



**Forest & Bird**

TE REO O TE TAIAO | *Giving Nature a Voice*

Room for the Waal River, in the Netherlands.

© Courtesy of Royal HaskoningDHV

# MAKING ROOM FOR RIVERS



May 30, 2021 11:06:48 AM

Taken by:  
ECan (Verity Kirstein)

North Branch Ashburton  
River looking upstream  
(Shearers Rd N in bottom  
right of image)

Record ID: C21C/154734

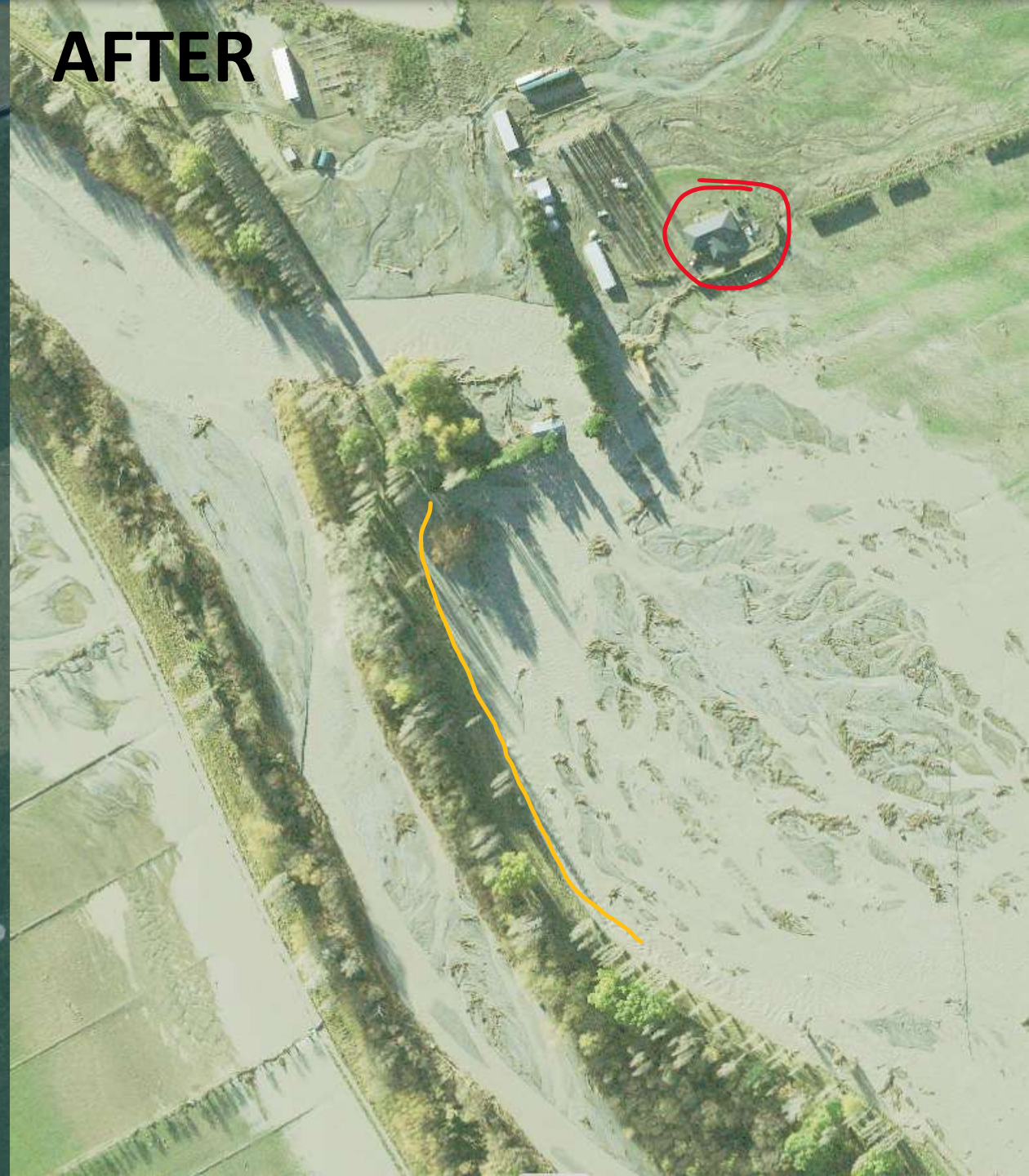
Comments: Time Recorded  
by Camera Clock (May have  
been corrected)

