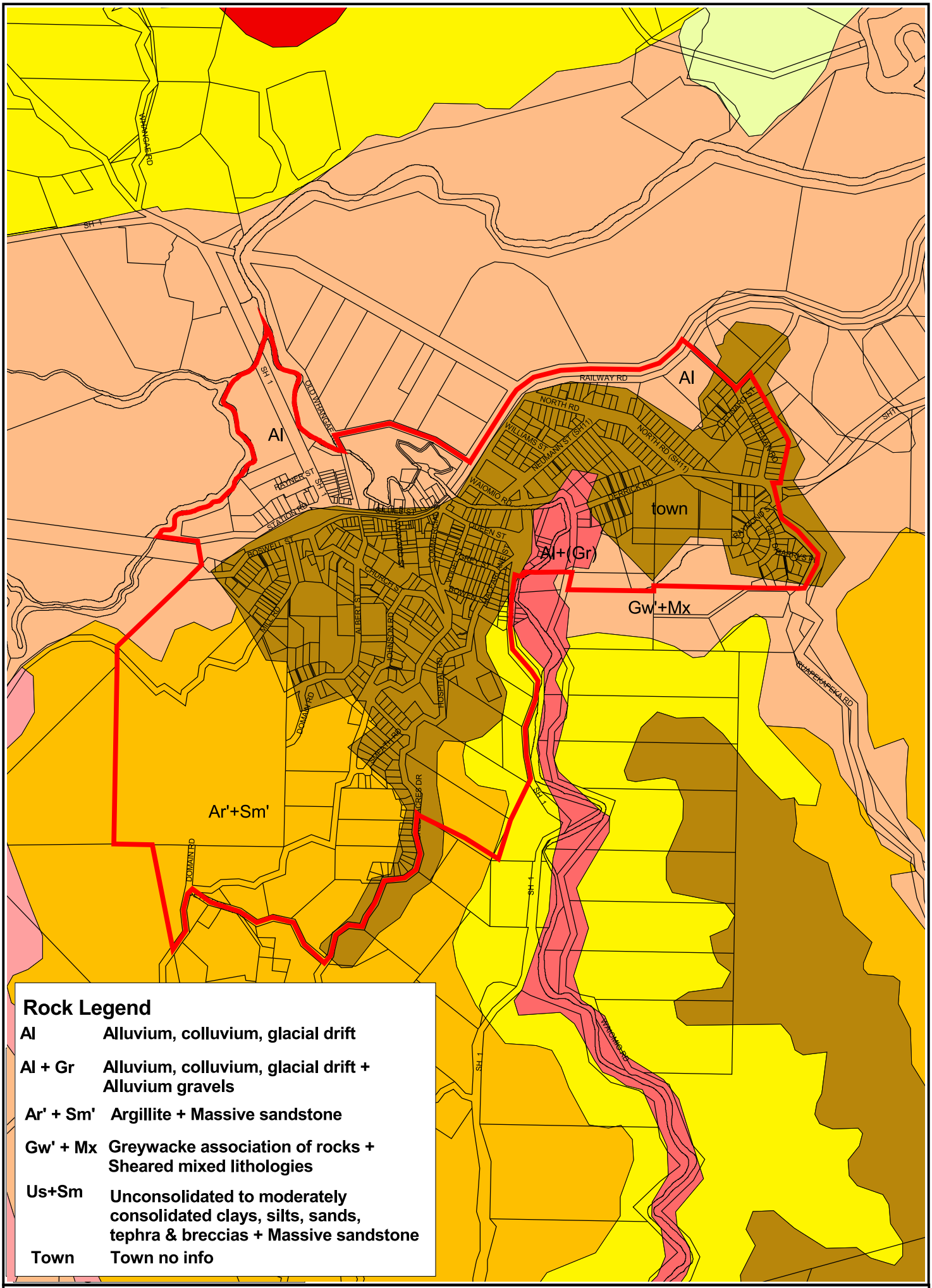
23 June 2015

SOIL CLASSIFICATION

N

BROADBAND PROJECT

KAITAIA TOWNSHIP



Rock Legend

Al	Alluvium, colluvium, glacial drift
Al + Gr	Alluvium, colluvium, glacial drift + Alluvium gravels
Ar' + Sm'	Argillite + Massive sandstone
Gw' + Mx	Greywacke association of rocks + Sheared mixed lithologies
Us+Sm	Unconsolidated to moderately consolidated clays, silts, sands, tephra & breccias + Massive sandstone
Town	Town no info

