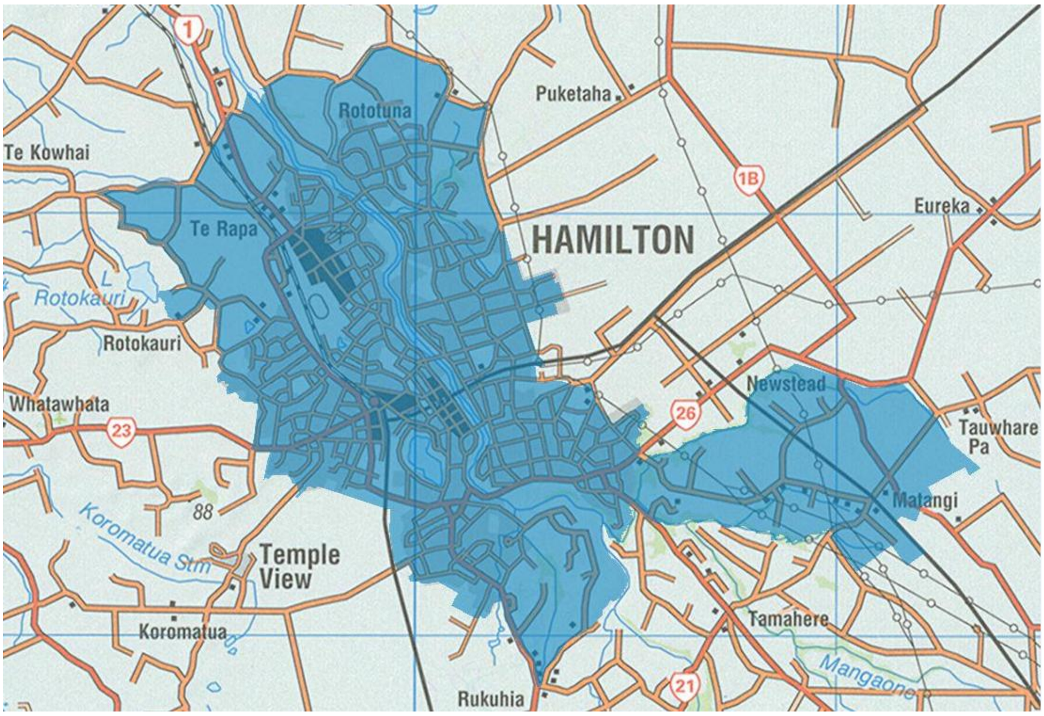
Fact Sheet: Agreement with UltraFast Fibre Limited

UFB Coverage Areas:

Hamilton

From Sylvester & Horsham Downs in the north, Glenview, Riverlea & Peacocke in the south, Brymer & Dinsdale in the west to Silverdale in the east, in accordance with agreements.

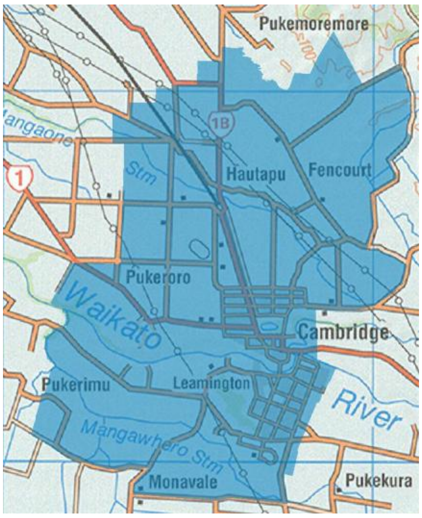


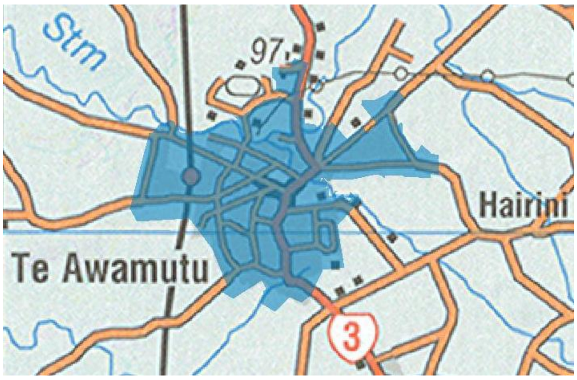
Cambridge

Largely within town boundaries:

Te Awamutu

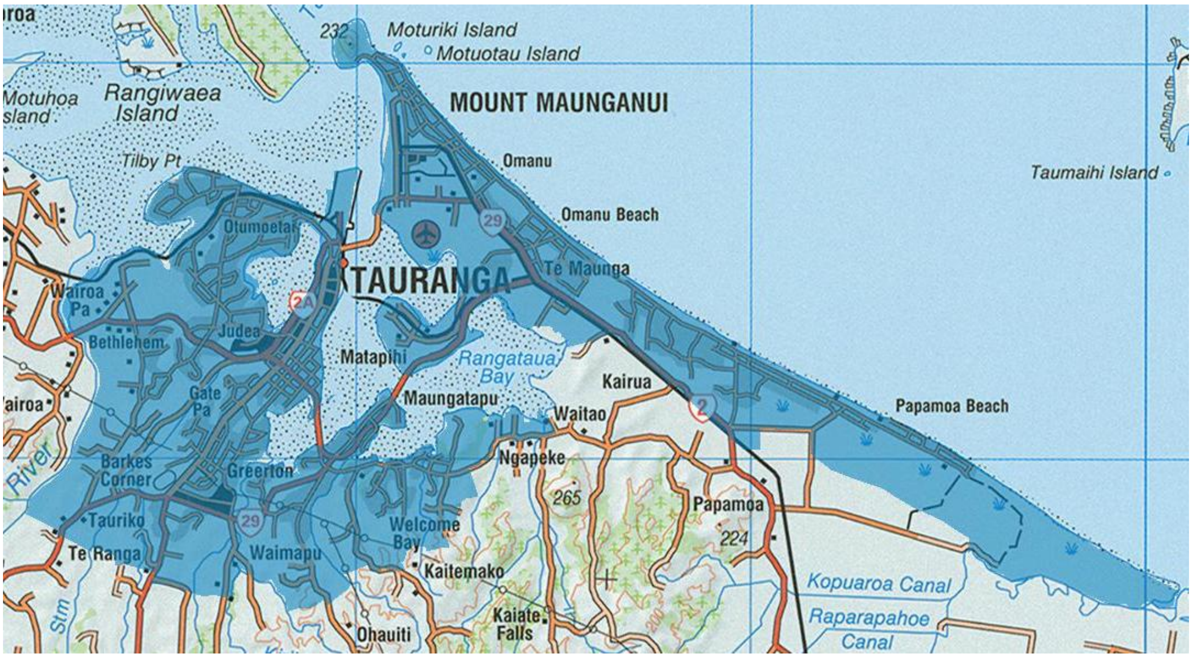
Largely within town boundaries:





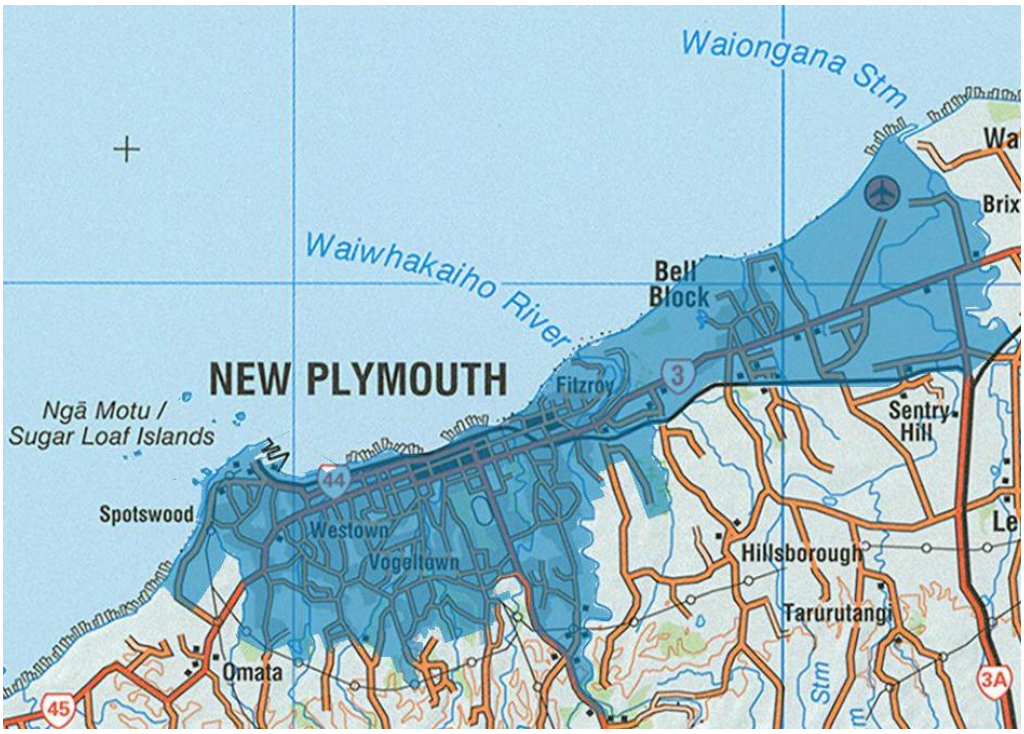
Tauranga

From Matua in the north to Hairini in the south, Bethlehem in the west to the Coast. Includes Mount Maunganui to Palm Springs, in accordance with agreements.