# Ashburton/ Hakatere

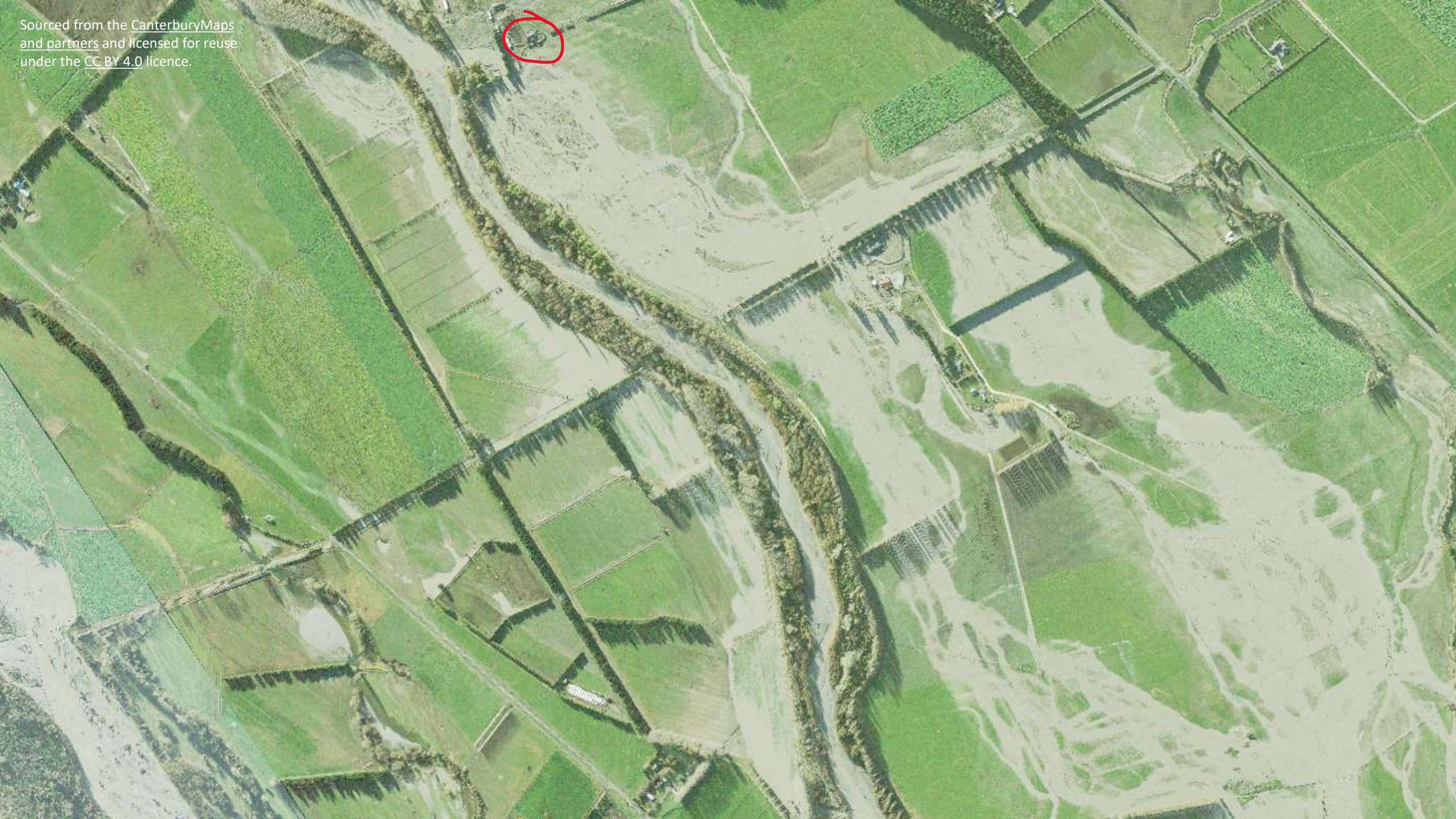
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by Environment  
Canterbury  
[https://apps.canterbury  
maps.govt.nz/FIR](https://apps.canterbury.maps.govt.nz/FIR)

**BEFORE**

**AFTER**



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May 31, 2021  
3:16:41 PM

Taken by: ECan  
(Callum Margetts)

South Branch  
Ashburton River  
looking southwest  
downstream of  
Blacks Road

Record ID:  
C21C/181510

Comments: Time  
Recorded by Camera  
Clock (May have  
been corrected)

NEW ZEALAND

# Te Tairāwhiti roads to re-open after flooding

10:42 am on 2 April 2022

Share this



Main roads in Te Tairāwhiti are being re-opened with restrictions after being damaged by severe rain.



A section of the bridge in Tokomaru Bay has been wiped out by flood water, bisecting the town alongside State Highway 35 Photo: RNZ / Angus Dreaver

<https://www.rnz.co.nz/news/national/464492/te-tairawhiti-roads-to-re-open-after-flooding>

# Central Hawke's Bay: Deluge washes dead animals into waterways, roads closed, rivers rise

3:13 pm on 26 March 2022

Share this



Jake McKee, reporter

@journjake

jake.mckee@rnz.co.nz

Central Hawke's Bay District Council is anticipating an expensive bill as it prepares to clean up from heavy rain that has hit the area over the past two days.



A ford was washed out in heavy rain near the Central Hawke's Bay District village of Ongaonga. Photo: RNZ / Jake McKee

<https://www.rnz.co.nz/news/national/464007/central-hawke-s-bay-deluge-washes-dead-animals-into-waterways-roads-closed-rivers-rise>

# Westport flood: 450 homes still unlivable or damaged

11:34 am on 14 October 2021

Share this



**Samantha Gee**, Nelson Marlborough reporter  
✉ [samantha.gee@rnz.co.nz](mailto:samantha.gee@rnz.co.nz)

Almost three months after floodwaters ravaged the coastal town of Westport, 140 people remain in temporary accommodation, living in cabins, motels or with friends and family.



A partly-submerged car outside flooded houses on Disraeli St, Westport. Photo: Supplied/NZ Defence Force

<https://www.rnz.co.nz/news/national/453511/westport-flood-450-homes-still-unlivable-or-damaged>

# Weather chaos: tourists stranded on West Coast for days

6:54 am on 9 December 2019

Share this



Nearly 1000 tourists are stranded in Franz Josef and they could remain there until Friday, while in Timaru District the council says it could take weeks to recover from flood damage.



