

# Evolution of Wairau

## Flooding and Water Quality

Nick Vigar, Head of Network Planning, Healthy Waters

December 2024



## What I'll be covering

### Flooding

- History of Wairau
- Causes of flooding and what happened on Anniversary weekend 2023

### Recovery

- Recovery process – what has been done since 2023

### Looking Ahead

- Planning for the future

### Quality

- Sediment generation
- Urban contaminants
- Stormwater treatment

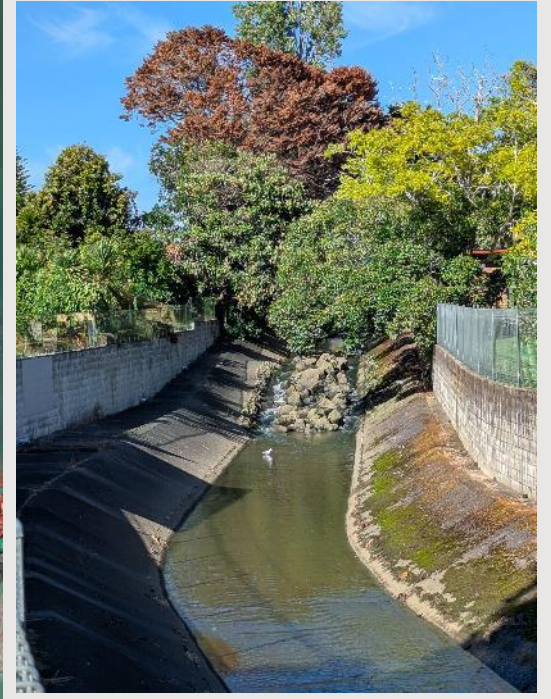
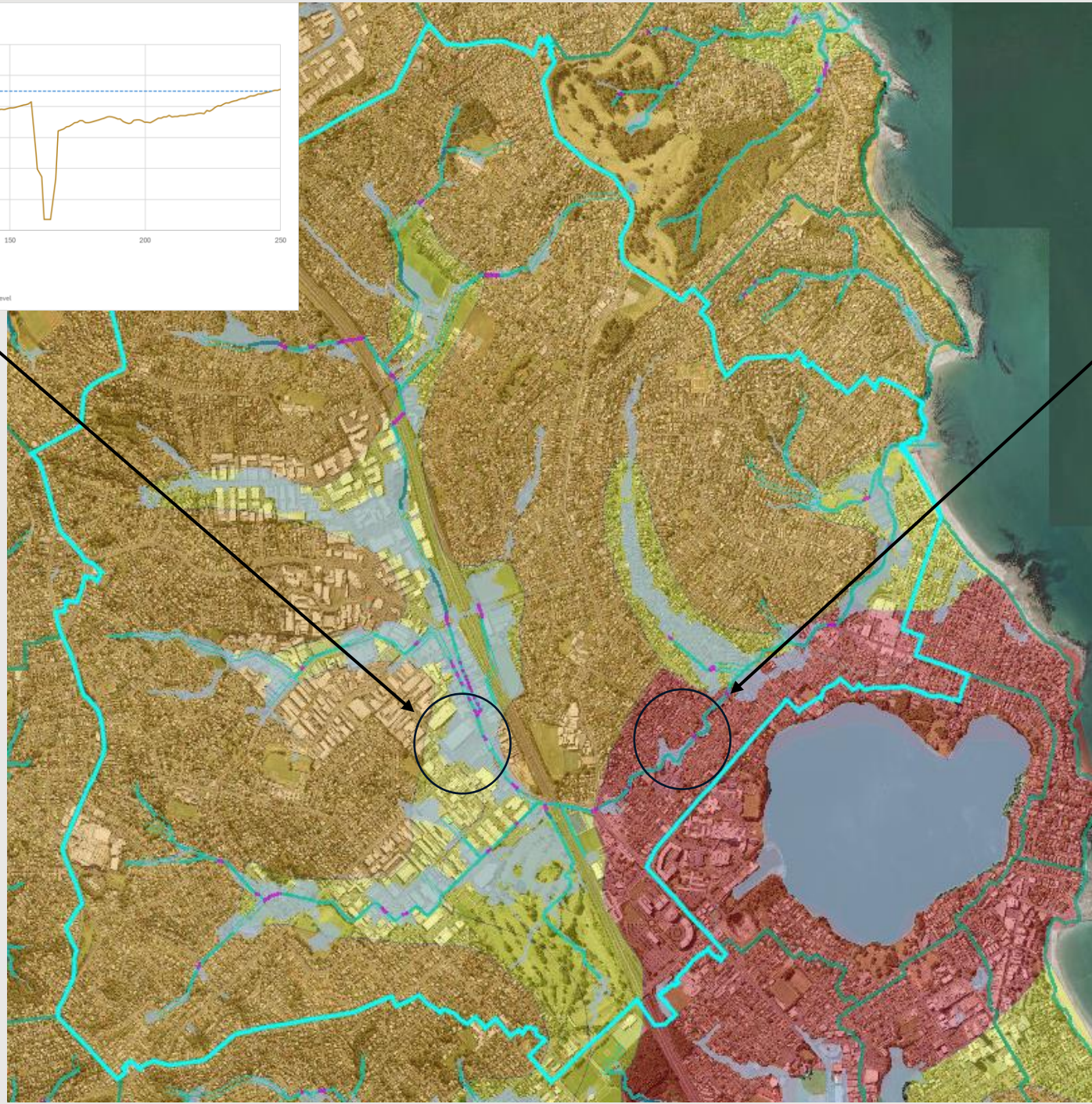
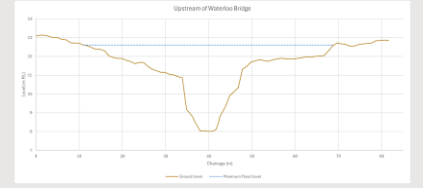
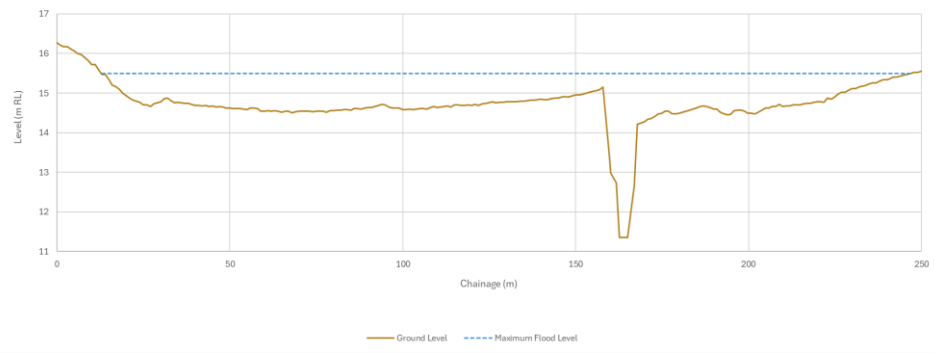


