Mapping New Zealand’s Seafloor
5th South and West Pacific Regional Mapping Community Meeting

New Zealand Hydrographic Authority
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New Zealand Hydrographic Authority
Area of charting responsibility
More than bathymetry

Bathymetry

Seafloor backscatter

Water column backscatter
Partnerships for greater outcomes

Bathymetry Map

The shape and depth of the seafloor was determined by multibeam echo-sounder sonar technology over 43,300 hectares by the National Institute of Water & Atmospheric Research (NIWA) and Discovery Marine Limited (DML).

These data collectively illustrate the seafloor diversity and complexity over the entire expanse of this iconic coastal area. A sun-illuminated digital elevation model produced from a 2 metre gridded surface was overlain on hillshaded relief to improve the depth visualisation. Depth contours are also shown. Click on the map to get the water depth at that point.

Tory Channel/Kura Te Au

The powerful tidal forces have scoured out the main channel which ranges in depth from 42-67 metres. The marginal bays are much shallower and have shoals across their entrances.

Endeavour Inlet

Steep sided with depths ranging from 50m at the entrance to 35 m near the heads of the bay. The inlet shoals steadily at its head to a very shallow and expansive tidal platform.
This index enables you to identify freely available digital bathymetric surface models owned by Land Information New Zealand (LINZ), as well as models that contain third-party data. This data provides a 3-dimensional model of the surface of the seafloor. These surface models have been created by LINZ from publicly funded single- or multi-beam data collected in the New Zealand coastal area since early 1998. The polygons in the index show the extent of these gridded data models, and include descriptive information, such as the age and quality of the data.

The gridded surface models are not downloadable from the LINZ Data Service, but can be provided to you on request. Please refer to the LINZ Bathymetric Index Data Dictionary for further information about the attributes of this dataset, and formats in which the data is available.

For more information about the data layers displayed, please visit:
- NZ Bathymetric Surface Model Index
- NZ Pacific Bathymetric Surface Model Index
- Antarctic Bathymetric Surface Model Index
- NZ Bathymetric Surface Model Index (Third-Party)

https://www.ncei.noaa.gov/maps/ihodcdb/
Marine scientific research

Each year New Zealand receives applications from people from other countries seeking to undertake marine scientific research (MSR) in the New Zealand Territorial Sea, Exclusive Economic Zone (EEZ) and Continental Shelf.

The New Zealand Ministry of Foreign Affairs and Trade on behalf of the New Zealand Government receives and manages MSR applications from New Zealanders seeking to undertake MSR in waters under the national jurisdiction of other States, and people from other countries seeking to undertake MSR in New Zealand's Territorial Sea, EEZ and Continental Shelf.

Information about applying for consent to carry out MSR in New Zealand's waters can be found on the Ministry for Foreign Affairs and Trade website (link is external).

Consents granted to applicants to undertake MSR usually contain

https://www.linz.govt.nz/guidancemarine-informationmarine-geospatial-informationmarine-scientific-research
Transiting vessels – New Zealand’s EEZ

• Now easier to collect **bathymetric data** during transit in NZ’s EEZ
• Marine science research application **not required**
• Toitū Te Whenua Land Information New Zealand authorised to request vessels to activate their seafloor mapping systems during transit
• Submit data to NZ for inclusion in **GEBCO grid**
• If your vessel undertakes transits of NZ’s EEZ please contact **MSR-NZ@linz.govt.nz** for further information and a request to collect bathy data
Mapping NZ 2025

Earth observations

- Land mapping (elevation)
- Coastal mapping
- Sea mapping (depths)

Joining land & sea

Vision:
Seamless mapping across land & sea
Coastal Mapping

Hihi, Northland – topographic LiDAR and MBES bathymetry
Thank you!