A washed out bridge near Mt Hercules on SH6 on the West Coast. Photo: RNZ / Conan Young

<https://www.rnz.co.nz/news/national/405092/weather-chaos-tourists-stranded-on-west-coast-for-days>

# Timaru District floods: Rangitata residents told to evacuate

1:31 pm on 10 December 2019

Share this     

The Timaru District Council has extended its evacuation area around the Rangitata river and is urging people to leave before it is too late.



Photo: Facebook / Timaru District Council

<https://www.rnz.co.nz/news/national/405178/timaru-district-floods-rangitata-residents-told-to-evacuate>



# Edgumbe

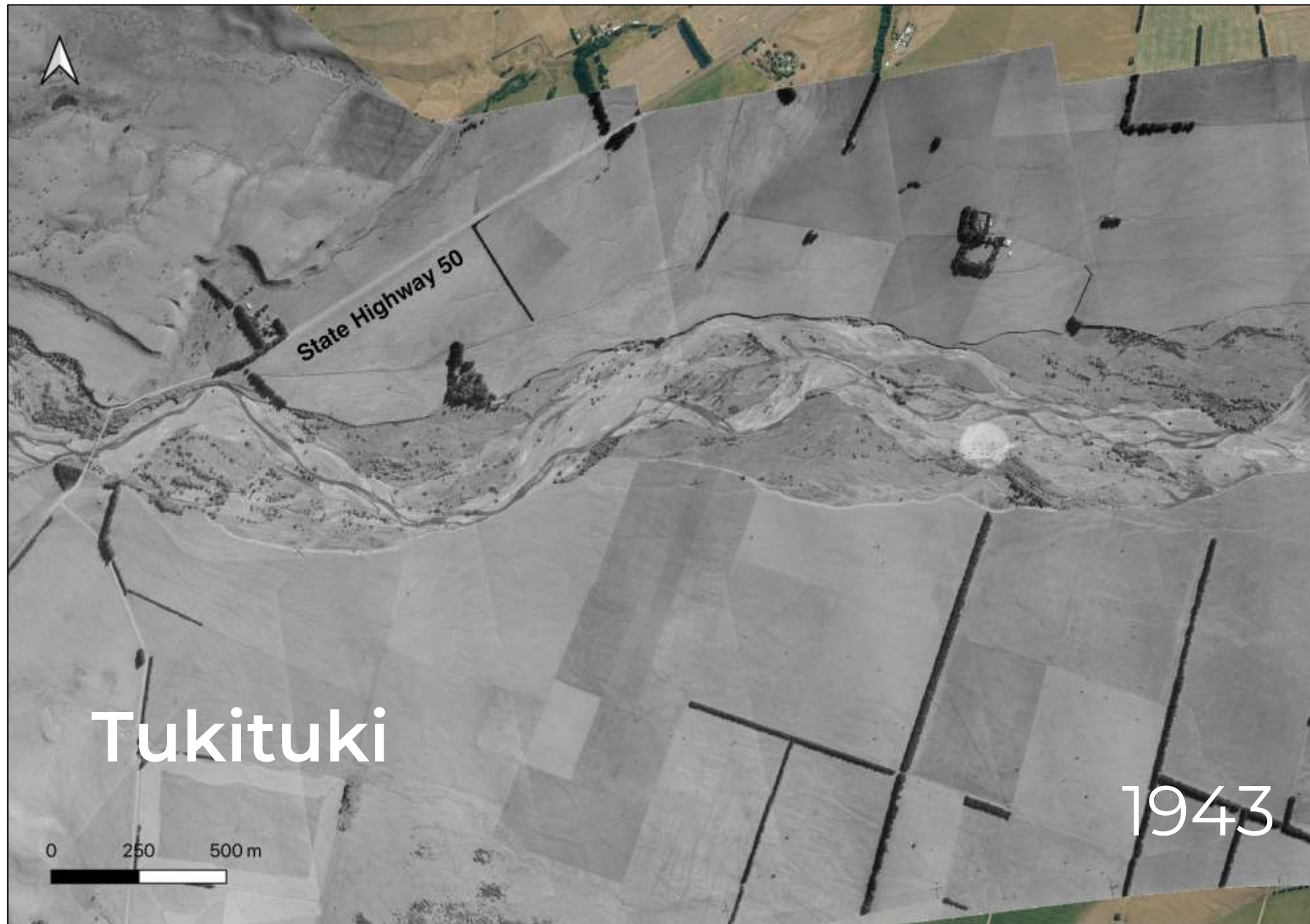
Sky View Photography NZ  
<https://www.stuff.co.nz/national/91333436/photos-edgumbe-flood-as-seen-from-the-air>

**“Research after the [2021 Canterbury flooding]... found that the extreme rainfall during this event was 10-15% more intense as a result of human influence on the climate system.”**

**“In less than one day [in November] Gisborne...  
received more rainfall than it did during all of  
summer 2020-2021”**

**“[In 2021] With the exception of February and March, every other month of the year had at least one location experience their wettest day on record.”**

