



Toitū Te Whenua
Land Information
New Zealand

HYPLAN

New Zealand Long-Term Prioritised Hydrographic Survey Plan

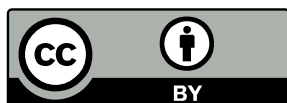
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Preface

The following document is certified by the National Hydrographer. This is a living document which is revised on an annual basis and as such the priority and extents of the regions and areas are subject to change. The final specifications will be contained in the Survey Work Request for each region listed in the following document as and when they are scheduled.

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Revision history

Date	Version	Revision	Author	Description
18/04/2017	1	0	SC	Published version
5/03/2020	1	1	SC	Status of surveys updated Completed survey areas indicated Future priority survey areas identified
17/08/2020	1	2	AW	Updated with new LINZ branding Status of surveys updated Completed survey areas indicated Future priority survey areas identified
18/01/2021	2	0	AW	Addition of Sub-Antarctic Islands Updated survey areas
17/08/2022	2	1	AW	Status of surveys updated Completed survey areas indicated

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Glossary

There are several technical terms used in this document.
An explanation of these is given below.

Term	Explanation
Region	A Collection of Areas within geographical grouping
Area	Sub-Region defining survey extents
AIS	Automatic Identification System
EEZ	Exclusive Economic Zone
FY	Financial year
GIS	Geographic Information System
HYPLAN	New Zealand Long-term Prioritised Hydrographic Survey Plan
LINZ	Land Information New Zealand
MFAT	Ministry of Foreign Affairs & Trade
Maritime NZ	Maritime New Zealand
NZDF	New Zealand Defence Force
NZHA	New Zealand Hydrographic Authority
SOLAS	Safety of Life at Sea
SWPRHP	South-West Pacific Regional Hydrography Programme
TBA	To be announced
TBC	To be confirmed

1 Introduction

Land Information New Zealand (LINZ), the New Zealand Hydrographic Authority (NZHA) presents the second edition of New Zealand's long-term national hydrographic survey plan – HYPLAN.

The NZHA is the national authority responsible for the provision of hydrographic services to ensure New Zealand meets its obligations under Chapter V of the International Convention for the Safety of Life at Sea (SOLAS).

LINZ's mandate for the provision of hydrographic services was set out by Cabinet in 1996 and includes; the purchase, management and specification of hydrographic and bathymetric services; the safe passage of maritime vessels through New Zealand's territorial seas and area of charting responsibility through ongoing maintenance and delivery of publicly available hydrographic and bathymetric information; and the delivery of nautical charting in support of the management of New Zealand's marine resources and the protection of the marine environment.

HYPLAN has been developed in consultation with Maritime New Zealand (Maritime NZ), and is aligned with LINZ's mandate and long-term outcomes, as well as its strategic objectives. LINZ will seek partnering opportunities to enable the collection of broader datasets which can be used to inform decisions on resilience to natural events, management of marine resources and protection of the marine environment and further scientific research, as well as ensuring better value for money and quality of service.

This document is the result of detailed analysis of the adequacy and accuracy of New Zealand's nautical charts. Using an evidenced led, risk-based approach, areas and levels of hydrographic risk were identified and subsequently prioritised to develop this long-term hydrographic survey plan.

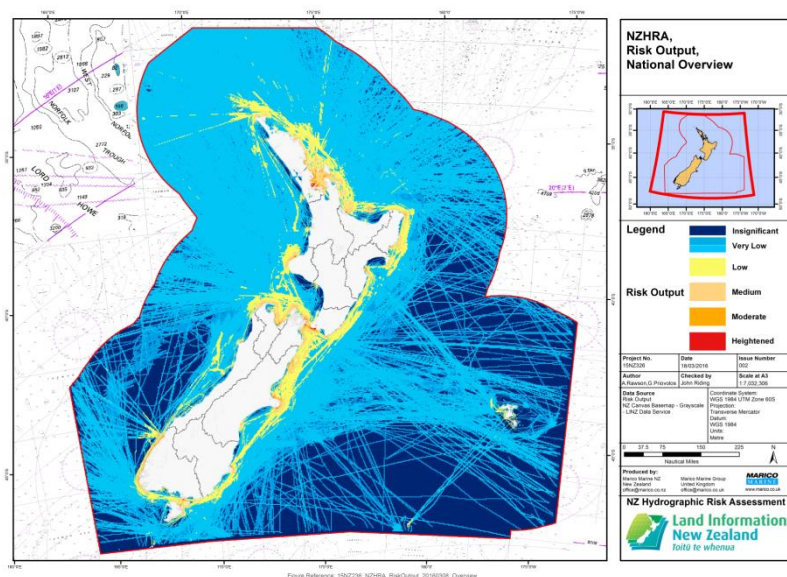
HYPLAN will be reviewed on an annual basis in consultation with Maritime NZ and other key stakeholders.