Scale 1:15,000 @ A4

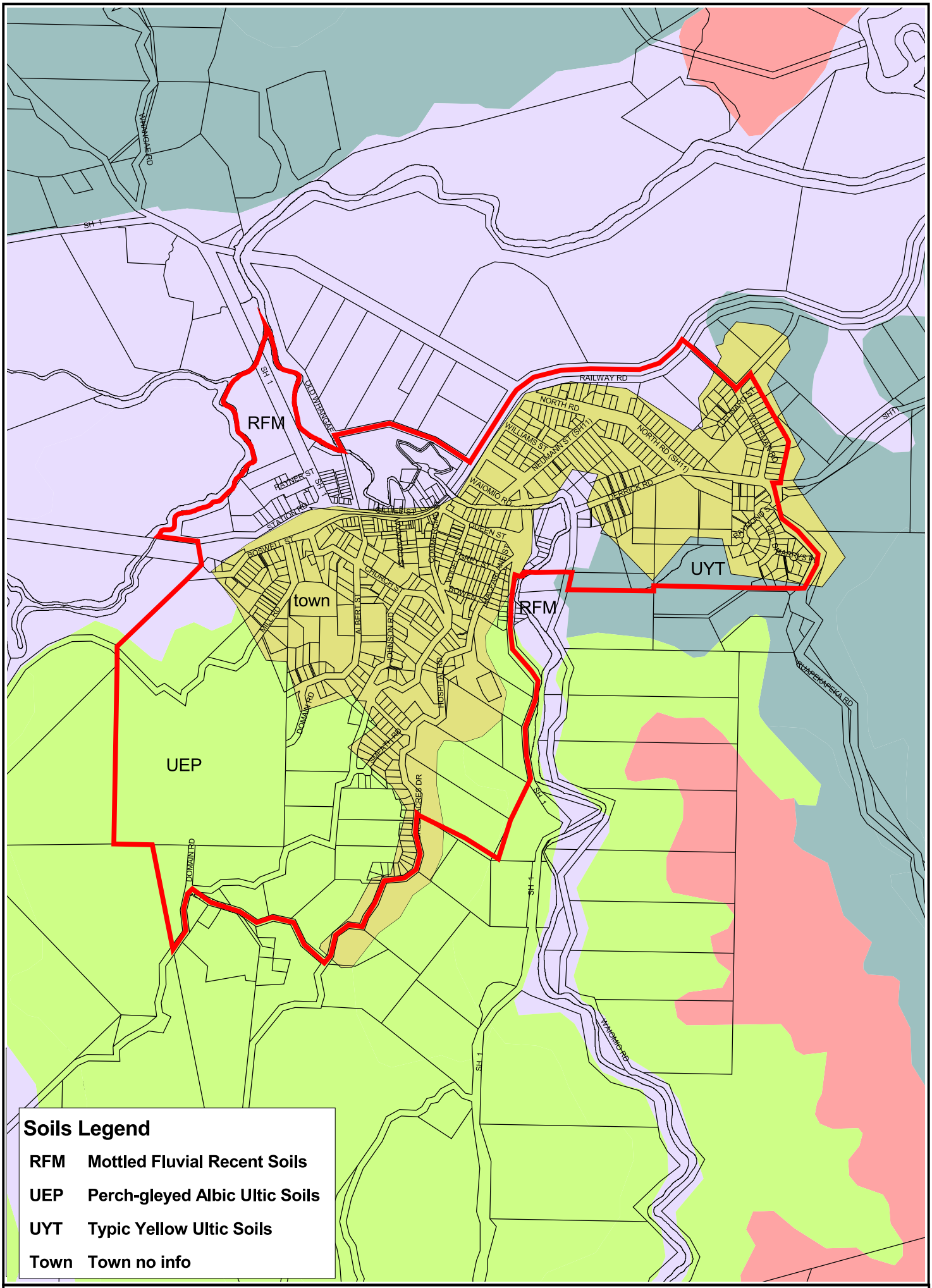
23 June 2015

ROCK CLASSIFICATION

N

BROADBAND PROJECT

KAWAKAWA TOWNSHIP



Scale 1:15,000 @ A4

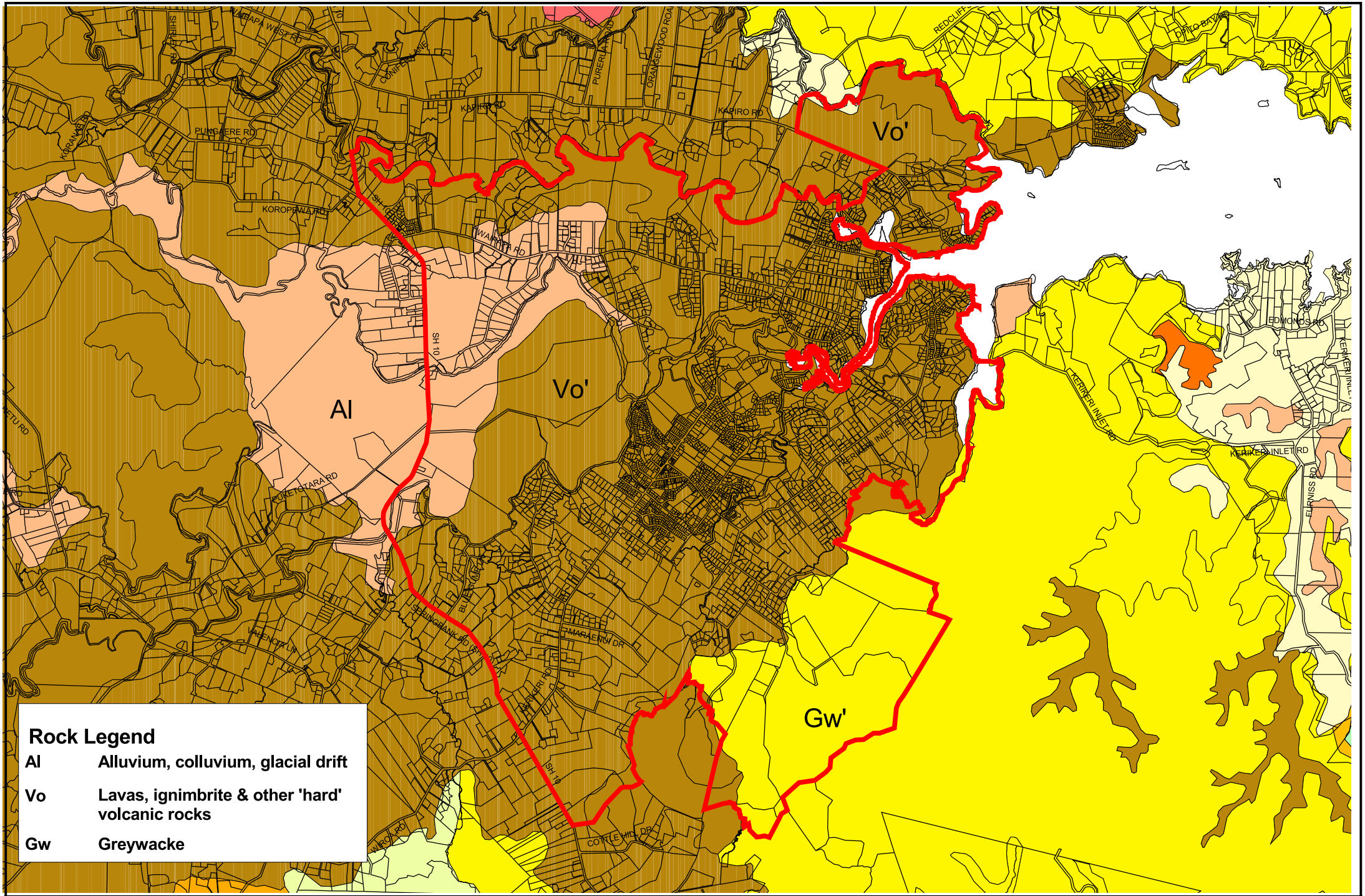
23 June 2015

SOIL CLASSIFICATION

N

BROADBAND PROJECT

KAWAKAWA TOWNSHIP



Scale 1:50,000 @ A4

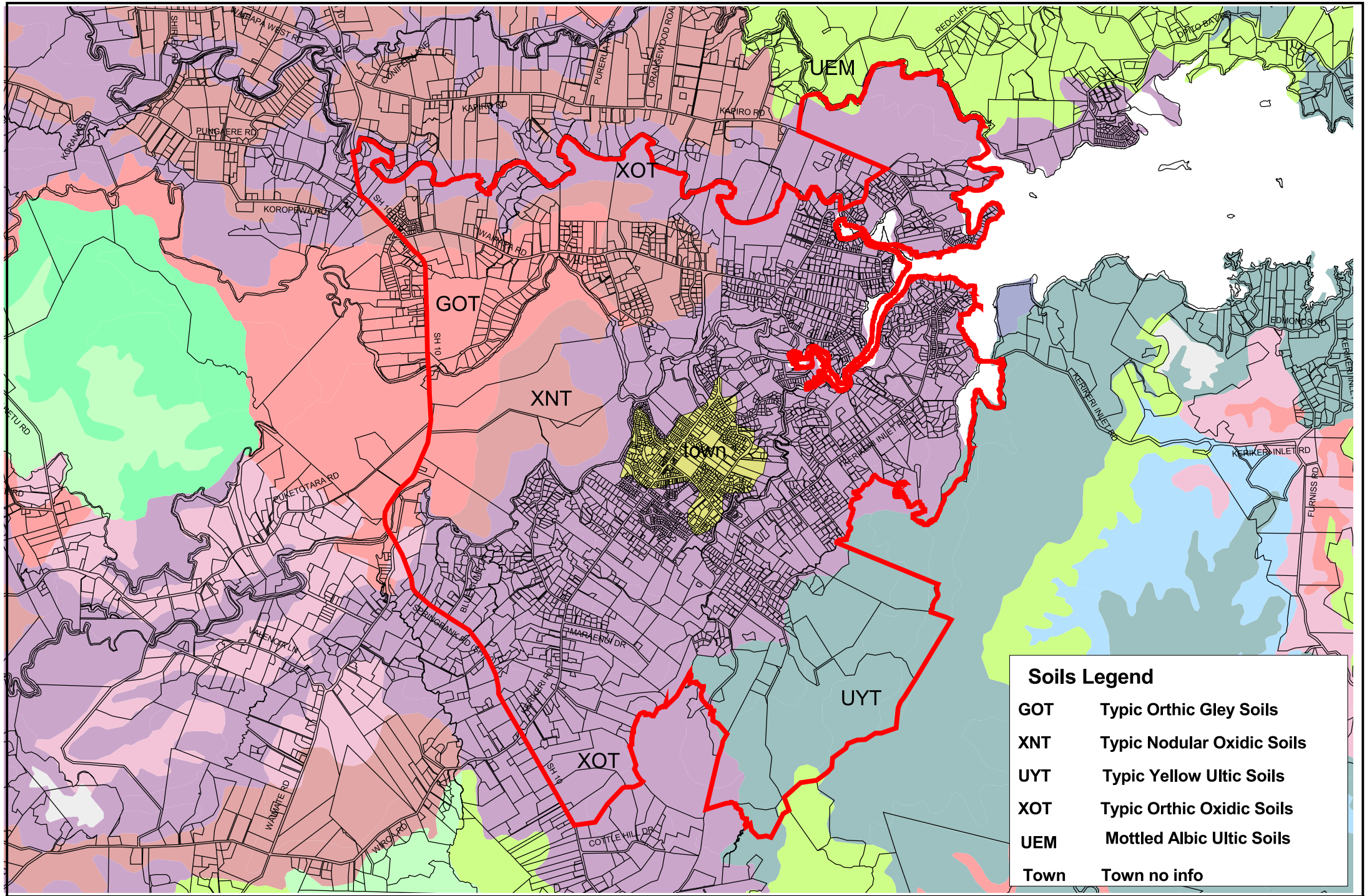
23 June 2015

ROCK CLASSIFICATION

N

BROADBAND PROJECT

KERIKERI / WAIPAPA TOWNSHIP



Scale 1:50,000 @ A4

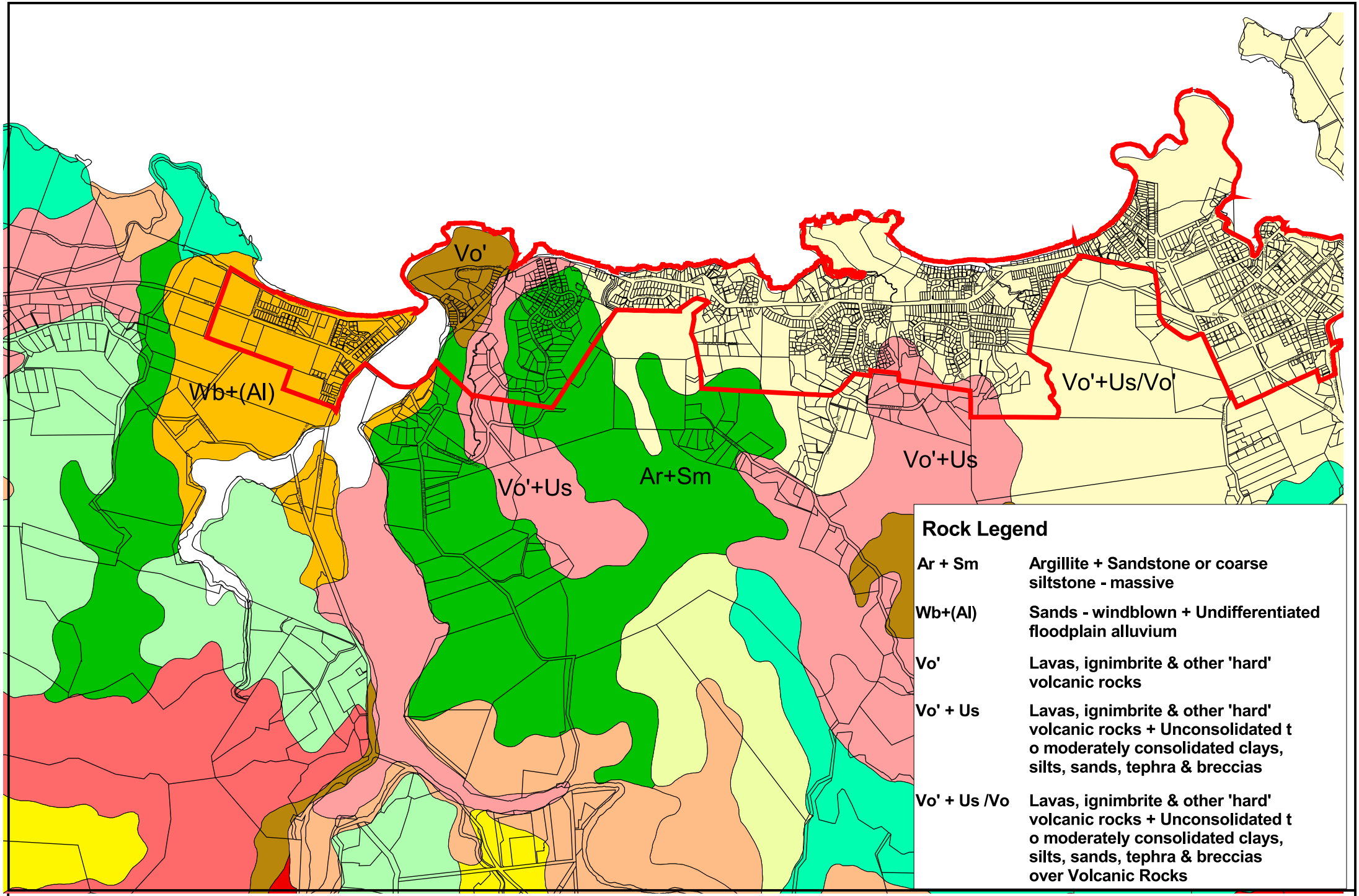
23 June 2015

SOIL CLASSIFICATION

N

BROADBAND PROJECT

KERIKERI / WAIPAPA TOWNSHIP



Rock Legend

Ar + Sm	Argillite + Sandstone or coarse siltstone - massive
Wb+(Al)	Sands - windblown + Undifferentiated floodplain alluvium
Vo'	Lavas, ignimbrite & other 'hard' volcanic rocks
Vo' + Us	Lavas, ignimbrite & other 'hard' volcanic rocks + Unconsolidated t o moderately consolidated clays, silts, sands, tephra & breccias
Vo' + Us /Vo	Lavas, ignimbrite & other 'hard' volcanic rocks + Unconsolidated t o moderately consolidated clays, silts, sands, tephra & breccias over Volcanic Rocks

