

Disasters Avoided

The Awanui River Flood Management Scheme, New Zealand Kaitiāia Avoided a Flood Disaster in August 2022

- In July 1958, widespread flooding in Kaitiāia township involved one-meter deep standing waves along Main Street with a flow rate of 220 m³/s.
- Afterwards, the Awanui River Flood Management Scheme was implemented.
- In August 2022, with a flow rate of 320 m³/s—the largest flow on record since 1958—there was almost no flooding in Kaitiāia and no overtopping.

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Flood damage in Kaitiāia in July 1958 (left, courtesy Museum at Te Ahu) and a larger flood without damage in August 2022 (right, courtesy Peter Wiessing).



In July 1958, widespread flooding in Kaitiāia township, New Zealand involved one-meter deep standing waves along Main Street with a flow rate of 220 m³/s. After these floods, Kaitiāia undertook a series of flood mitigation measures, mostly straightening of the river's meanders and building stopbanks. These works allowed more floodwater to pass through the township, with faster velocities, higher scour, and more erosion.

In 2005, NRC took over the Awanui River Flood Management Scheme from the Far North District Council (FNDC). In 2007, a calculated 1-in-30 year return period flood overtopped the stopbanks and flooded Oxford Street and other low-lying areas. The following year, NRC initiated a programme to upgrade to a calculated 1-in-100 year return period flood.

In 2018, NRC's Long-Term Plan adopted the NZ\$15.1 million eight-year Awanui Scheme Upgrade. In 2020, NRC received around NZ\$8 million of Shovel Ready money from Kānoa, reducing the payback from 30 years to 12 years. August 2022 witnessed flooding at 320 m³/s without overtopping, a flow rate of almost 50% more than in 1958.

Most recently, in July 2025, NRC completed one of the last upgrades to the Scheme, The Quarry Road Bridge Extension. In reality, the Scheme will never be "finished". NRC still has two more projects to complete this Upgrade: the Lower Whangatane Spillway stopbank setback ("Room for the River") and the Donald Road Bridge Upgrade. Continual monitoring and changes will ensure flood disasters avoided.