For more information on partnering opportunities please contact HydroSurvey@linz.govt.nz.

2 Hydrographic Risk Assessments

In 2015 the NZHA undertook an evidenced based risk assessment of maritime traffic within New Zealand waters to identify areas of risk. The risk assessment was based on the novel methodology developed during the South-West Pacific Regional Hydrography Programme (SWPRHP) with the Ministry of Foreign Affairs & Trade (MFAT). The methodology uses a Geographic Information System (GIS) based risk model of 39 layers with a level of risk assigned to each cell within the layer. The cell resolution varied from ports and harbours to the Territorial Sea limit, to the Exclusive Economic Zone (EEZ), with greater granularity in the ports & harbours where vessel movement becomes more critical. The layers included environmental, cultural, and economic factors, as well as chart quality information and seabed characteristics.

The GIS was used to analyse each layer against one years' worth of actual vessel track information taken from vessel Automatic Identification System (AIS) data along with other geospatial datasets to produce a simple heat map based on comparative risk levels. The risk criteria, used to build the model, were



developed to reflect the NZ maritime environment in terms of traffic profile as well as environmental, cultural, and economic consequences, which are considerably different to those represented in the SWPRHP risk model.

The results of the risk assessment are available on the [LINZ website](#) as four documents:

- National Overview
- North Island
- South Island
- Synopsis

The comparative risk results for the North and South Islands are given overleaf. These present the areas of Heightened risk and Positive chart benefit in a geographical order and not in priority order. The NZHA and Maritime NZ have worked closely together to review the results and develop this long-term plan for hydrographic surveying and chart improvement.

The GIS implementation of the methodology allows for future reassessment with new AIS data and forecasting for anticipated changes to vessel traffic and port and harbour developments.