Scale 1:30,000 @ A4

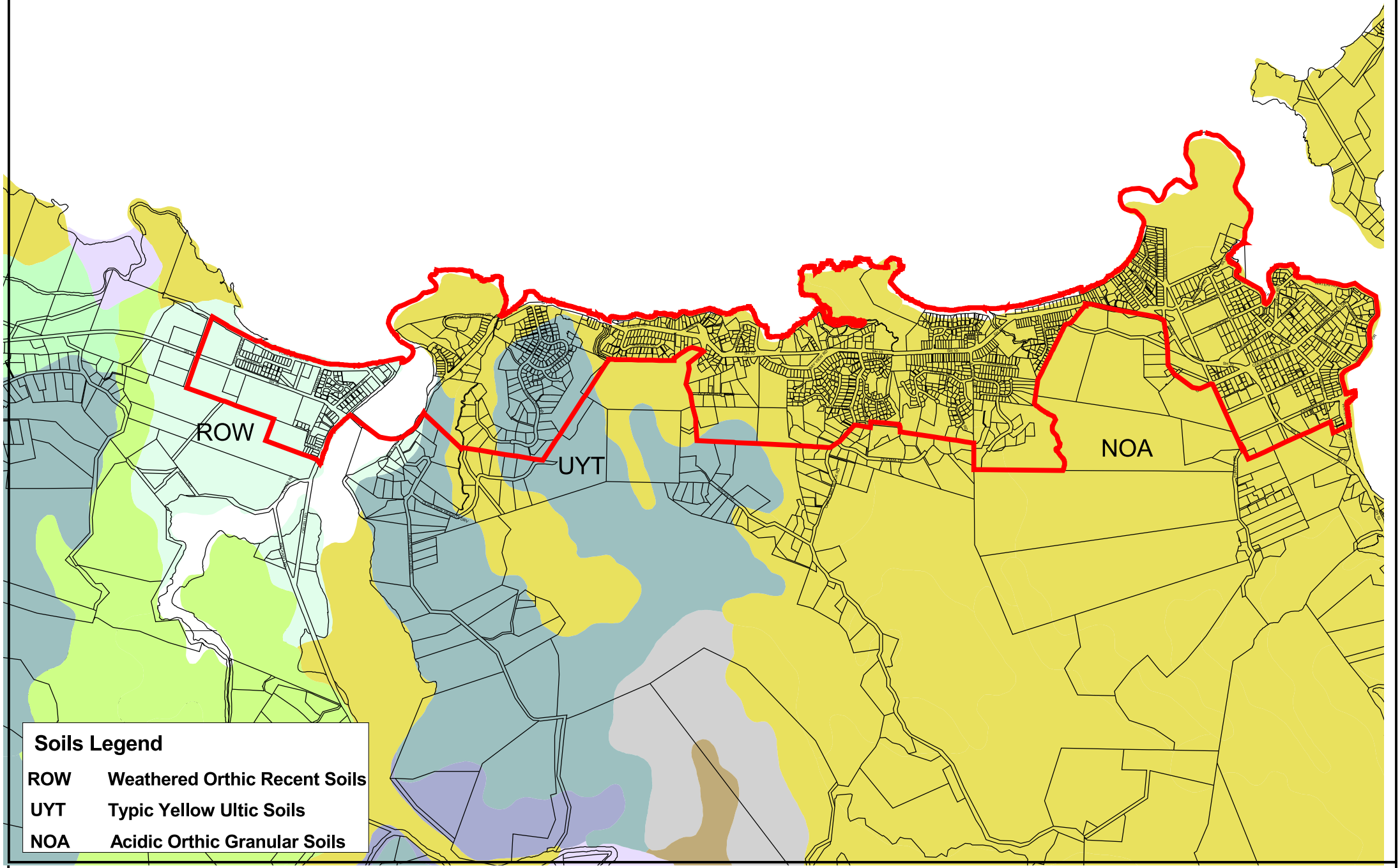
23 June 2015

ROCK CLASSIFICATION

N

BROADBAND PROJECT

TAIPA, CABLE BAY, COOPERS BEACH MANGONUI TOWNSHIP



Scale 1:30,000 @ A4

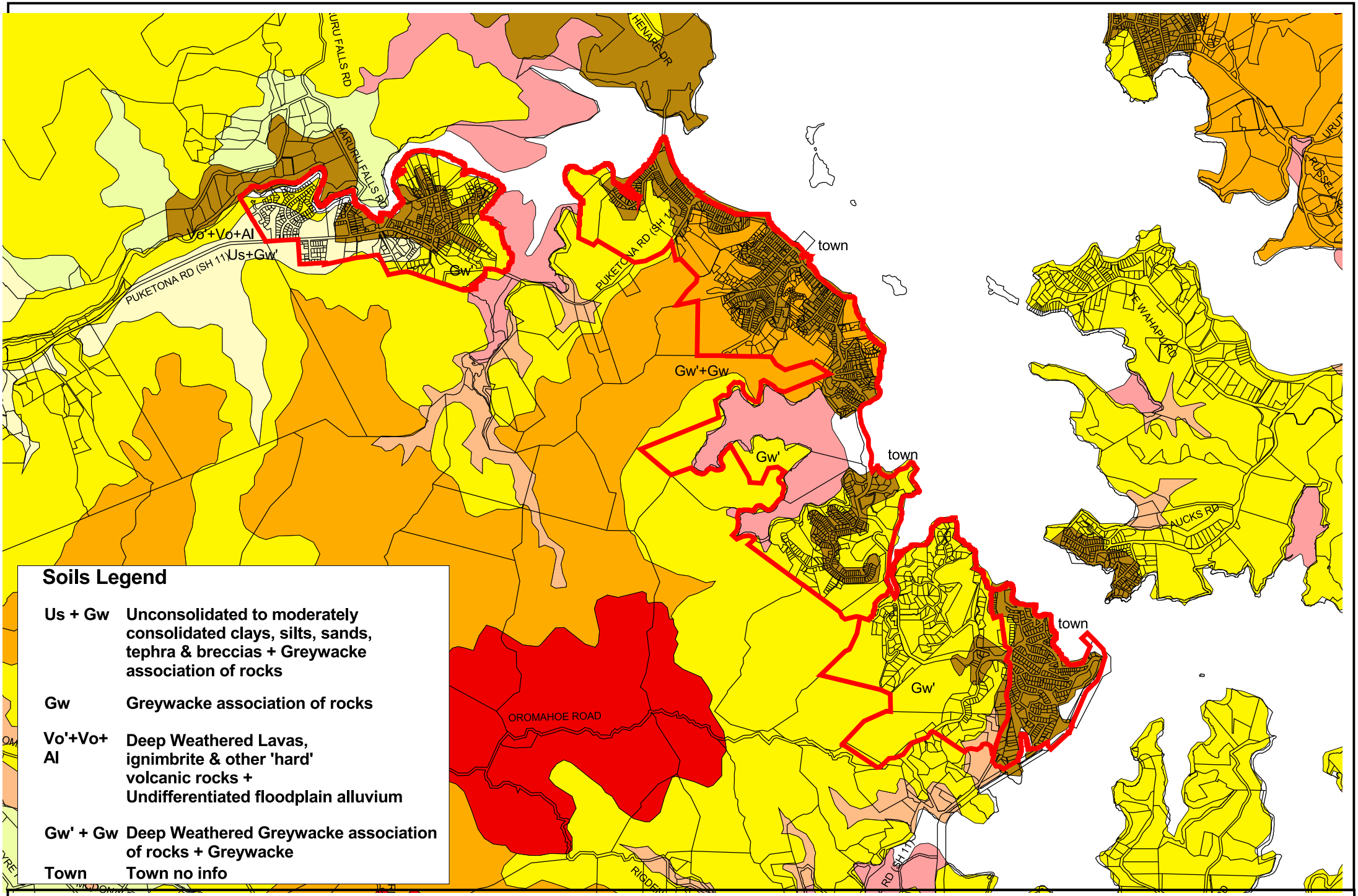
23 June 2015

SOIL CLASSIFICATION

N

BROADBAND PROJECT

TAIPA, CABLE BAY, COOPERS BEACH MANGONUI TOWNSHIP



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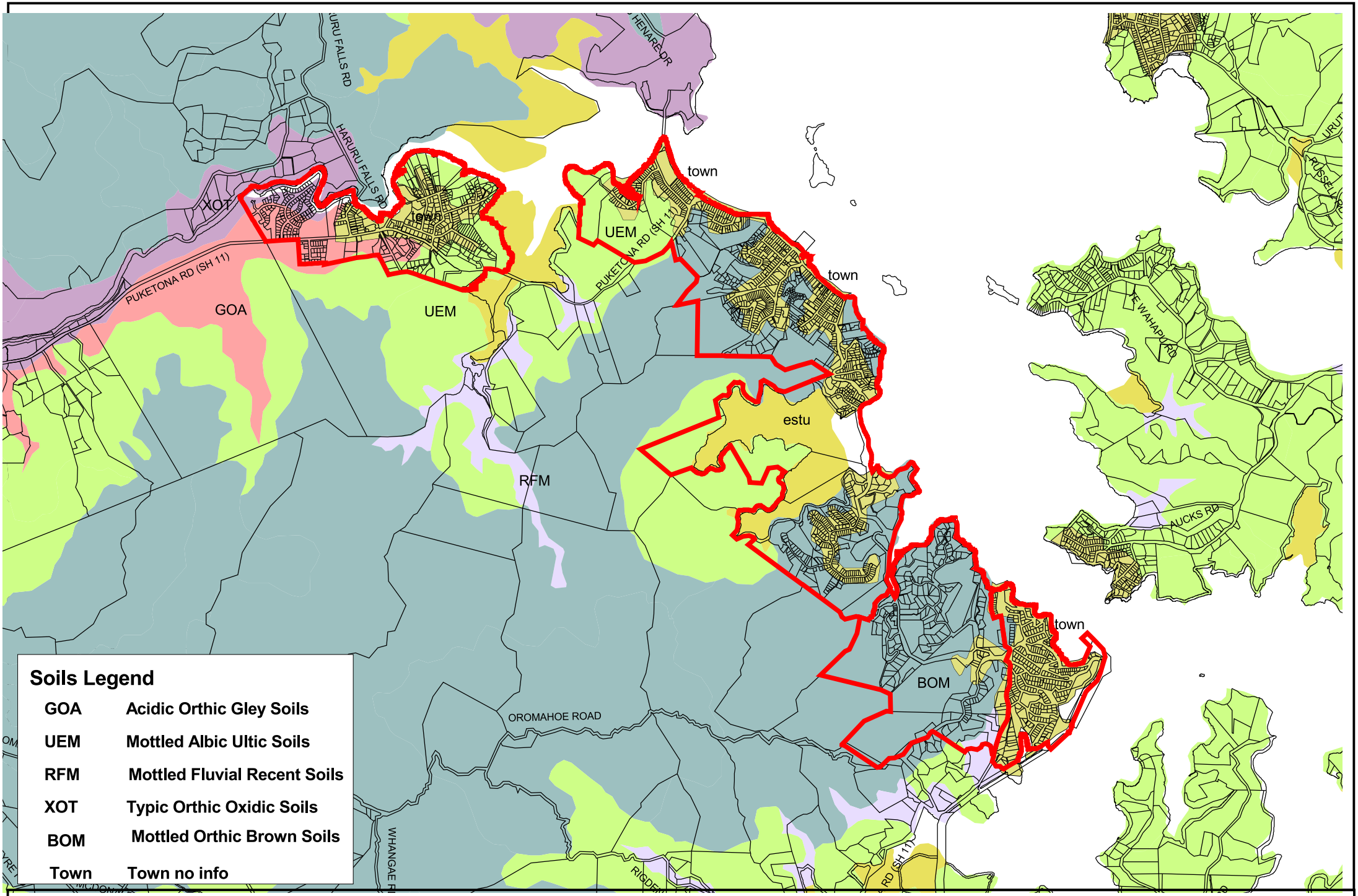
23 June 2015

ROCK CLASSIFICATION

BROADBAND PROJECT

PAIHIA, OPUA, HARURU FALLS, WAITANGI TOWNSHIP



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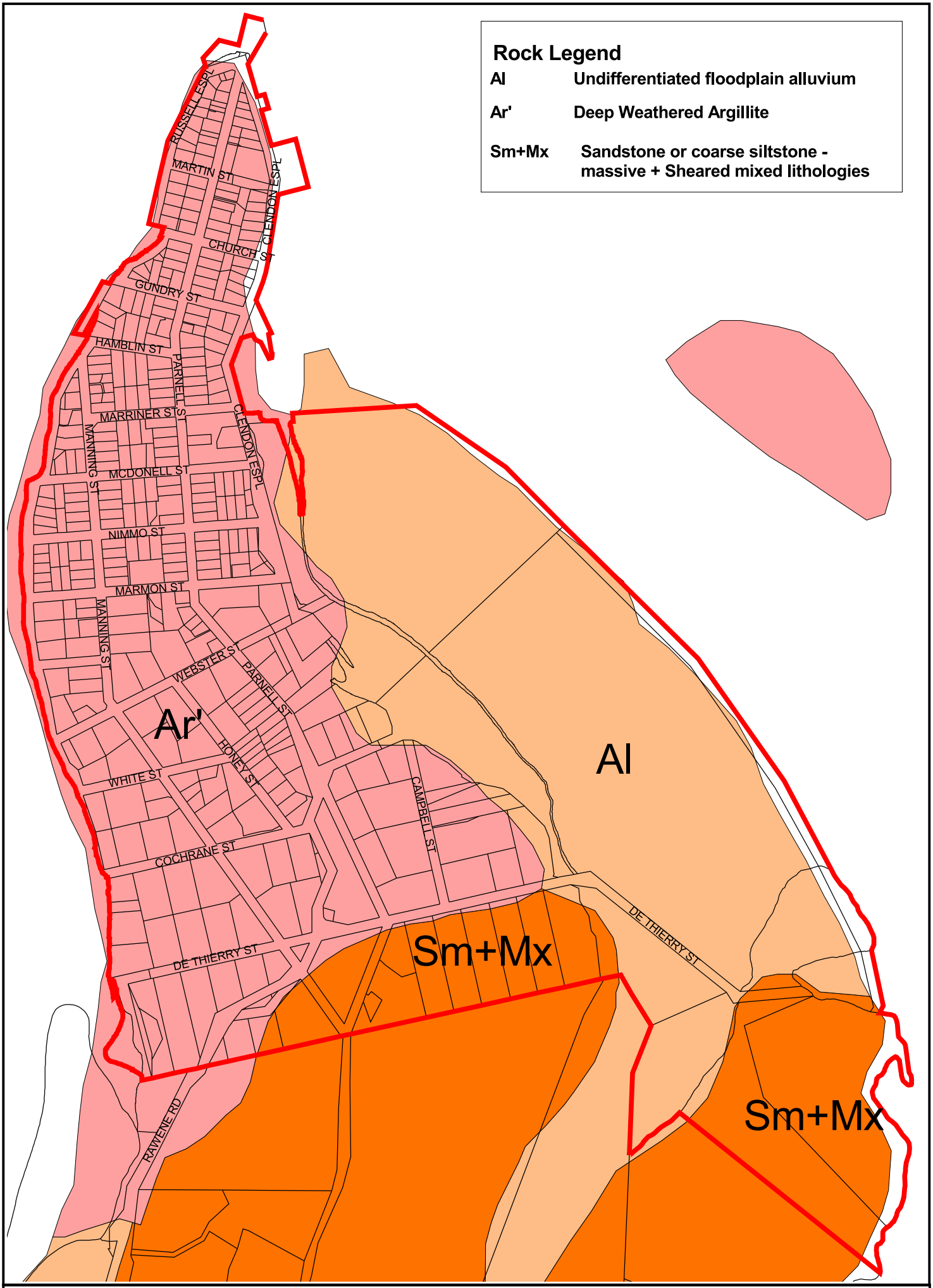
23 June 2015