# Causes of Flooding - Geological





Wairau Road

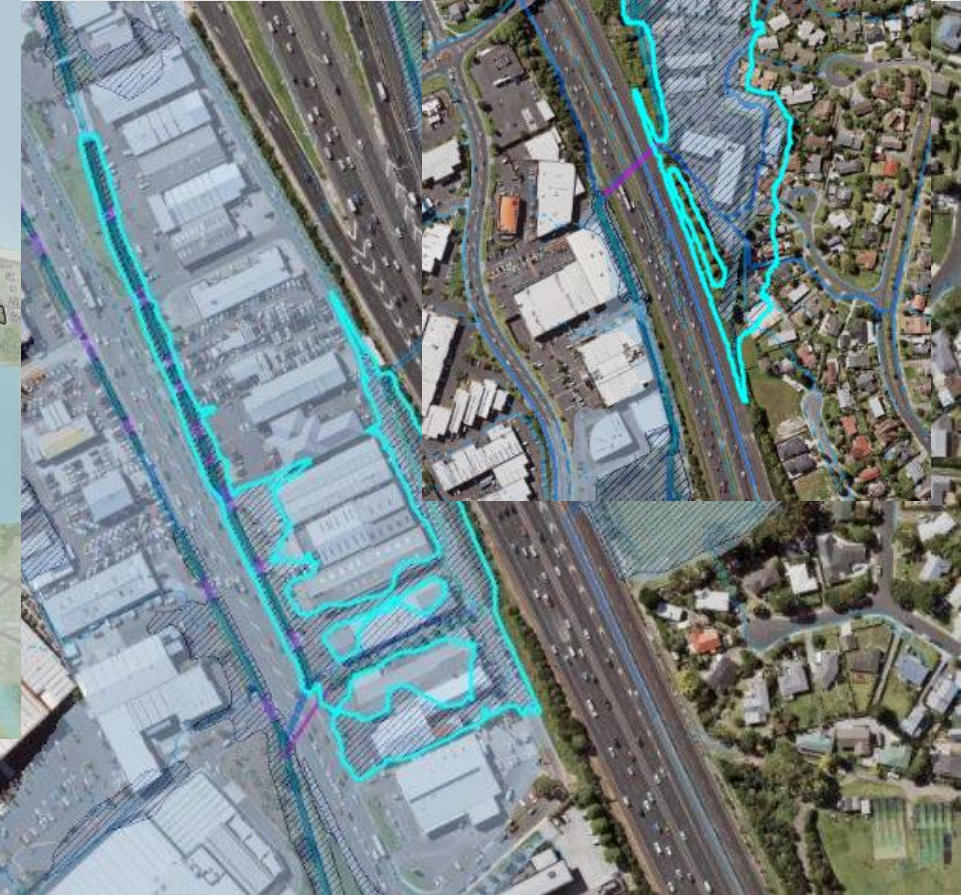








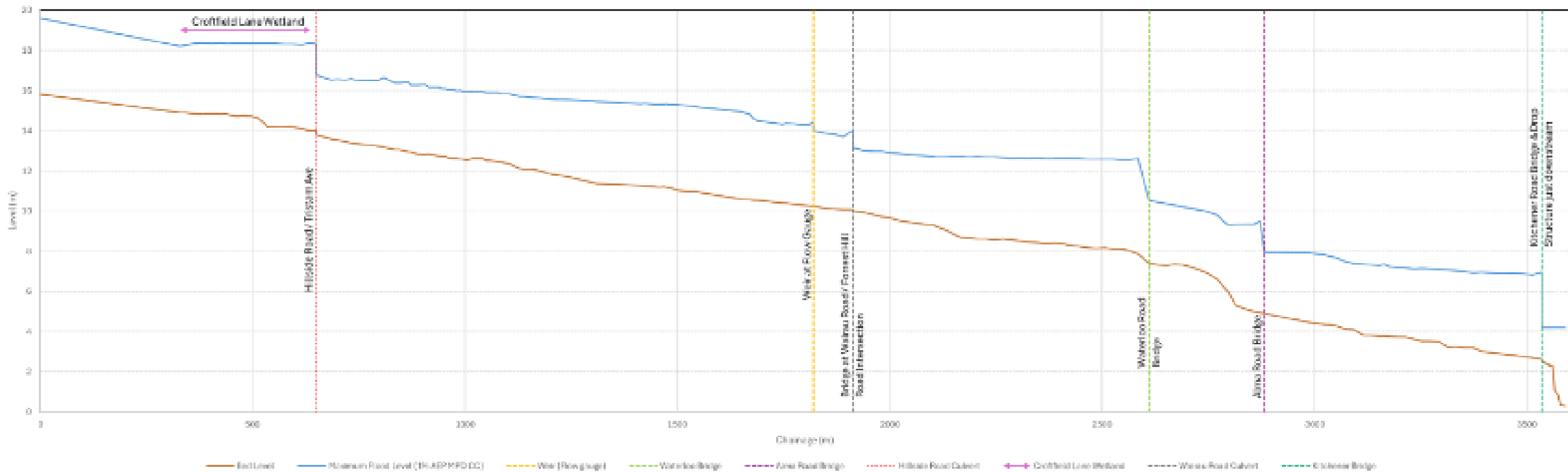
# Causes of Flooding – Man made



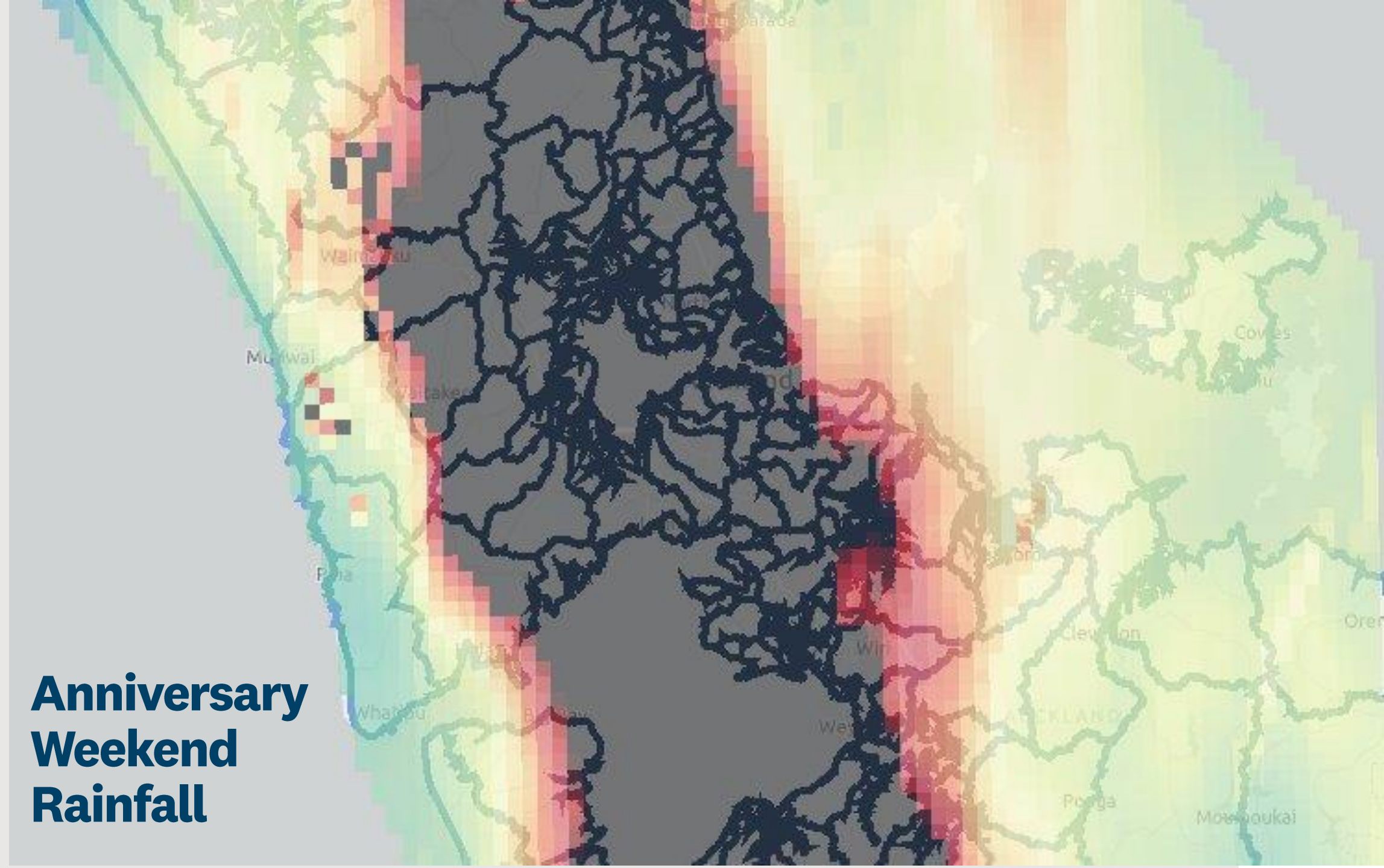




Long section from Link Drive Pond to Downstream of Kitchener Road Bridge



# Anniversary Weekend Rainfall





## Effects felt across the whole region

**7,000**  
properties  
affected by  
flooding

**4,500**  
households  
needed  
assistance

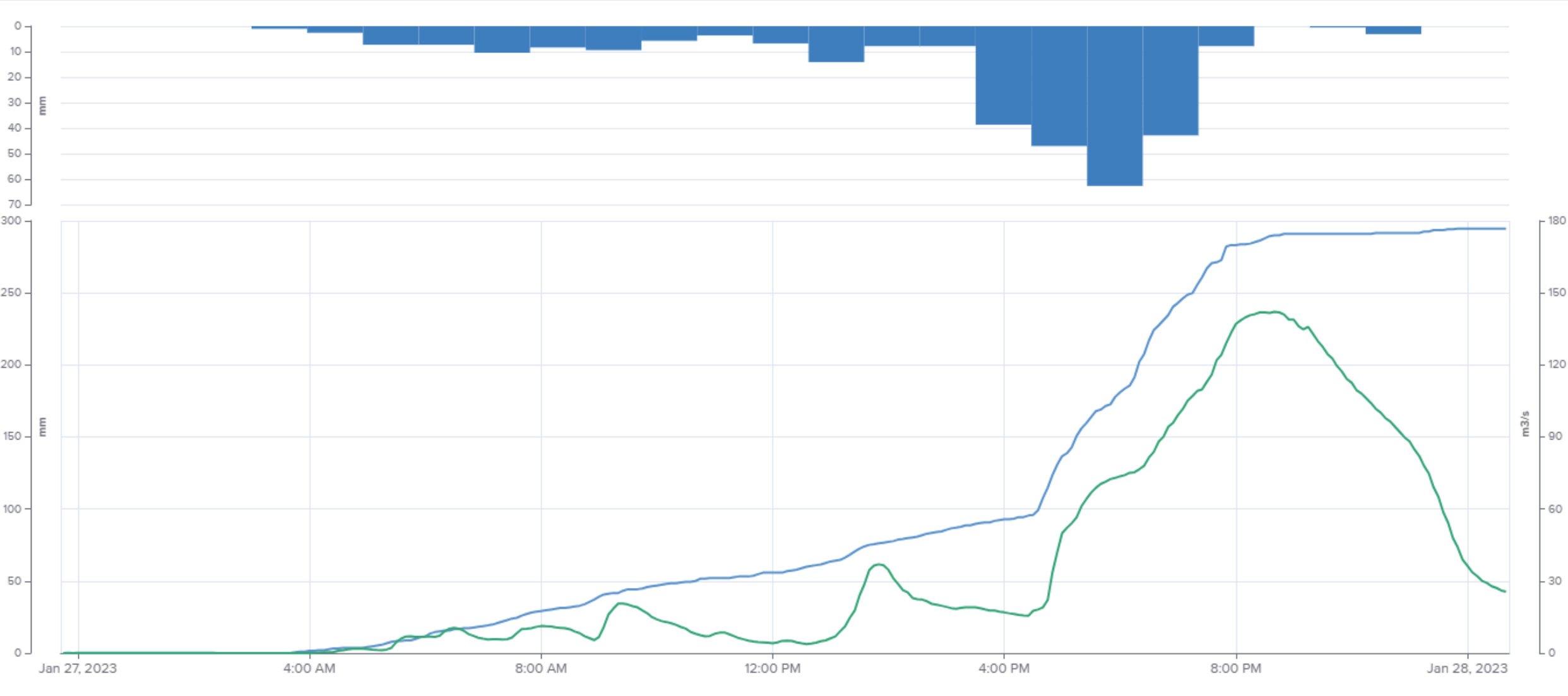
**600**  
people needing  
accommodation

**4**  
fatalities