North Island

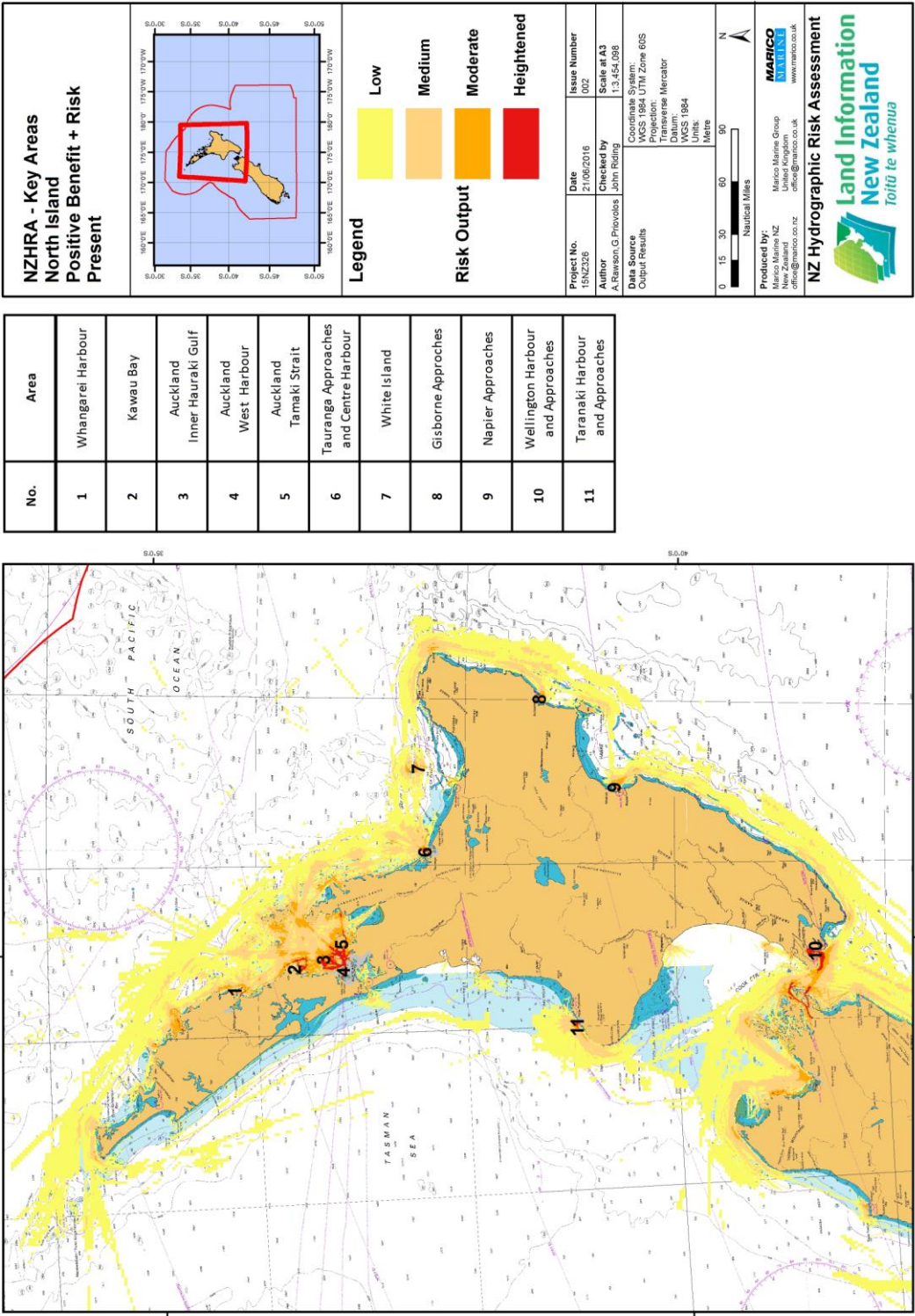
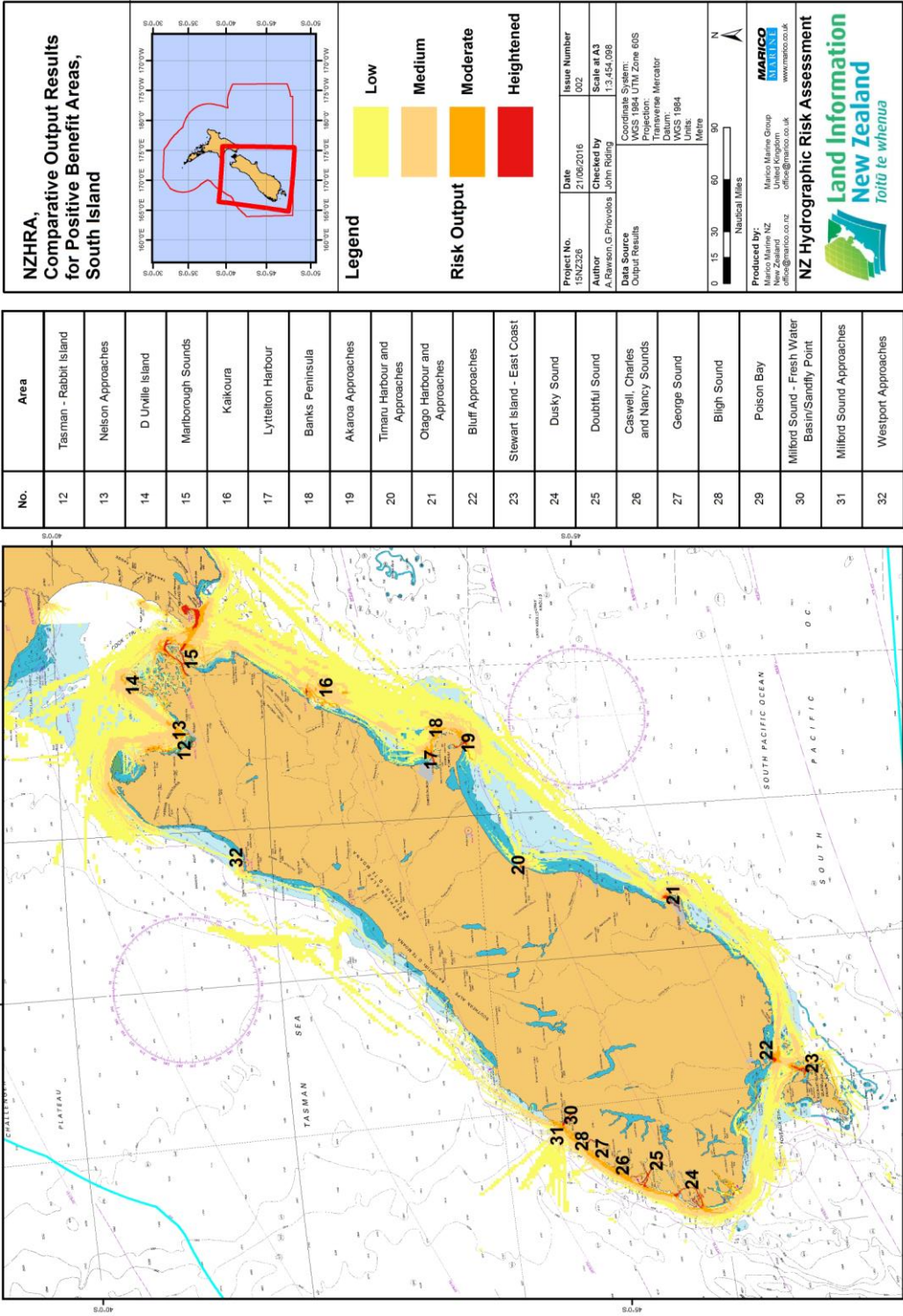