SOIL CLASSIFICATION

N

BROADBAND PROJECT

PAIHIA, OPUA, HARURU FALLS, WAITANGI TOWNSHIP



Scale 1:10,000 @ A4

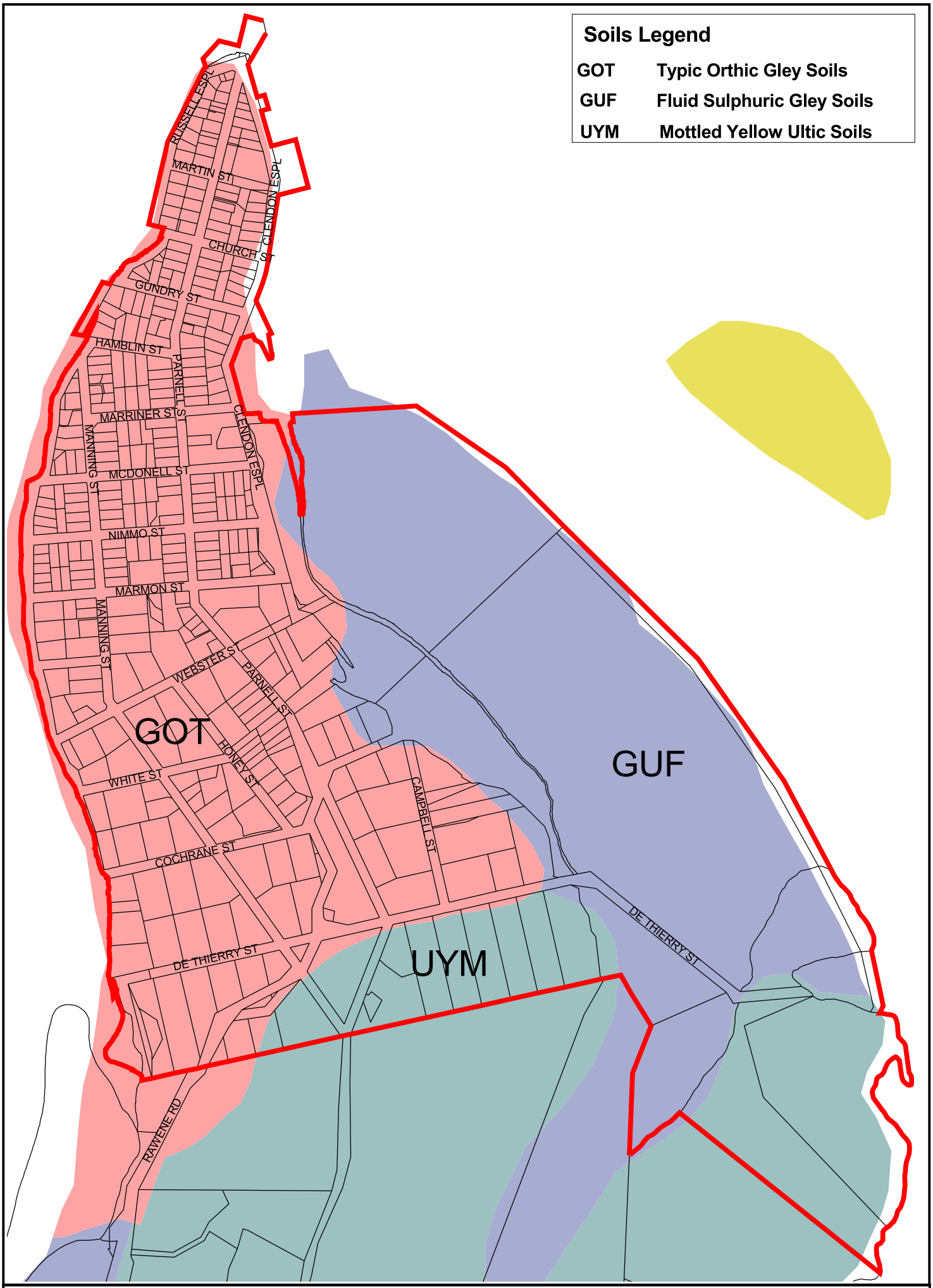
23 June 2015

SOIL CLASSIFICATION

N

BROADBAND PROJECT

RAWENE TOWNSHIP



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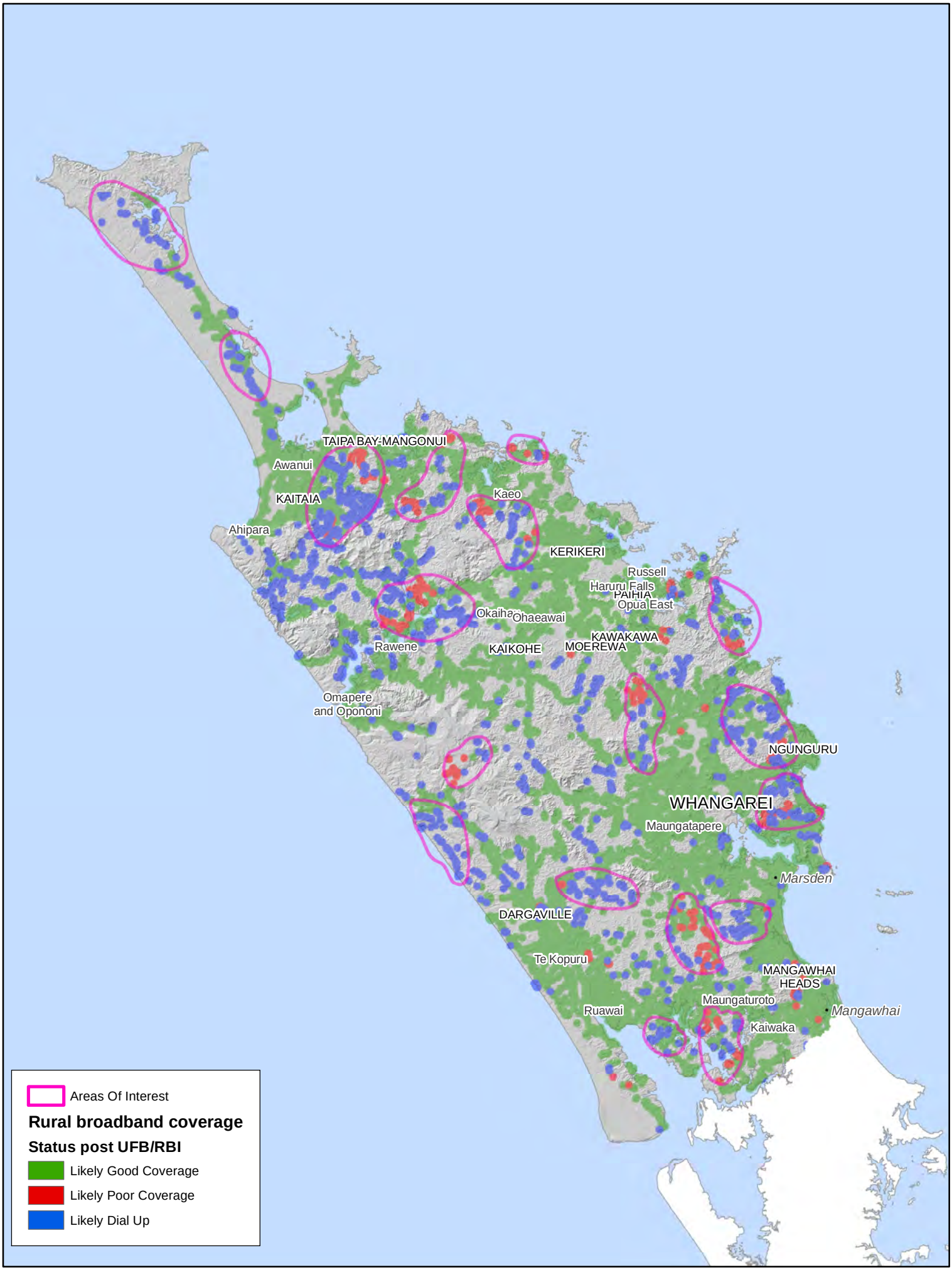
23 June 2015

SOIL CLASSIFICATION

N

BROADBAND PROJECT

RAWENE TOWNSHIP



NORTHLAND REGIONAL COUNCIL

Rural Broadband coverage - areas of interest

(Source: Local Government, Statistics NZ, NZRS)

Name: 2015_Combinations.mxd
User: janellep
Date Saved: 11/06/2015 1:06:16 p.m.

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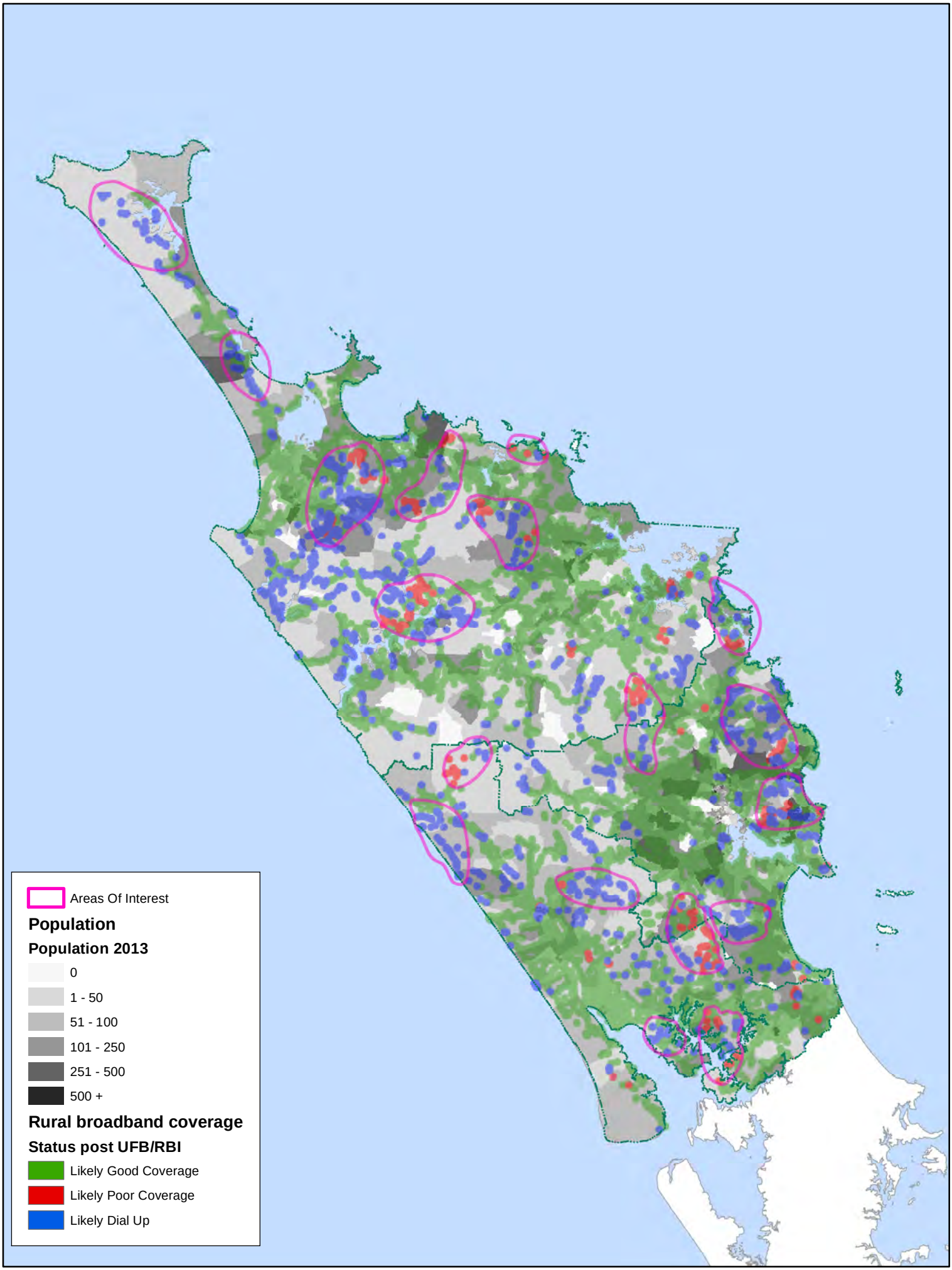

NORTHLAND REGIONAL COUNCIL

Population + Rural Broadband Coverage

(Source: Local Government, Statistics NZ, NZRS)