# Anniversary Weekend Rainfall



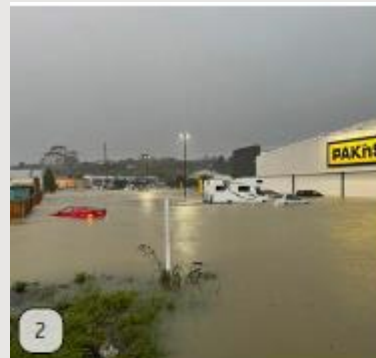




## Auckland floods: Second man found dead in Wairau Valley

Auckland reporter

January 28, 2023 · 11:25am

[Share](#)


### Factories at a standstill

 NSTA  
7/2/67

## HEAVY LOSS IN WAIRAU FLOOD

The failure of Takapuna City and Waitemata County Councils to agree on a flood protection scheme for the Wairau Valley has again meant heavy flood losses for industry in the area.

The Wairau Creek, swollen by two days of heavy rain, flowed over its banks and into nearby factories, causing thousands of pounds of damage.

### 2FT OF WATER

One manufacturer, Mr A. F. W. Mason, had two feet of water in his factory on Friday morning.

Creek within its boundaries. The County had already cleared its part.

Mr Souter said if nothing was not done soon, his council would take action under the Land Drainage Act to have Takapuna's stretch of the creek cleared.

"We want to maintain good relations with Takapuna," the

also works committee chairman, Mr H. D. A. Murdoch, had visited the Wairau Valley at the height of Thursday night's flooding.

"I spoke to residents of the county at midnight, amid deep swirling muddy water," Mr Thomas said.