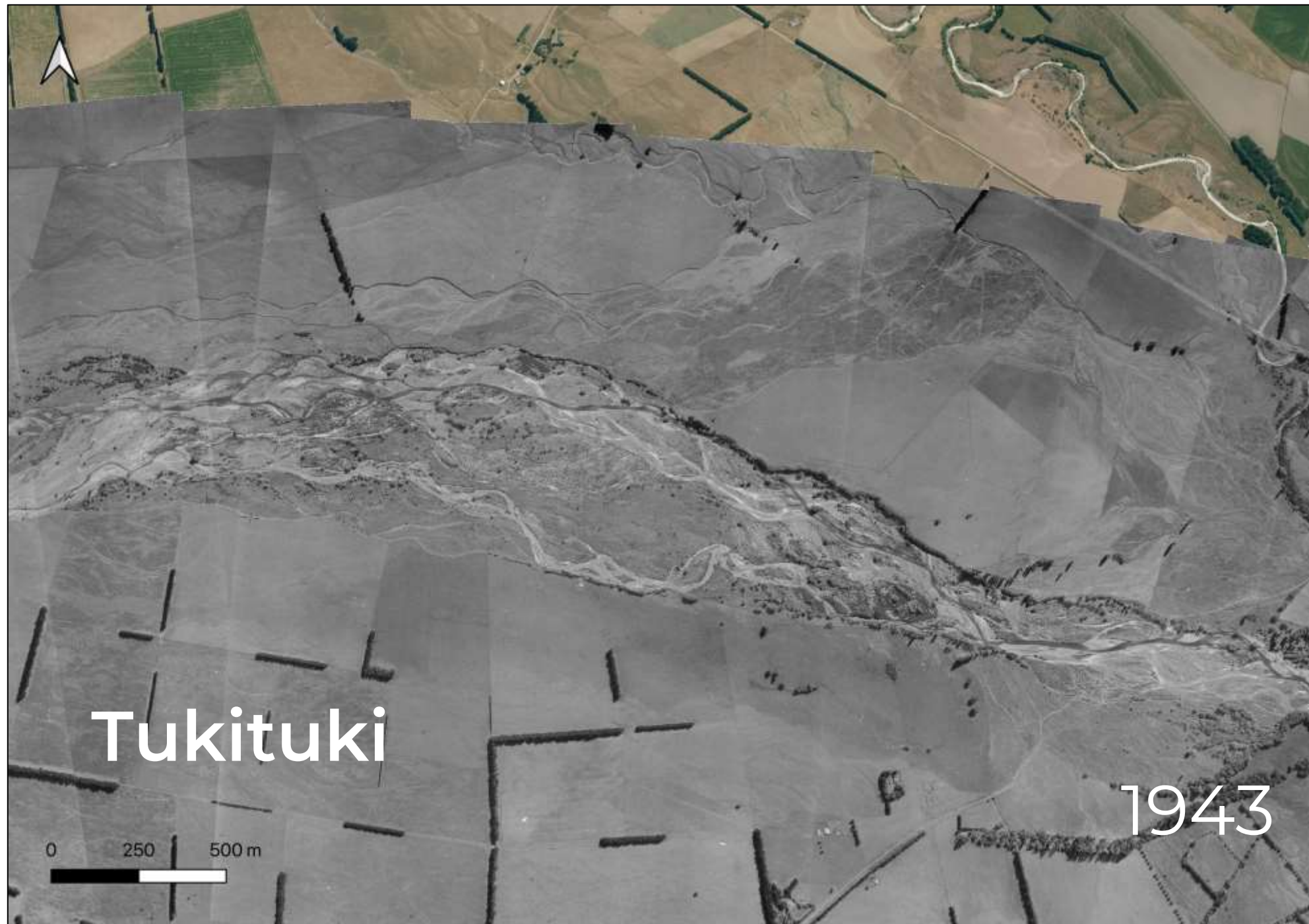
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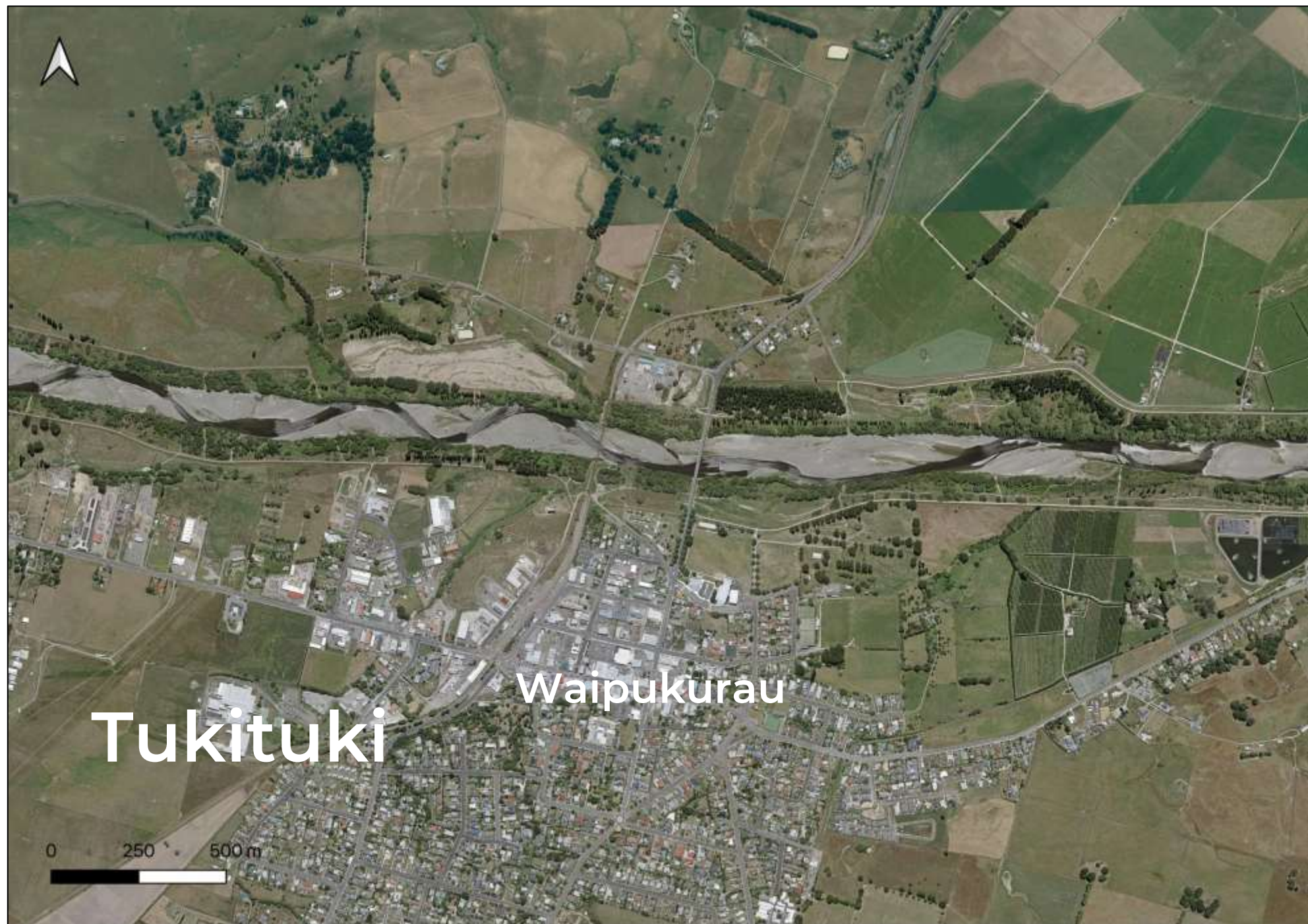