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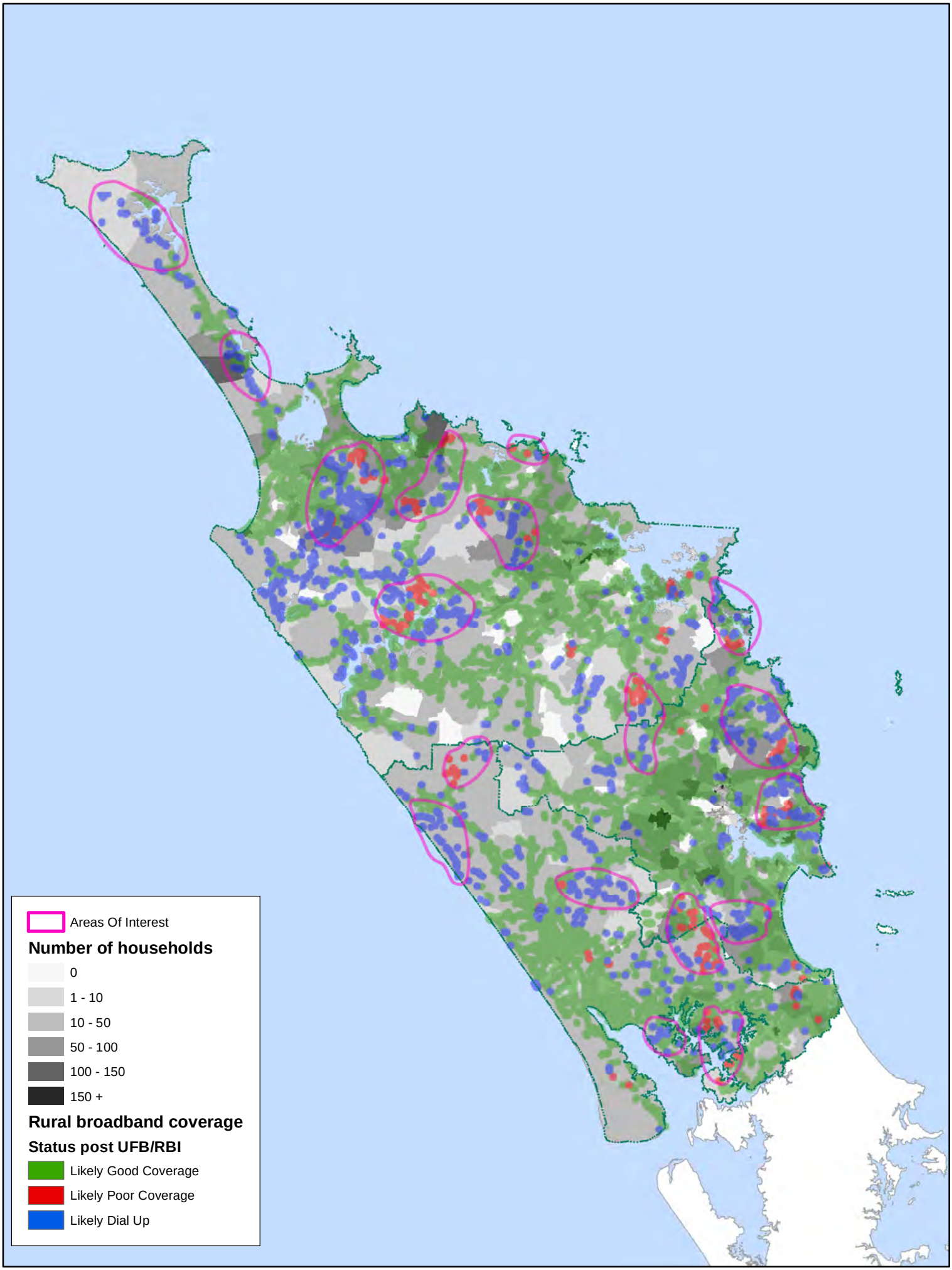

NORTHLAND REGIONAL COUNCIL

Number of Households + Rural Broadband Coverage

(Source: Local Government, Statistics NZ, NZRS)

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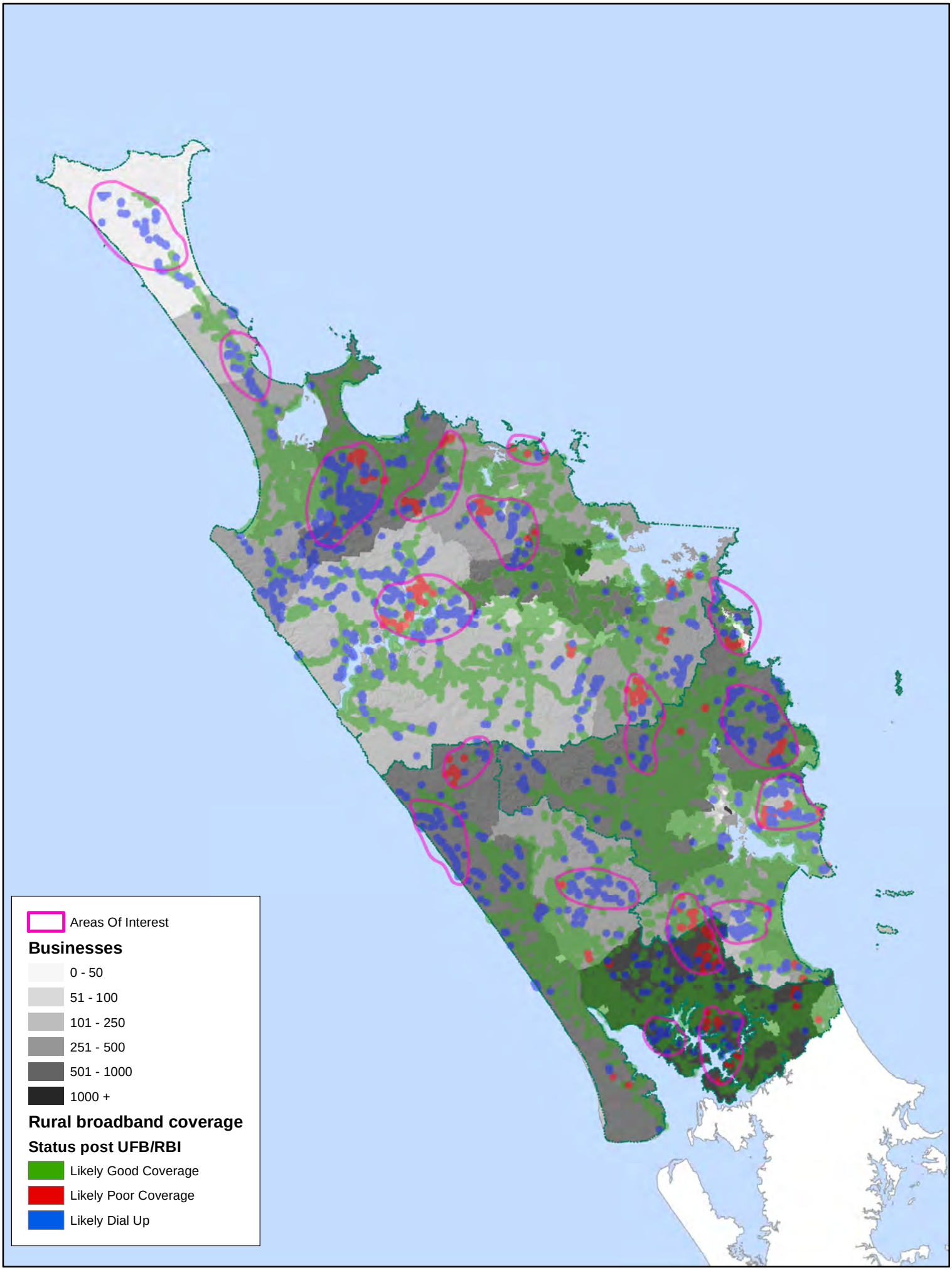

NORTHLAND REGIONAL COUNCIL

Number of Businesses + Rural Broadband Coverage

(Source: Local Government, Statistics NZ, NZRS)