"They complained bitterly that drains in the county were



# What's been done – Recovery Process

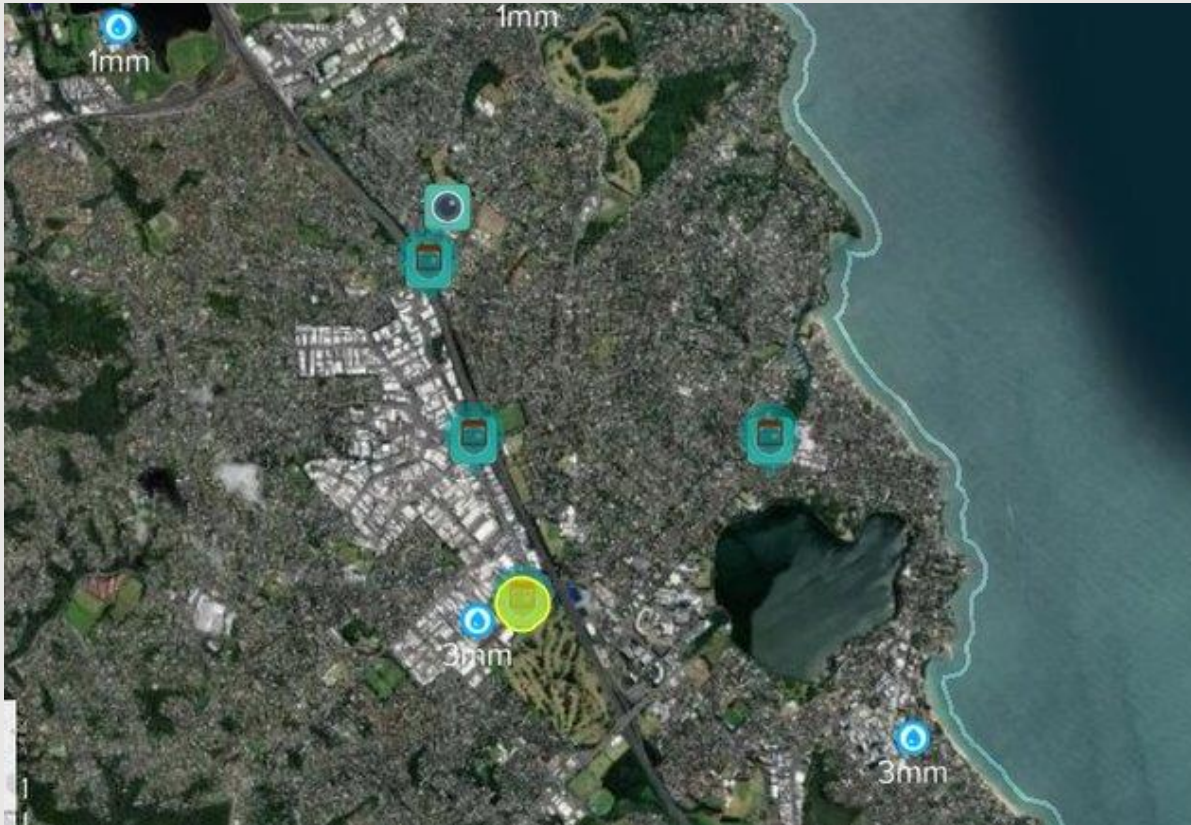


- Tāmaki Makaurau Recovery Office established and Recovery Plan developed
- 37 Navigators on the ground supporting impacted whānau
- Making Space for Water programme established and underway incl. flood resilience community outreach
- 1200 homes expected to be Category 3 – exceeding the initial estimate of 900.





# Stormwater network improvements



- More monitoring cameras installed
- Increased catch-pit cleaning
- New water quality treatment device installed
- Plans to dredge watercourse at Bryan Byrnes Reserve, desilting of Link Drive pond
- Other increased maintenance expected from early 2025