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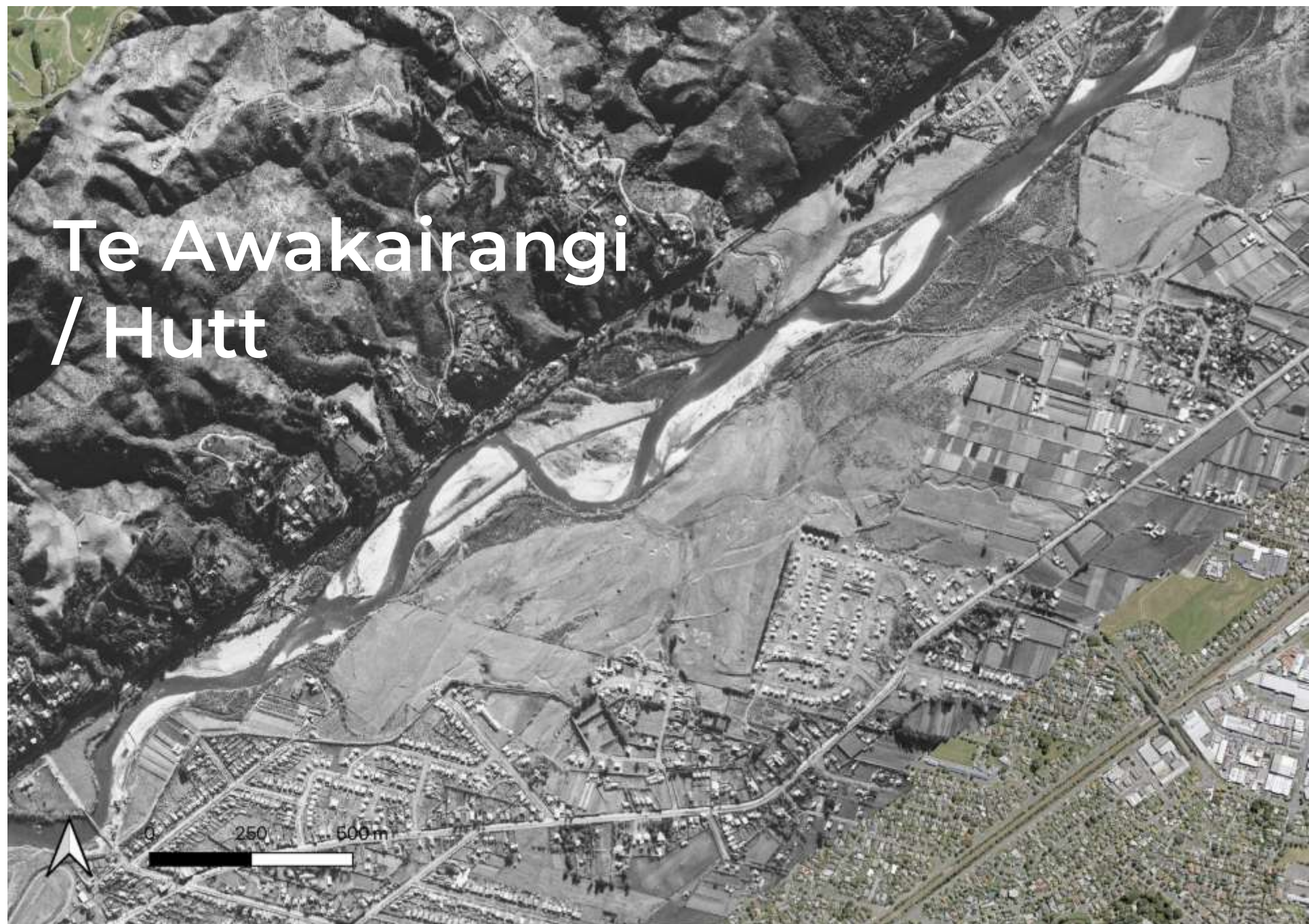
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