New Plymouth

From Bell Block to Oakura, coast back to Fernleigh & Highlands Park, in accordance with agreements.



Wanganui

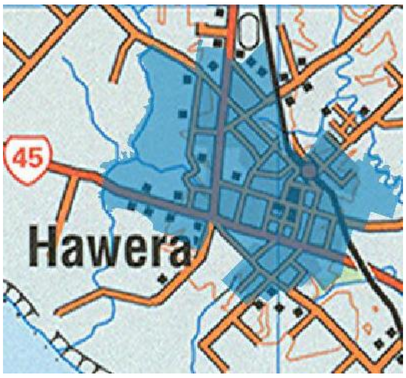
From Castlecliff North to Marybank- Gordon Park, coast to Upper Aramoho, in accordance with agreements.

Tokoroa

From Paraonui & Parkdale in the north, to Aotea, Strathmore and Amisfield in the south, in accordance with agreements.

Hawera

Largely within town boundaries



UFB Marketplace (Sources: Statistics New Zealand, sub national population estimates 2010, Crown Fibre Holdings, Ministry of Education)

Hamilton, Cambridge, Te Awamutu

A combined population of more than 200,000, including more than 4,000 business premises, over 650 medical and other healthcare services and around 70 schools.

Tauranga

A population of more than 118,000 including nearly 2,500 business premises, over 530 medical and other healthcare services and some 30 schools.

New Plymouth

A population of nearly 52,000 including around 2,500 businesses, more than 250 medical and other healthcare services and around 25 schools.

Wanganui

A population of more than 39,500 including more than 1,000 business premises, nearly 130 medical and other healthcare services and over 25 schools.

Tokoroa: A population of more than 13,400.

Hawera: A population of around 11,000.

Indicative Build Timeframe

A five year build programme starting in Wanganui, Hamilton and Tauranga in 2011, with New Plymouth, Hawera and Tokoroa to follow. Priority users such as businesses, schools, health premises and certain tranches of residential premises will receive UFB first. More rollout details will follow as plans are refined.

Products and Pricing

Ultra-Fast Broadband (**UFB**) products are based on a “building block” approach. The Local Fibre Company (**LFC**) will sell ultra-fast broadband components such as downstream bandwidth, upstream bandwidth and Committed Information Rate (**CIR**) to the requirements of Retail Service Providers (**RSP**s). CIR is a guaranteed minimum rate of data transfer for priority traffic.

UFB pricing is at the **wholesale** level, and end-users should bear in mind that prices of retail UFB-based services will reflect non-LFC costs, such as national backhaul, international bandwidth, provisioning, billing and so forth. Crown Fibre Holdings, Northpower and Ultra Fast Fibre intend to publish final UFB wholesale prices prior to initial sales of retail UFB services. **The prices shown below are indicative of expected products and prices and are initial prices only.** Prices are per month excluding GST.

Several “template” products are described below. Note there is **no** additional one off charge for consumer connections:

Product	**Upstream and Downstream Speeds**	**Committed Information Rate**	**How UFB Products Can Be Used**	**Indicative Pricing**
Entry level Consumer	30 Megabits per second (Mbps) Downstream / 10Mbps Upstream	Minimum 2.5Mbps Symmetric, then purchase in 2.5Mbps increments (Downstream or Upstream or both)	Upload a 30MB folder of photos in 24 seconds	$40 or less
Household 100Mbps	100Mbps Downstream / 50Mbps Upstream	As above	Download a High Definition movie in <8.5 minutes	$60 or less
Premium Business	1Gbps Symmetric	Purchase Symmetric CIR in increments of 10Mbps	Send a radiology image (say 1GB) in 8 seconds	$600 or less

Across a wide range of markets, the LFC’s products will compare favourably to services currently available over copper.

Consumer entry level product

The LFC will offer an entry level product for $40 or less per month. This product will download at 30 Megabits per second (Mbps) and upload at 10 Mbps. This is lower than the current price of 'Naked DSL', a wholesale copper product which supports ADSL2+ broadband services without a phone line, known in the industry as EUBA 40.

'Naked DSL' services have a maximum download speed of 24Mbps and 1Mbps upload. Speeds over DSL vary depending on network usage and location and rarely reach maximum speeds. 'Naked DSL' has a guaranteed download speed, known as a Committed Information Rate (CIR) of 45 Kilobits per second. The Ultra fast fibre entry level product has a CIR of 2.5Mbps - this offers approximately 50 times greater dedicated bandwidth than ‘Naked DSL’.

The LFC will also offer a ‘triple play’ entry product with a higher downstream CIR of 10Mbps designed to carry high definition pay TV as well as voice and broadband which will initially be priced at $45 or less .