## Wairau Catchment

**18km**  
of  
waterways  
in 1,300ha

**52,000**  
people call  
Wairau  
home

**\*124**  
Category 3  
properties

**1 of 12**  
potential  
areas for  
blue-green  
networks

\*Auckland region = 78% categories completed





# Progress on categorisation

Total number registered in the Auckland region – 3529

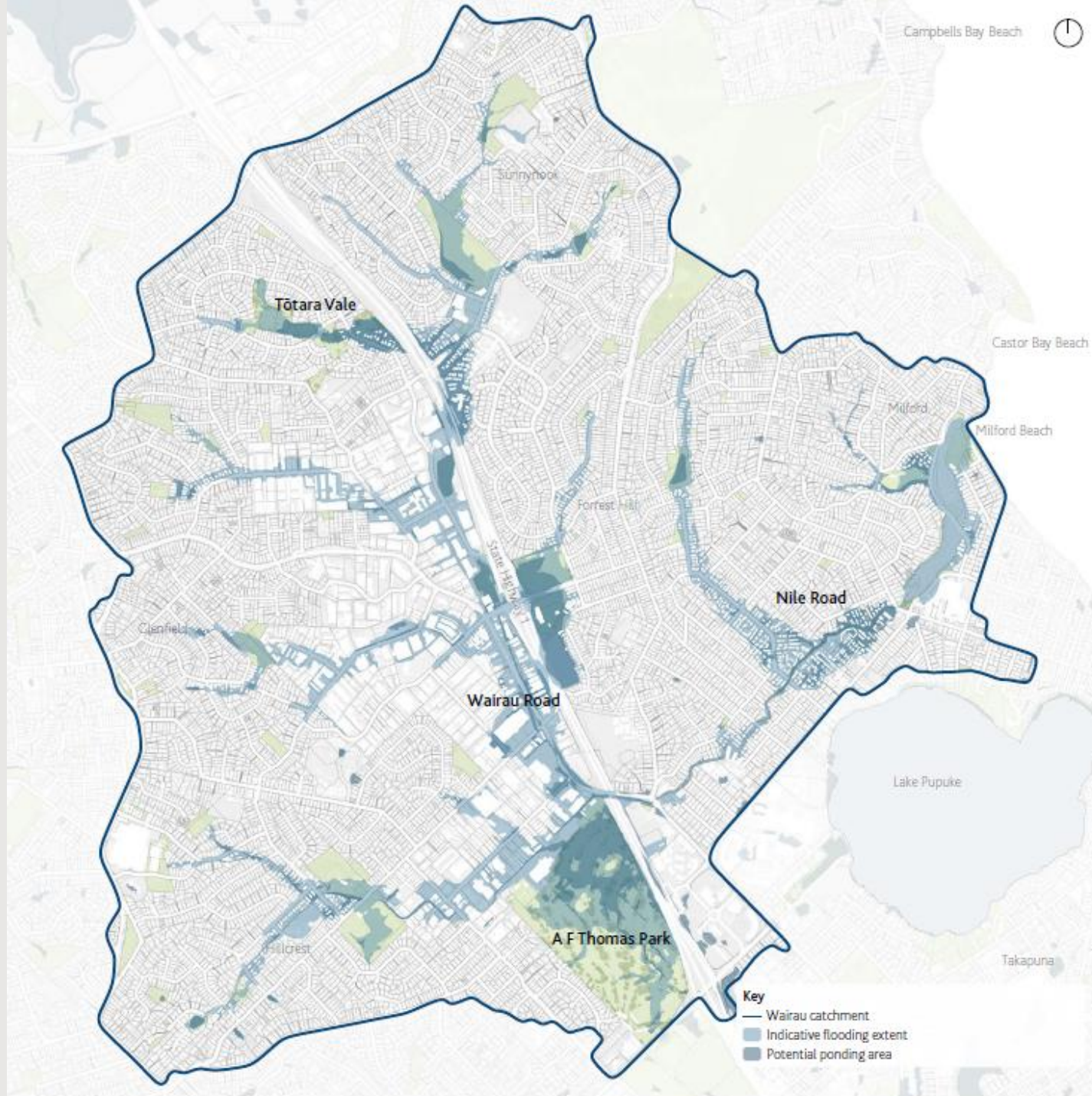
Suburb	Total registrations	Categories confirmed	Cat 1	Cat 2P	Cat 3
Milford	216	139	36	2	101
Forrest Hill	22	14	8		6
Totara Vale	21	18	6		12
Sunnynook	19	8	3		5
Hillcrest	18	13	10	3	
Wairau Valley	12	1	1		

Auckland region = 78% categories completed





# Catchment Flood extents





# Potential Catchment Interventions

## What we have been working on:

- Flood modelling and optioneering
- Project feasibility, phasing and prioritisation

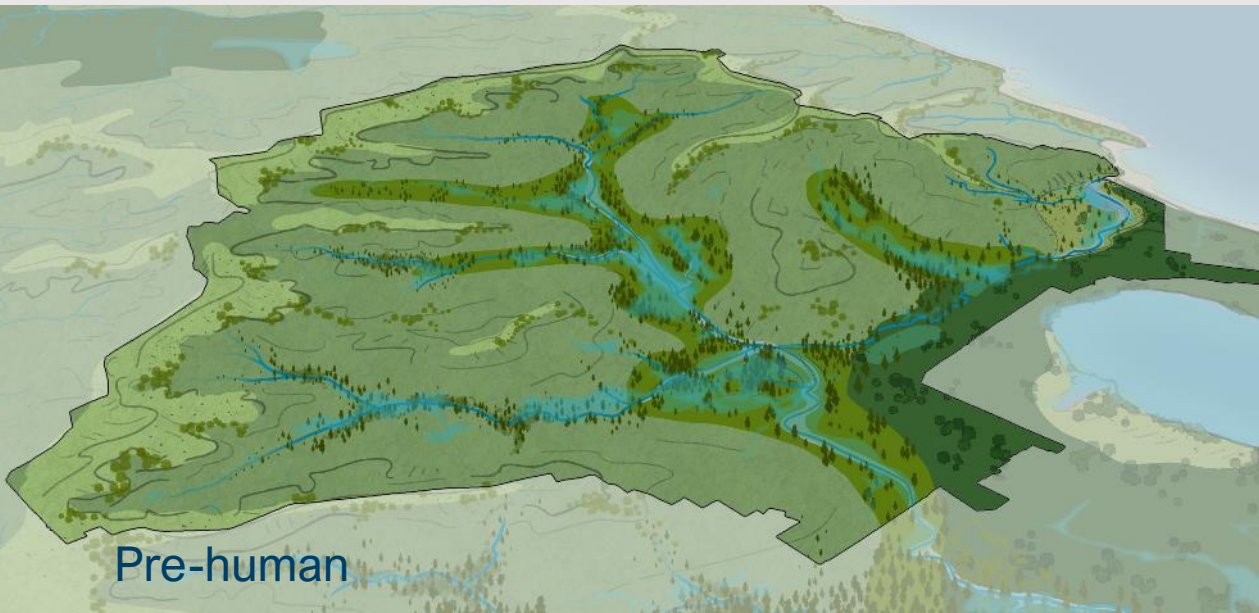
## Moving forward:

- Project design to be undertaken in future in collaboration with local community