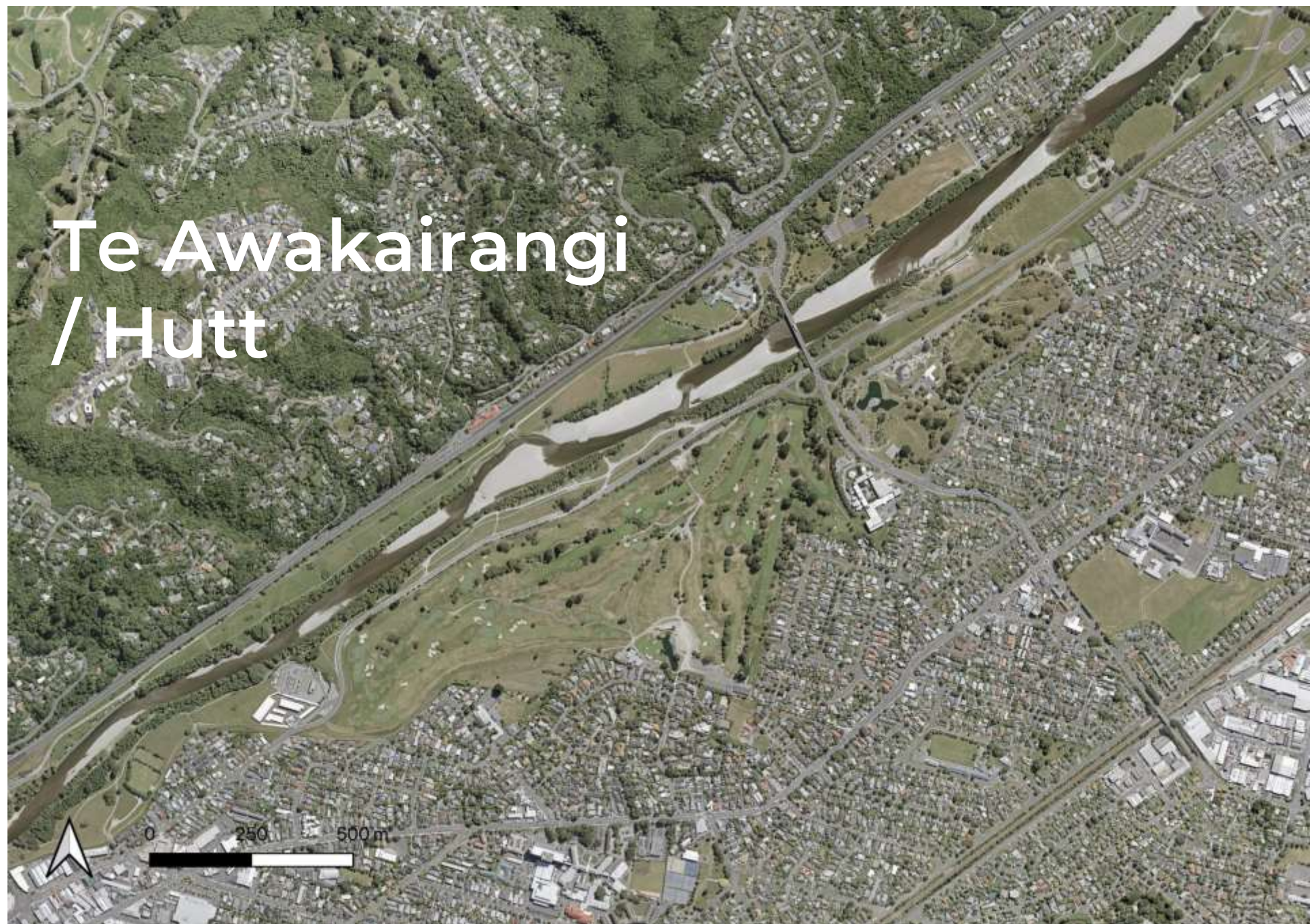
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# Ngaruroro River at Maraekakaho

