OFFICIAL

Wai 3325, #A107(a)

ANNEX A

Author: Ruka, J. H. P. T. (2025).

Kaipara is prone to frequent flooding and erosion due to its low-lying geography, extensive river systems, large tidal fluctuations, and flat floodplains (Kaipara District Council, 2024). These factors combined with heavy rainfall, storm surges, and climate change (sea level rise) increase the risk of both flooding and coastal erosion.

This poster visually highlights the cultural and ecological areas of significance to Māori threatened by both coastal erosion and flooding. Sites include marae, urupā, historic points and marine reserves. These areas are vital for maintaining cultural heritage and biodiversity among marine ecosystems. The degradation and loss of these areas negatively effects both cultural identity and the health of marine ecosystems.

During my internship at GNS Science, I explored how sediment grain size influences the stability of coastal areas, and observed firsthand the accelerated rate at which erosion occurs via LiDAR methods. As a Marine Biology and Kaitiakitanga student this experience deepened my understanding of how coastal dynamics directly impact both Māori communities and marine ecosystems, making it a key consideration in addressing the environmental challenges faced by regions like Kaipara.

- Kaipara District Council Urupā
- Community Owned Urupā
- Marae Locations
- Areas of significance to Māori
- Historic Site Points
- Flood Susceptible Land
- Erosion Prone Land
- Rivers
- Marine Reserve
- Marine Mammal Sanctuaries (DOC)

Referenes & Data Sources:

Department of Conservation. (2024). Marine Mammal Sanctuaries.
Kaipara District Council. (2024). Areas of Significance to Māori.
Kaipara District Council. (2024). Cemetery Locations.
Kaipara District Council. (2024). Natural Hazards. https://www.kaipara.govt.nz/hazards
LINZ (2025)
Mitchell, J.S., et al. (2012).
NIWA Chart, Miscellaneous Series No. 92
Te Puni Kōkiri. (2024). Marae of Aotearoa.
Undersea New Zealand, 1:5,000,000.

RECEIVED
Waitangi Tribunal
14 May 25
Ministry of Justice
WELLINGTON

GNS SCIENCE TE PŪ AO

VICTORIA UNIVERSITY OF WELLINGTON TE HERENGA WAKA

MacDiarmid Institute