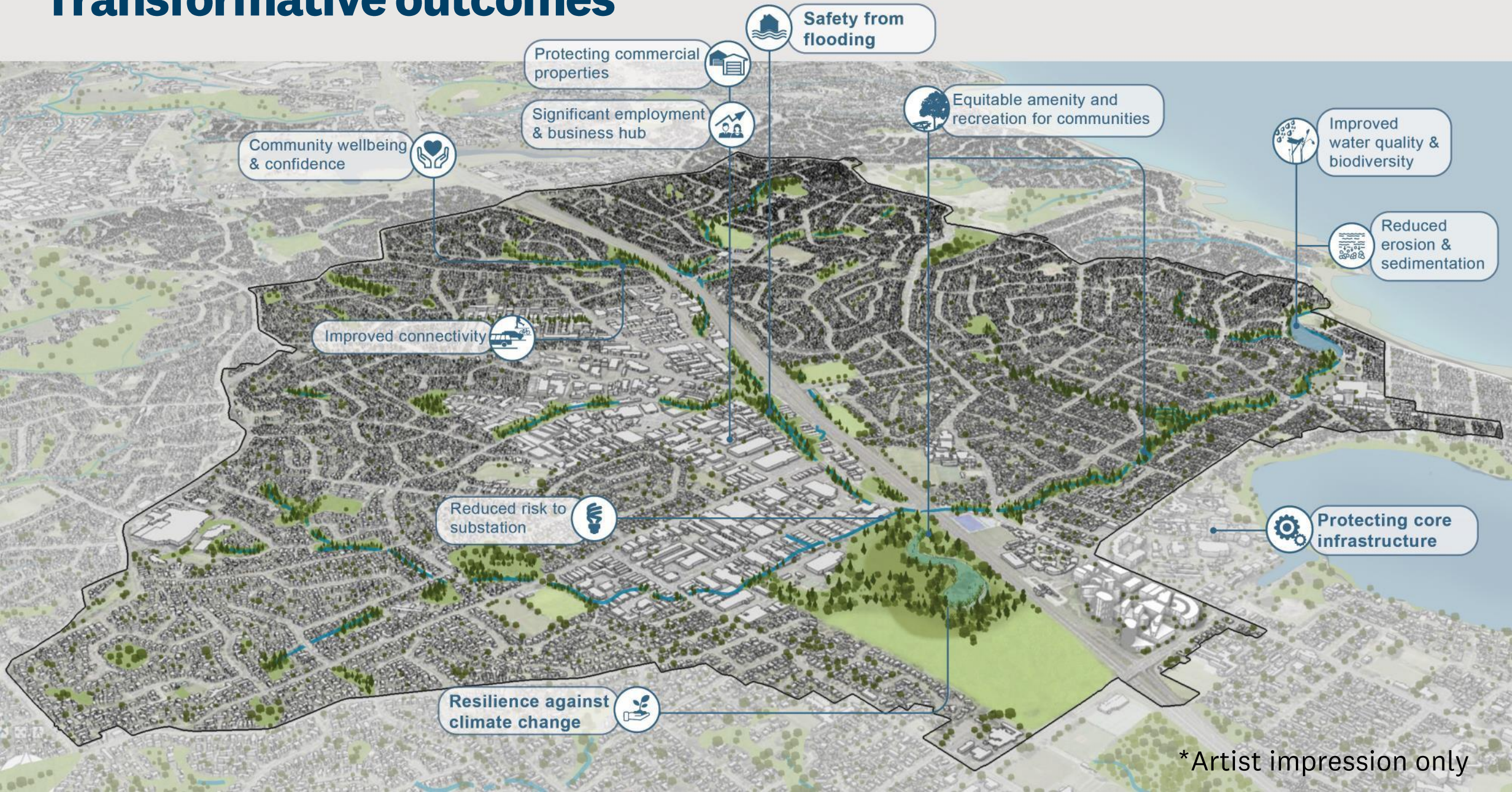


# The Evolution of Wairau





# Transformative outcomes



\*Artist impression only

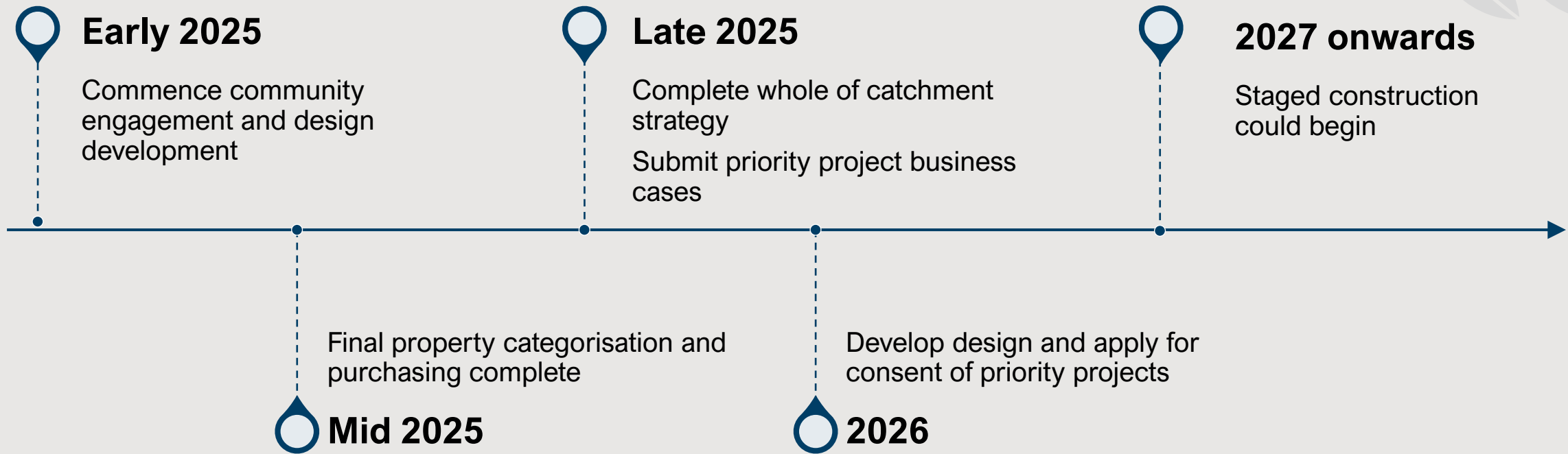


# Te mahi tahi me te taiao—working with nature





# Next steps – Wairau Blue Green Network



## How to get involved



- Let us know what a thriving Wairau would require and look like (post-its on posters)
- Sign up to stay in touch:  
**[bluegreen@aucklandcouncil.govt.nz](mailto:bluegreen@aucklandcouncil.govt.nz)**
- Reach out to a navigator if you have specific questions about your property
- Get involved in future community events and feedback opportunities