0 1 2 km



# Ngaruroro River at Maraekakaho

0 1 2 km



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Rangitata  
1937

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Rangitata  
2016-2018



# Manawatū Awa, Palmerston North

✓ Palmerston North 0.125m Urban Aerial Photos (2018)

Basemap © MapTiler © OpenStreetMap contributors

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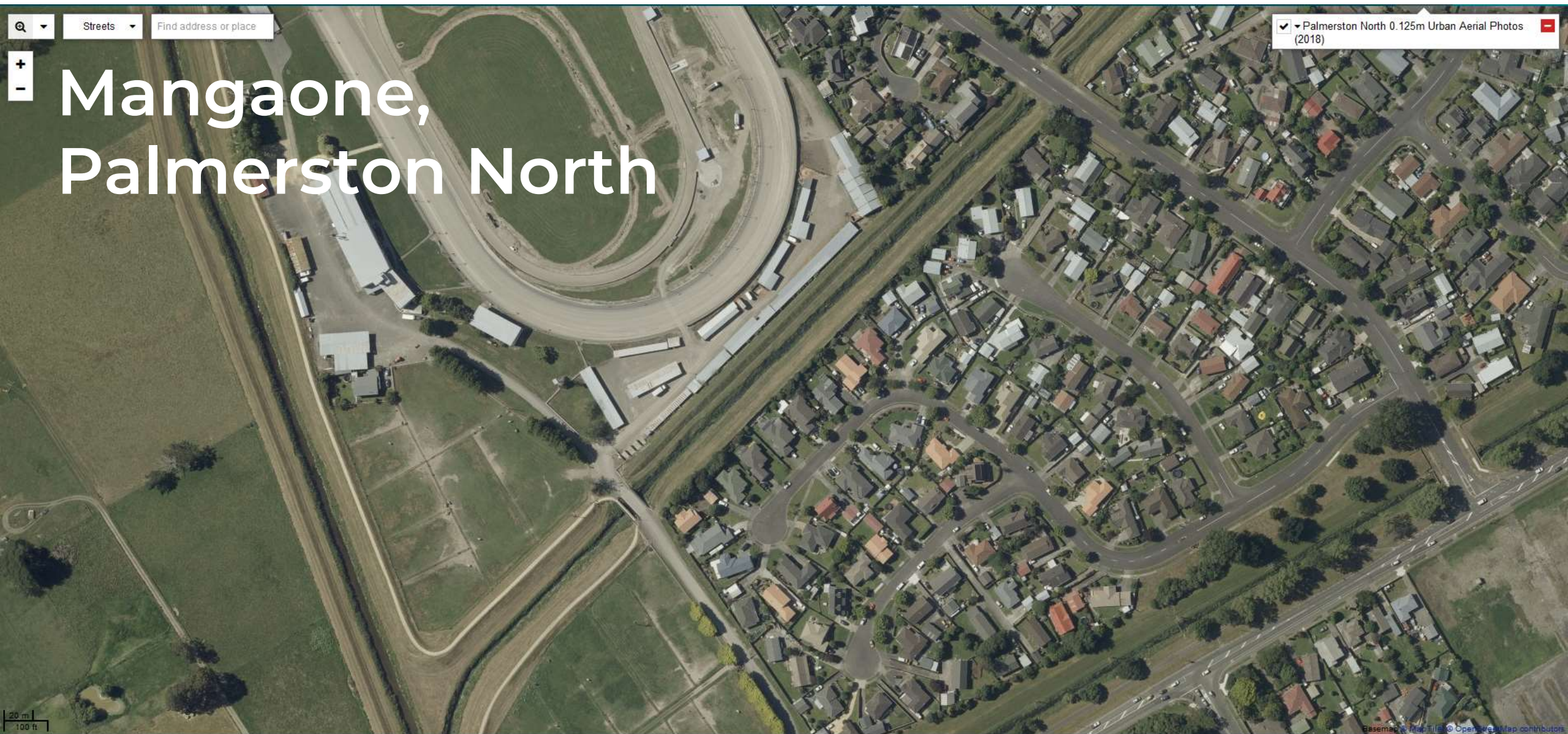