Consumer 100 Mbps household product
The LFC will also offer a UFB product for the home priced at $60 or less, providing 100Mbps download speed and 50Mbps upload. Like the entry level product this will have a CIR of 2.5Mbps.

Business products
The LFC will offer a suite of competitively priced business products, including dark fibre and premium Layer 2 services like 100Mbps and 1 Gigabit per second symmetrical services. For example, a 1 Gigabit symmetrical service will be priced at or less than $600. This is about half the minimum wholesale price, where this service is currently available. The LFC will also offer ‘dark fibre’ services where the customer is provided with access to the raw fibre infrastructure.

Schools
UFB products for schools are expected to be provided in a similar manner to business products. However, prices will be lower than for businesses because of the Government’s recent decision to cover 100% of the cost of the fibre “drop” from a school’s boundary to its server room.

Potential Economic Impacts of UFB

Hamilton, Cambridge, Te Awamutu

- The key business sectors in the Waikato: agriculture, biotech, life sciences research and education, all stand to benefit from the delivery of UFB in terms of increasing productivity and driving GDP growth.
- As New Zealand’s highest export region, producing almost 20% of our exports, the UFB will support world class connectivity with overseas customers and provide competitive advantage.
- Hamilton’s Digital Industry Leadership Group is now very well placed to continue its positive work to realise the Digital Hamilton strategy.

Tauranga

- Ultra Fast Broadband has the potential to accelerate the growing marine, horticultural and technology sectors in Tauranga.
- The local economic development agency, Priority One says UFB is possibly the single most important element in its strategy to retain, grow and attract highly productive businesses.
- The Nautilus technology park, positioned at Sulphur Point near the central business district will be a key beneficiary of early fibre, assisting the 400 member strong Western Bay of Plenty ICT cluster.

New Plymouth

- Engineering and design companies for oil and gas are likely to enjoy greater access to ultra fast broadband.
- Local meat, dairy and other food processing plants within reach of UFB could all expect to benefit.

Wanganui

- The major economic priorities of the Manawatu: bio-industry, integrated education and smart business will now have even greater potential for growth.
- UFB will assist the region to realise its aims to retain and enhance existing skills as well as attract new skills and resources, and in so doing achieve more 'value-rich' jobs.
- The early deployment of fibre to Wanganui supports Wanganui District Councils desire to be leaders in fibre, following a concerted effort to stimulate local demand and confirm committed intention to connect.

Technology

Both GPON and Point-to-Point technology are being used for UFB.

GPON means Gigabit Passive Optical Network (ITU-T G.984 standard) comprising an optical signal capable of delivering ~2.5Gbps downstream and ~1.2Gbps upstream over a single fibre that is then capable of being split into separate signals to deliver service to multiple customers. For UFB, GPON is split 1:24 enabling up to 24 customers to receive 100Mbps downstream and 50Mbps upstream.

Point-to-point fibre optic connections provide a dedicated signal to a single premise and will be used for premium business and some priority users. This is capable of supporting speeds of up to 10 Gbps and is a high end connection.

About UltraFast Fibre Limited

UltraFast Fibre Limited is a special purpose vehicle which was created by WEL Networks in the course of negotiations, with which to partner in the creation of a Local Fibre Company. WEL is the fifth largest electricity distribution company (by number of connections) in New Zealand. Its core business is the provision of electricity distribution services to the Waikato. The business has nearly 200 staff, a turnover of $96 million and a total asset value of $426 million. WEL Networks has one shareholder, the WEL Energy Trust, a community trust that represents the interests of the local community. WEL Networks originally formed a consortium with partners, Waipa Networks, Hamilton Fibre Networks and Velocity Networks to bid for the Government's ultrafast broadband provision for the Waikato, Bay of Plenty and Taranaki regions.

Deed of Undertaking

The **Deed of Undertaking** with the newly formed LFC, UltraFast Broadband Limited is an agreement between the LFC and the Crown, in which the LFC provides binding "open access" undertakings regarding the application of non-discrimination and equivalence rules in the provision of wholesale telecommunications services offered over infrastructure funded by Crown co-investment. This is enforced by the Commerce Commission.

How Will the LFC Provide Services?

UltraFast Fibre Limited and CFH are partners in the LFC. The LFC will contract with UltraFast Fibre Limited to build the network, and in turn UltraFast Fibre Limited may contract with other suppliers and contractors to assist. CFH funds the cost of fibre "passing", (the connection that runs down the street) as it is completed and signed off to specifications, and then it becomes operational. The partner, UltraFast Fibre Limited funds each “drop”, the connection from the premise to the fibre in the street, as it hooks customers up.

The LFC may then contract with RSPs such as Vodafone, TelstraClear, and so on in the provision of wholesale services. The LFC will operate only at the wholesale level - it doesn’t sell services directly to end users. In turn, RSPs use the LFCs’ wholesale products to create retail UFB-based services which are sold to residents, businesses, schools and health premises.