## Wairau Estuary



1959 Aerial



2017 Aerial





# Wairau Catchment – Urban Contaminants



- ↑ **zinc** from vehicles (tyre wear) and roofs (galvanized steel)
- ↑ **copper** from vehicles (brake pads)
- ↑ other metals: lead (historic), cadmium (trace)
- ↑ hydrocarbons, PAHs (vehicles)

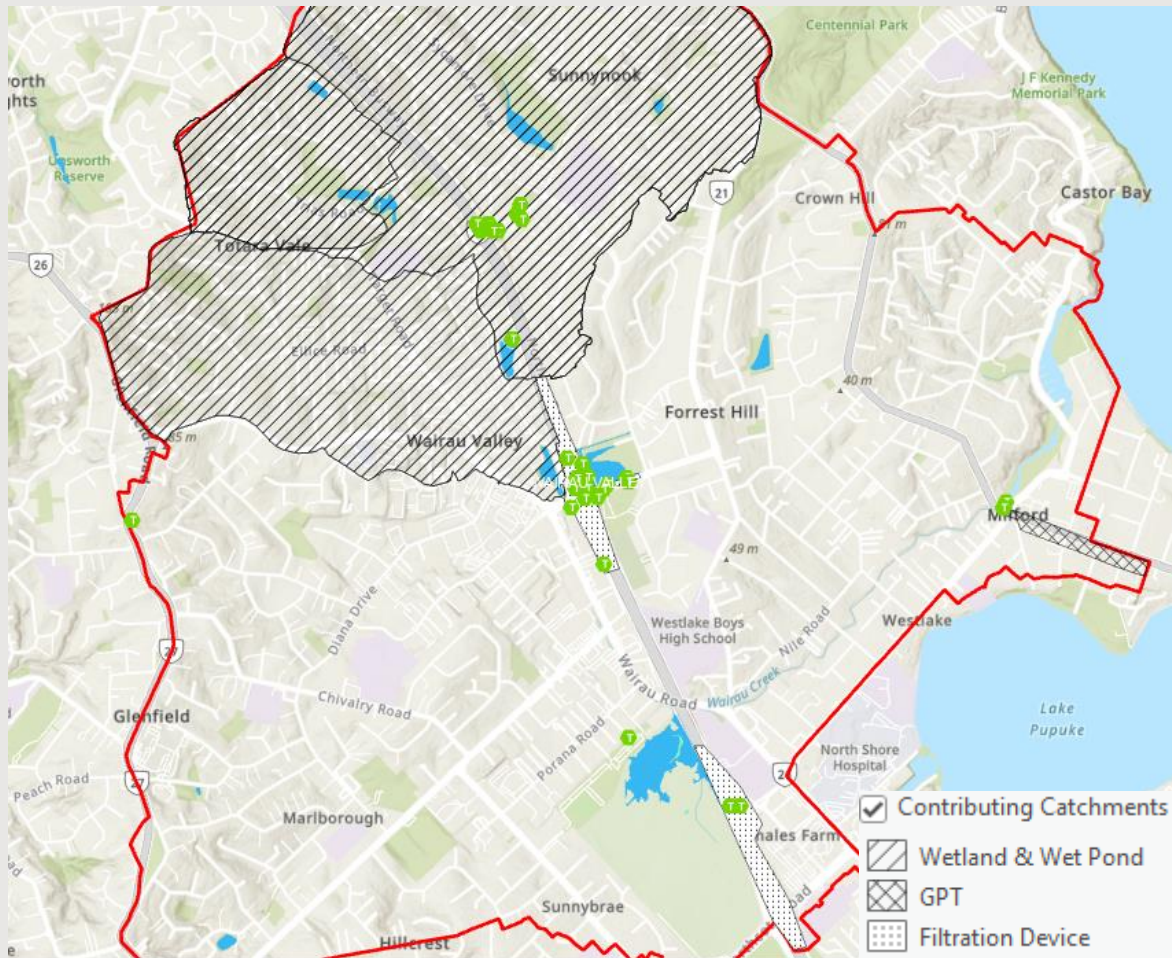
TSS (Fine sediment)	Copper	Zinc
1,041 ton/yr	29kg/yr	189 kg/yr





# Stormwater Treatment Devices

- 33 additional stormwater treatment devices (AC, NZTA)
- Ranging from debris screens, gross pollutant traps (GPTs) to cartridge devices
- Regular inspection & maintenance





# Q&A

December 2024

