

NEMA RESILIENCE FUND

ALTERNATE COMMUNICATIONS

West Coast Emergency Management

July 2024

## **BACKGROUND**

The West Coast region is vast with challenging terrain with communities that are easily isolated for long periods of time when there is an emergency event.

The cell phone network is poor or non-existent in many parts of the region. VHF networks and communications relying on fibre are vulnerable due to their location being near or on high hazard risk areas, such as the Alpine Fault.

## **NEMA RESILIENCE FUNDING**

This project was carried out with funding support from the National Emergency Management Agency (NEMA). Successful applications for this fund must align to the National Disaster Resilience Strategy (NDRS) <https://www.civildefence.govt.nz/cdem-sector/plans-and-strategies/national-disaster-resilience-strategy>

This project aligns to the following NDRS priorities:

Managing risks Objectives: 1) Risk scenarios and informed decision making, and 6) Economic impacts

Effective response to and recovery from emergencies

Objective: 10) enable and empower community-level response, and ensure it is connected into wider coordinated responses

Enabling, empowering, and supporting community resilience

Objectives: 13) ...build resilience, paying particular attention to those people and groups who may be disproportionately affected by disasters, and 15) ...take a whole of city / district / region approach to resilience

## ***PROJECT OBJECTIVE***

To increase the resilience of existing communications and provide further capability across the PACE model (Primary, Alternate, Contingency, Emergency) to ensure that when major events occur, the response and connect to partner agencies and communities to gain situational awareness and provide much needed support.

## ***PROJECT COMPONENTS***

1. Install of additional DOC VHF Repeater for South Westland
2. Stock-take and assessment of existing VHF assets
3. Four deployable coordination centre satellite assets (Starlink)
4. KA Band upgrade for Franz Josef and Buller Emergency Operation Centre to increase frequency range

## **COMPONENT ONE:**

Install of additional Department of Conservation (DOC) VHF Repeater for South Westland

## **OBJECTIVE:**

Strengthen radio network as a backup network in the event if all or part of emergency management network is lost.

## **WHAT WAS ACHIEVED:**

An additional DOC VHF repeater has been installed at Mt Bonar that provides better coverage in South Westland and provide a close alternate VHF network. This included the design, specification and build and install.



## A New radio repeater on Mt Bonar.

Department of Conservation worked with West Coast Emergency Management to get greater resilience of the West Coast radio networks and the ability to use the DOC network as a backup to the the emergency management network. To achieve this a new repeater was added between Hokitika and Franz.

With funding support from the NEMA Resilience Fund, West Coast Emergency Management were able to request DOC to build the additional repeater.

For Hokitika it means that you can transmit and have direct communication all the way down as far Haast which will hugely improve operational readiness.

For Franz it means improved coverage to the north particularly around Harihari that has in the past been patch coverage. Franz will also be able to talk directly to Welcome Flat Huts, a popular South Westland tramping hut.

**COMPONENT TWO:**

Stock-take and assessment of existing VHF assets

**OBJECTIVE:**

Strengthen radio network as a backup network in the event if all or part of emergency management network is lost.

**WHAT WAS ACHIEVED:**

A stock take of VHF assets across the region to identify location and specification of radio assets to determine what assets to re-programme, upgrade or replace.



### **COMPONENT THREE:**

Position four deployable coordination centre satellite assets (Starlink) across the region.

### **OBJECTIVES:**

- Improve deployable capability for satellite (voice/data) communication
- Enhance satellite alternative for the Emergency Coordination Centre (ECC).

### **WHAT WAS ACHIEVED:**

An additional DOC VHF repeater has been installed at Mt Bonar that provides better coverage in South Westland and provide a close alternate VHF network. This included the design, specification and build and install.



## **MEDIA RELEASE**

**19 December 2022**

### **West Coast CDEM boosting emergency communications**

West Coast Emergency Management are working with telecommunications specialists J-Tech to increase alternate communication capability on the West Coast to better assist with large-scale disasters.

All too often many parts of the West Coast experience communication black outs and with the threat of an alpine fault earthquake ever-present, an alternate communication option has been found with Starlink Satellite equipment.

West Coast Emergency Management Group Manager Claire Brown says in the event of a large-scale event such as the alpine fault earthquake many West Coast communities will be cut off from communications.

“We’ve been working closely with Jason Somerville from J-Tech in Christchurch to build resilience by way of satellite communications and created an ‘In Case’ solution which is a portable Starlink connection in a waterproof case.”

The kit is designed to use an alternative power source such as a 12 volt in a vehicle if mains power or a generator is not available. This new technology gives emergency management the ability to establish and maintain communication during disasters. The kit has been tested across the West Coast using a vehicle as the only power source.

Mr Somerville says if there’s a clear view of the sky and a power source the kit will work. “It automatically establishes communication with a satellite link and starts projecting a wifi signal. It means you can support an Emergency Operation Centre in any disaster, at any location.”

Currently there are three of these kits on the West Coast in Buller, Grey and Westland districts. In a disaster such as an Alpine Fault earthquake, Emergency Management Officers can set up communications in Emergency Operations Centres and respond more quickly.

“We are grateful recipients of Resilience Funding through the National Emergency Management Agency (NEMA), and along with the expertise of J-Tech, this new satellite technology has exceeded our own expectations,” says Ms Brown.

West Coast Emergency Management is currently working alongside councils to seek further funding to increase this capability for West Coast communities.

ENDS





Above: Jason Sommerville (JTECH) and Claire Brown (Group Manager, West Coast Emergency Management) with one of four deployable StarLink units distributed across the West Coast Region.



Above: South Westland Students getting shown the ropes for Starlink setup and connecting to car battery.

Left: Showing the mobile Starlink InCase set-up and power pack at the 2024 Westport A&P Show





Below: Buller community coordinators and volunteers get a run through the starlink cases deployed throughout the district.



Sheree Cargill  
PHOTOGRAPHY

**COMPONENT FOUR:**

KA Band upgrade for Franz Josef and Buller Emergency Operation Centre to increase frequency range

**OBJECTIVES:**

To improve the frequency range of the satellite connections in both South Westland and Buller areas.

**WHAT WAS ACHIEVED:**

KA Band upgrades made for Franz Josef and Buller to improve the satellite connectivity for the existing assets in these locations.



Left: West Coast Controllers running through the Starlink InCase set-up.



Right: Grey District community volunteers practice Starlink set-up.