# Manawatū Awa, Palmerston North



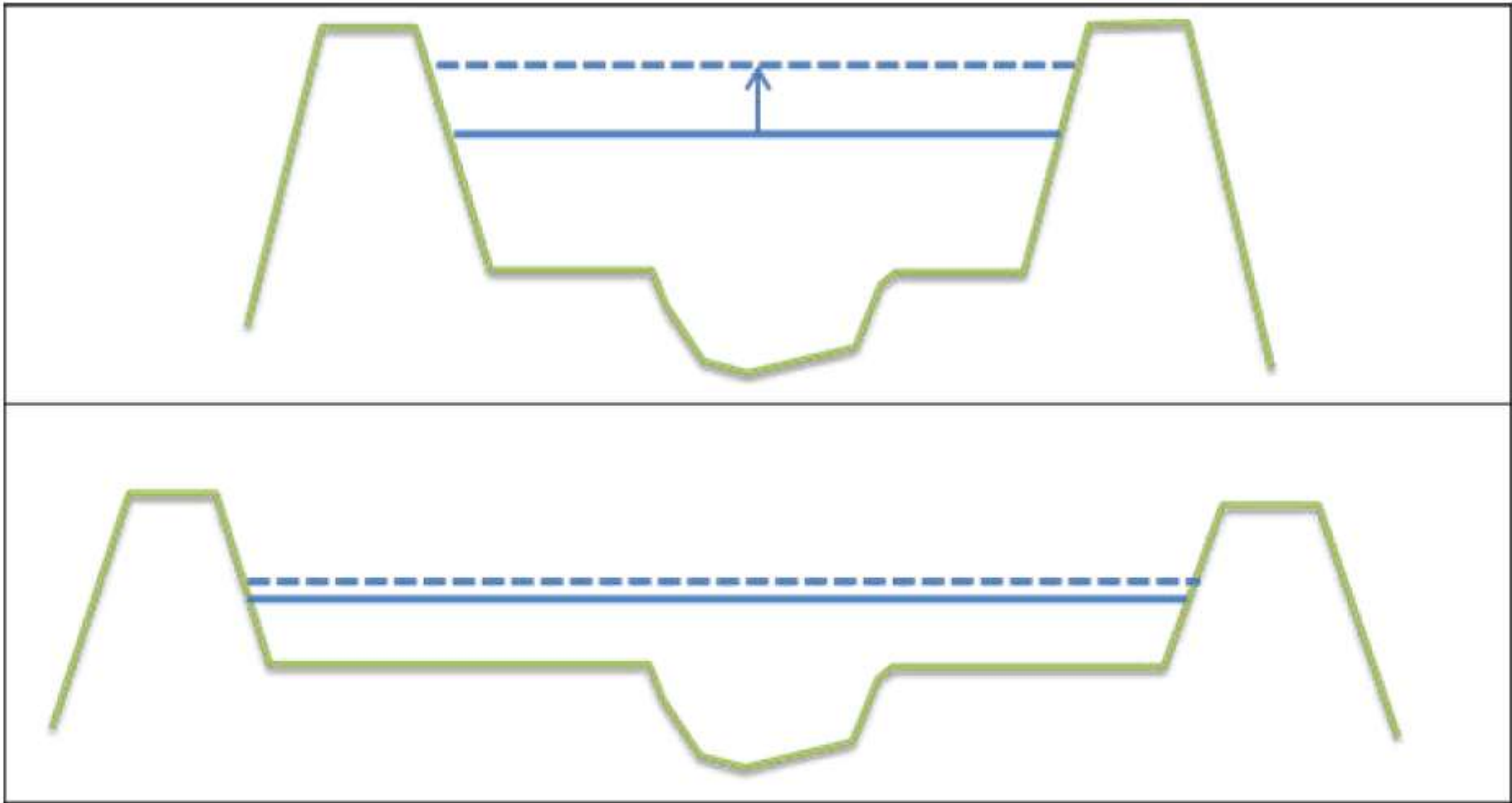
# Mangaone, Palmerston North

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# Mangaone, Palmerston North

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**From:** Making room for rivers: quantification of benefits from a flood risk perspective. Asselman, E. M., and Klijn, F. (2016). FLOODrisk 2016 – 3<sup>rd</sup> European Conference on Flood Risk Management.



# Edgumbe

Sky View Photography NZ  
<https://www.stuff.co.nz/national/91333436/photos-edgumbe-flood-as-seen-from-the-air>

# Rangitata / Rakitata



# Narrowed Wairau River influencing aquifer recharge levels

Maia Hart Local Democracy Reporter • 05:00, Jun 27 2022



STUFF

A narrowed Wairau River could be contributing to a decline in the Wairau aquifer, a key source of irrigation, drinking and stock water.

<https://www.stuff.co.nz/national/politics/local-democracy-reporting/128998428/narrowed-wairau-river-influencing-aquifer-recharge-levels>

**“...the combined **\$200m** of regional and unitary council investment in flood protection schemes each year [is] falling short of what is required to meet flood protection needs by **\$150m** per annum.”**

**“[Environment Canterbury] expect the final cost of damage to our flood protection infrastructure [from recent flooding] to be somewhere between **\$15 million** and **\$20 million**.”**

**This is the replacement cost for infrastructure on a ‘like-for-like’ basis and does not include any additional costs for potential improvements.”**



Case Integrated Water Management 15 April 2019

# Room for the River Programme

#Nature based solutions

Room for the Waal River, in the Netherlands. © Courtesy of Royal HaskoningDHV



**A study of two Dutch rivers in the programme, the Rhine and Meuse, found that widening their floodplains to reduce river levels by 30cm lower during floods reduced the probability of dyke failure by two to five times.**

**Lowering river levels by 50cm cut the risk of failure by more than 10 times.**

**“...we employed nature-based solutions that increased the rivers’ water-carrying capacity by opening up more room for the water to naturally flow... Residents are safer, communities are more resilient, and the whole area is more attractive for recreation and tourism”**

George Peters, Global Director of Climate Resilience at Royal HaskoningDHV,  
in the Forest & Bird Winter 2022 magazine.



# 2022 RIVERS GROUP CONFERENCE **MAKING ROOM FOR RIVERS**

**9-11 November 2022**

📍 Lower Hutt Events Centre

## **Tēnā koutou katoa | Greetings!**

The Rivers Group | Manatūaki Kōawa warmly welcome you to their conference to be held in Lower Hutt | Te Awa Kairangi, from 9-11 November 2022.

The conference theme is Making Room for Rivers. With climate change predicted to bring more extreme floods and changing community values, there is pressure on river managers to look for alternative methods when providing more integrated catchment management. One such aspect is making room for rivers. Our conference this year will explore how to make this concept a reality

## Goals



### Stopbanks

The height of the stopbanks will be increased by one metre to strengthen flood defences and improve resilience.



### River channel

The river channel will be widened to 90 metres giving more room for it to flow naturally. A wide channel will help a higher volume of water to pass during floods.



### Environment

The Belmont wetland filters stormwater before it flows into the river. The wetland includes shallow and deep habitats to support indigenous plants that will improve water quality.



### Improving resilience

Ungraded stopbanks will strengthen flood defences, while wider river channels will help higher volumes of water to pass during floods.

2017

# Orari stopbank realignment

2021



Imagery from Shaun McCracken, Environment Canterbury.

# Rangitata / Rakitata

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**Thomas (Tom) Kay**

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Rangitata River Gorge. © Thomas Kay.

Supported by Victoria University, Forest & Bird,  
and Amy Atkins.



**Forest & Bird**

TE REO O TE TAIAO | *Giving Nature a Voice*