



Mayor Wayne Brown
Auckland Council
(By email)

5 December 2022

Re: Telecommunication services in the Auckland region

Dear Mayor Brown,

Firstly, congratulations on your election. We share with you a desire, as expressed in your inauguration speech, to work together to improve Auckland and to leave our city and our region in a better and a more sustainable position than it currently is.

We were encouraged by your letter regarding supporting better mobile network coverage and welcome the opportunity to engage with you to support telecommunications infrastructure rollout across the region. We have included some suggested actions Auckland Council and its CCOs can take to support better connectivity at the bottom of this note.

You have asked for some detail on Vodafone's network across Auckland. I am pleased to report:

- 1.) Coverage
 - a. 480 macrosites including Great Barrier Island, giving us a market leading position in Auckland, with additional inbuilding and small cells
 - b. We've upgraded 152 sites to 5G in Auckland with 100+ more 5G upgrades during the next 12 months
 - c. We're establishing private 5G networks for entities such as the NZ Defence Force
- 2.) New sites and capacity build
 - a. 150 new / upgraded sites over the past 24 months
 - b. 3G switchoff will require 126 3G to 4.5G upgrades in Auckland over the next 12 months adding capacity and coverage in 700MHz band
 - c. [add Auckland mobile / FWA data traffic growth stats?]
- 3.) Fibre
 - a. We are working alongside hyperscaler partners to build 170kms of new fibre backhaul in the Auckland region
 - b. 4,300 commercial buildings connected with VFNZ fibre network and 17,000 within 50m of the Vodafone network in the Auckland region
 - c. Vodafone carries domestic and International connectivity from the regions into Auckland plus connectivity to international network gateways.
- 4.) Public Safety Network Build

Vodafone will be delivering priority cellular services to the Public Safety Network for Next Generation Critical Communications. Hourua is a JV including Vodafone and Spark that will build a new communications service that will be used by New Zealand's frontline emergency responders, e.g. Fire and Emergency New Zealand, Police, St John.
- 5.) Innovation



- a. Police helicopter and Westpac helicopter sky pointing antenna and dedicated spectrum with Eagle flight testing early next year
- b. Small cell infill in Devonport delivering localised coverage with planning ongoing for other suburbs
- c. Private 5G at Devonport and Whenuapai
- d. Small cells at Great Barrier Island
- e. 5G Standalone Core will enable 5G use cases like Network Slicing and Edge computing. This supports Enterprise propositions with service isolation and differentiated services.
- f. UoA 5G innovation lab - we are actively collaborating with the University of Auckland. We've partnered with the Business School and recently launched a 5G innovation lab, Te Ahi Hangarau. It provides students and staff access to 5G technology for educational and research purposes.
- g. Schools robotics programme - we're continuing to support the growth of STEM by sponsoring the "Mini Robot Rumble", a creative high school competition run by volunteers the Auckland University Robotics Association.

We recognise that coverage can vary across the region. In urban areas, the environmental and technical nature of telecommunications provision means coverage can be impacted by weather, physical structures and network use. As such, we are continuously working to upgrade the network to meet increasing demand and adapt to the physical transformation of the city. Outside of more densely populated centres, there are areas that are simply uneconomic to service, which necessitate engagement with Government. For these areas, we continue to play an active role in the Rural Broadband Initiative and Rural Connectivity Group, which I am happy to brief you on.

We have also established a programme whereby customers can "Drop a Pin" to tell us exactly where they're experiencing dropped calls, slow speeds or simply don't have connectivity at all. We're collating that information and are adding it to our development programme for 2023.

We recognise that coverage can vary across the region. In built up areas, the nature of telecommunications provision coverage can be impacted by physical factors such as building shadows, weather and network demand. As such we are constantly upgrading and refining the network to meet usage increases and Auckland's changing topography. Outside of more densely populated centres there are areas that are simply uneconomic to service, which necessitate engagement with Government. We continue to play an active role in the Rural Broadband Initiative and Rural Connectivity Group, which I am happy to brief you on.

We have also established a programme whereby customers can "Drop a Pin" to tell us exactly where they're experiencing dropped calls, slow speeds or simply don't have connectivity at all. We're collating that information and are adding it to our development programme for 2023.

In terms of support Auckland Council and its CCOs can play, we endorse the suggestions provided to your office by the TCF and look forward to discussing these with you at our meeting tomorrow, in addition to the following recommendations:



- a. Improve and automate the process for road access and road closure notices, and access to easements for mobile network, fibre and backhaul builds (with appropriate safety and traffic management considerations)
- b. Applicants for new sub-divisions and town centre developments should be required to liaise with mobile network operators (MNOs) and allocate cell site space as part of the consent process before builds, so people do not get surprises later resulting in resource consent issues
- c. New high rises should be mandated to include roof space for antennae (as they are required to do for power/water)
- d. AT and council should allow access to bus shelters/stations and light poles for small cells – ideally this is at a peppercorn lease arrangement to maximise budget available for deployment and upgrades (current lease arrangements are expensive)
- e. Panuku cell-site leases are onerous with limited tenure, high rentals and limited upgrade rights. Network rollout would also be improved with faster turnaround on lease negotiations Auckland Council should support RMA reform that enhances and speeds up telco deployment (retain and improve NES for mobile)
- f. Introduce a clear escalation procedure for MNOs that directs rollout holdups to Auckland Council's Director Regulatory Services and AT's Executive General Manager Planning & Investment and Eke Panuku's COO

We look forward to discussing these and other matters for supporting Auckland's development at our meeting tomorrow.

Kind regards,

Tony Baird
Vodafone NZ Wholesale and Infrastructure Director