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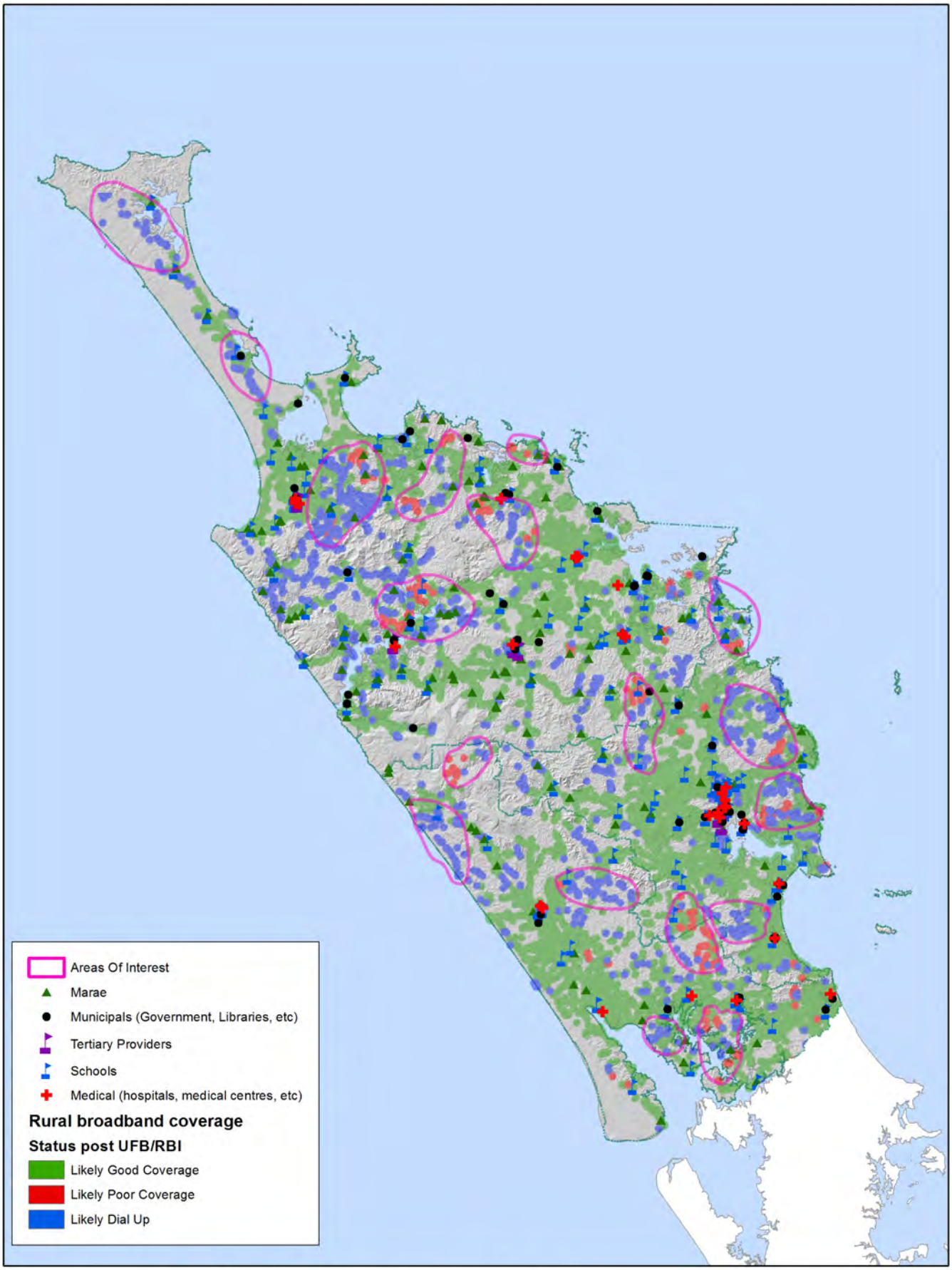

NORTHLAND REGIONAL COUNCIL

MMUSH + Rural Broadband Coverage

(Source: Local Government, Statistics NZ, NZRS)

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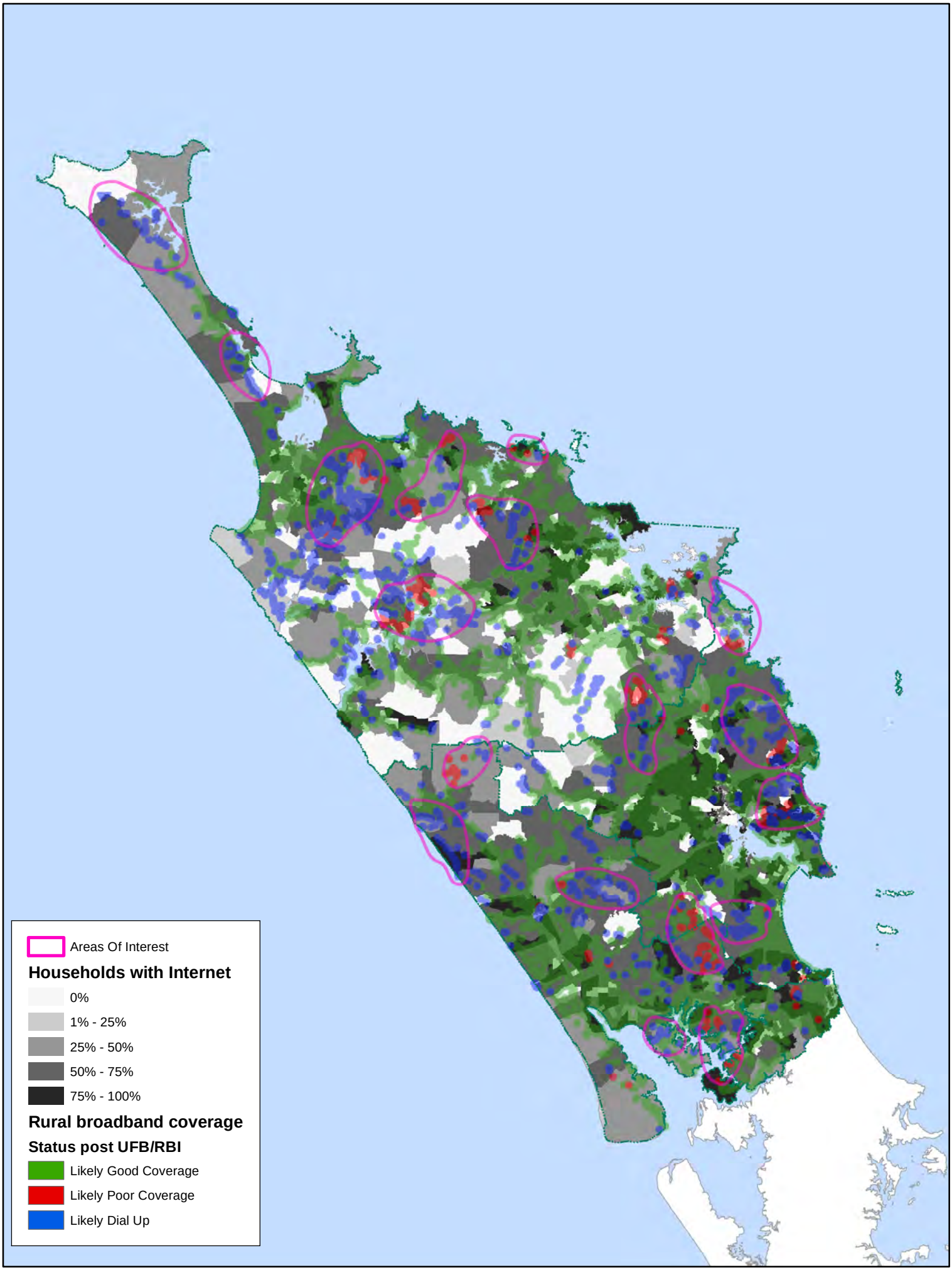

NORTHLAND REGIONAL COUNCIL

Households with Internet + Rural Broadband Coverage

(Source: Local Government, Statistics NZ, NZRS)

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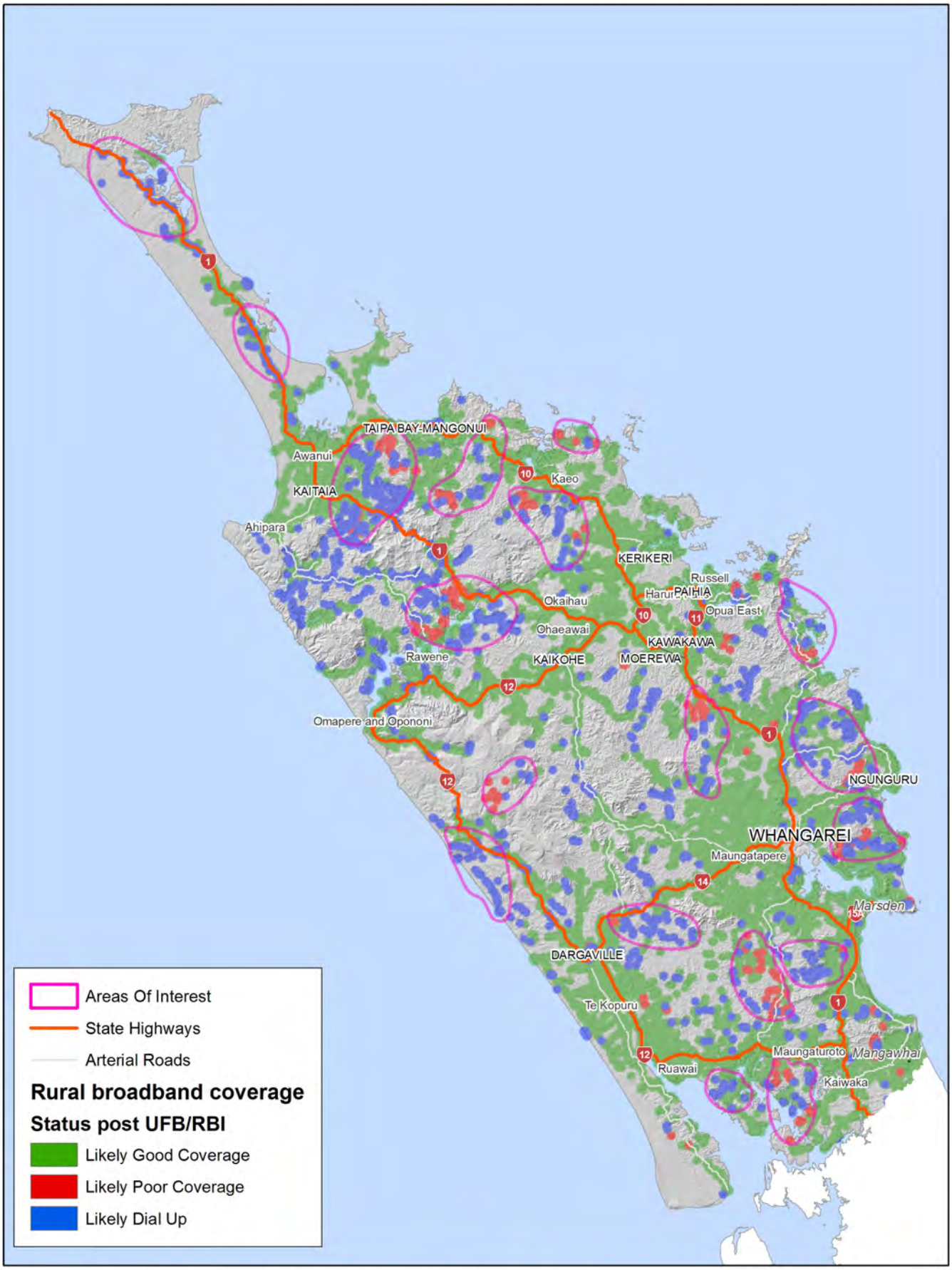

NORTHLAND REGIONAL COUNCIL

Rural Broadband Coverage

(Source: Local Government, Statistics NZ, NZRS)

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NORTHLAND REGIONAL COUNCIL

Mobile Coverage

(Source: Local Government, Statistics NZ, NZTA, NZRS)

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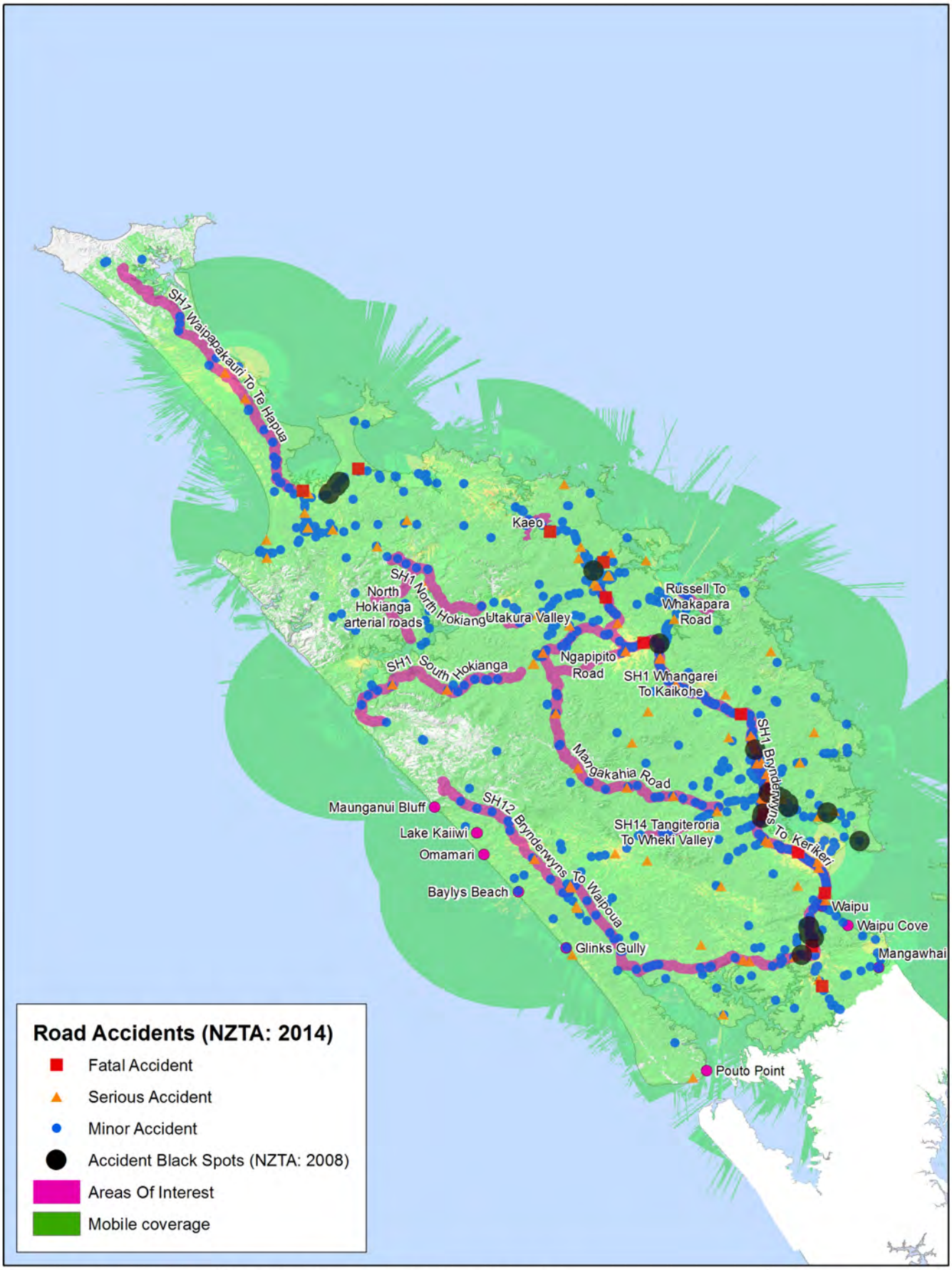

NORTHLAND REGIONAL COUNCIL

Mobile Coverage + Road Accidents

(Source: Local Government, Statistics NZ, NZTA, NZRS)

Name: 2015_Combinations_Mobile.mxd
User: janellep
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NORTHLAND REGIONAL COUNCIL

Mobile Coverage + Key Tourism Areas

(Source: Local Government, Statistics NZ, NZTA, NZRS)

Name: 2015_Combinations_Mobile.mxd
User: janellep
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NORTHLAND REGIONAL COUNCIL

Mobile Coverage + Isolated Communities

(Source: Local Government, Statistics NZ, NZTA, NZRS)

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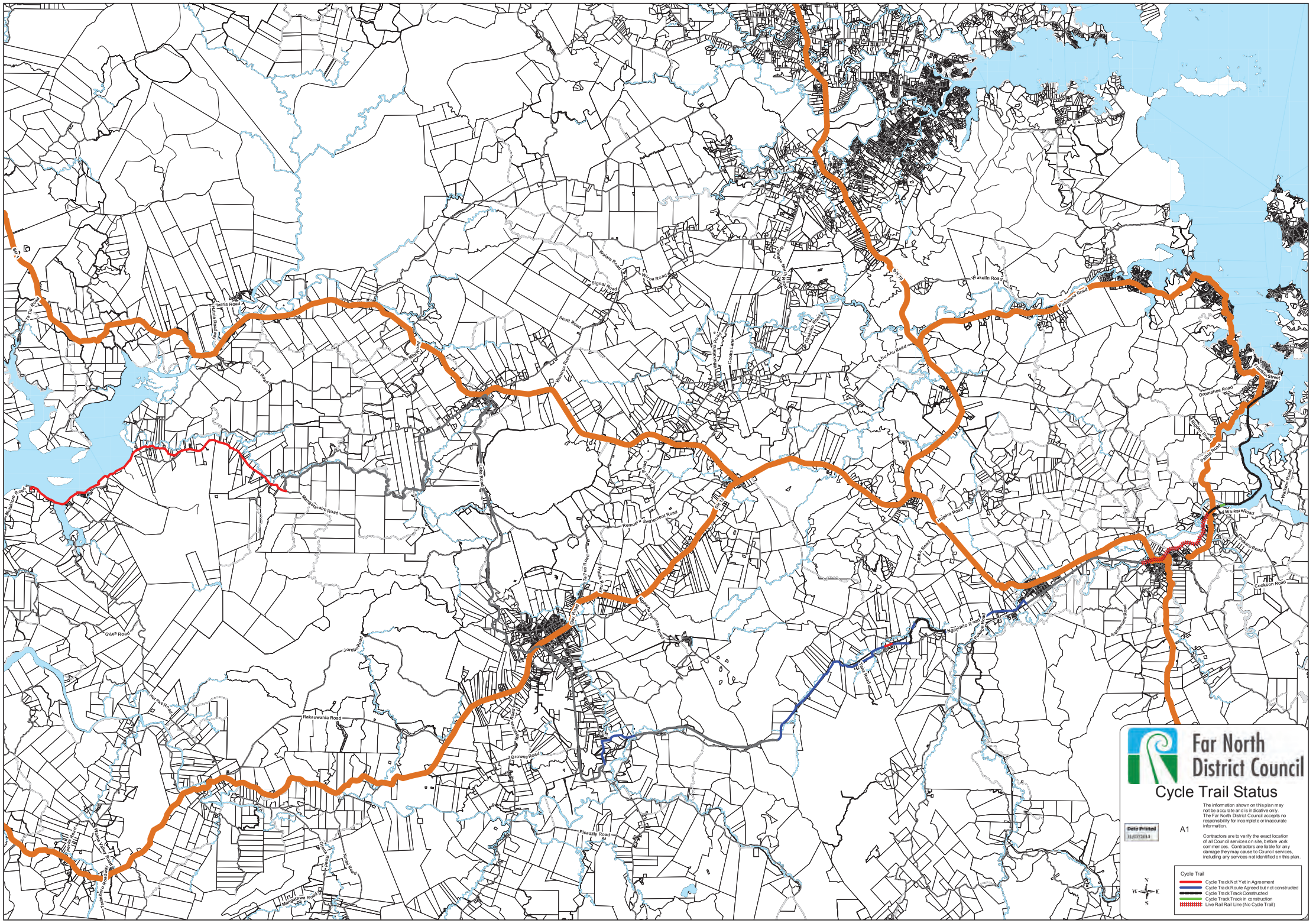
Far North District Council
Cycle Trail Status
The information shown on this plan may not be accurate and is indicative only. The Far North District Council accepts no responsibility for incomplete or inaccurate information.
Date Printed
31/07/2014
A1
Contractors are to verify the exact location of all Council services on site, before work commences. Contractors are liable for any damage they may cause to Council services, including any services not identified on this plan.
Cycle Trail
Cycle Track Not Yet in Agreement
Cycle Track Route Agreed but not constructed
Cycle Track Track Constructed
Cycle Track Track in construction
Live Rail Rail Line (No Cycle Trail)
N
W
E
S
SH 1
SH 10
SH 12
Harris Road
Cook Road
Mangataraire Road
Lake Road
Scott Road
Signal Road
Waiare Road
Wiroa Road
Wakelin Road
Puketona Road
Te Ahu Ahu Road
Oromahoe Road
Franklin Street
Waikare Road
Pakaru Road
Cookson Road
Settlement Road
Ngapipito Road
Smith Road
Hupara Road
Remuera Settlement Road
Ngawha Springs Road
Wallis Road
Te Pua Road
Giles Road
Jordan Road
Horeke Road
Rakauwahia Road
Browns Road
Picadilly Road
Ninihi Road
Mangatawa Road
Waiara Valley Road
Taraehoro Roadway