Figure Reference: 15NZ236_NZHRA_NorthIsland_20160421_ComparativeResults

South Island



In 2019 LINZ completed a further risk assessment of New Zealand’s Sub-Antarctic Islands; the Auckland Islands, Campbell Islands, Bounty Islands, the Antipodes Islands and Snares

Islands. Using a similar approach to the New Zealand model, several environmental factors were included recognising the islands unique ecological landscape for an array of distinct endemic species. The risk assessment is available on the LINZ website.

An overview of the risk assessment results is presented below.

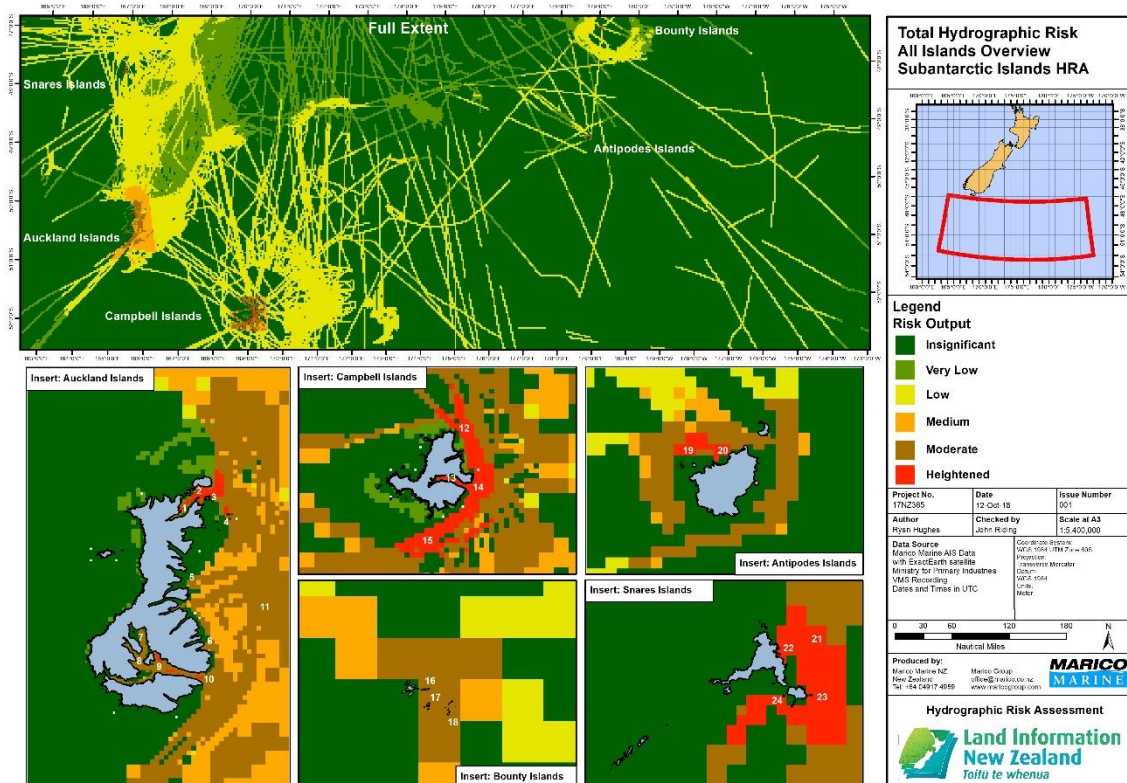


Figure Reference: 17NZ385_RMC_All_Island_Total_Summary_Overview_v1

Of the areas indicated above, it should be noted that modern, hydrographic surveys with full seafloor coverage, have been carried out at; the Auckland Islands (2015); Bounty Islands (2005); and the Antipode Islands (2005). Further surveying is not planned for these islands.

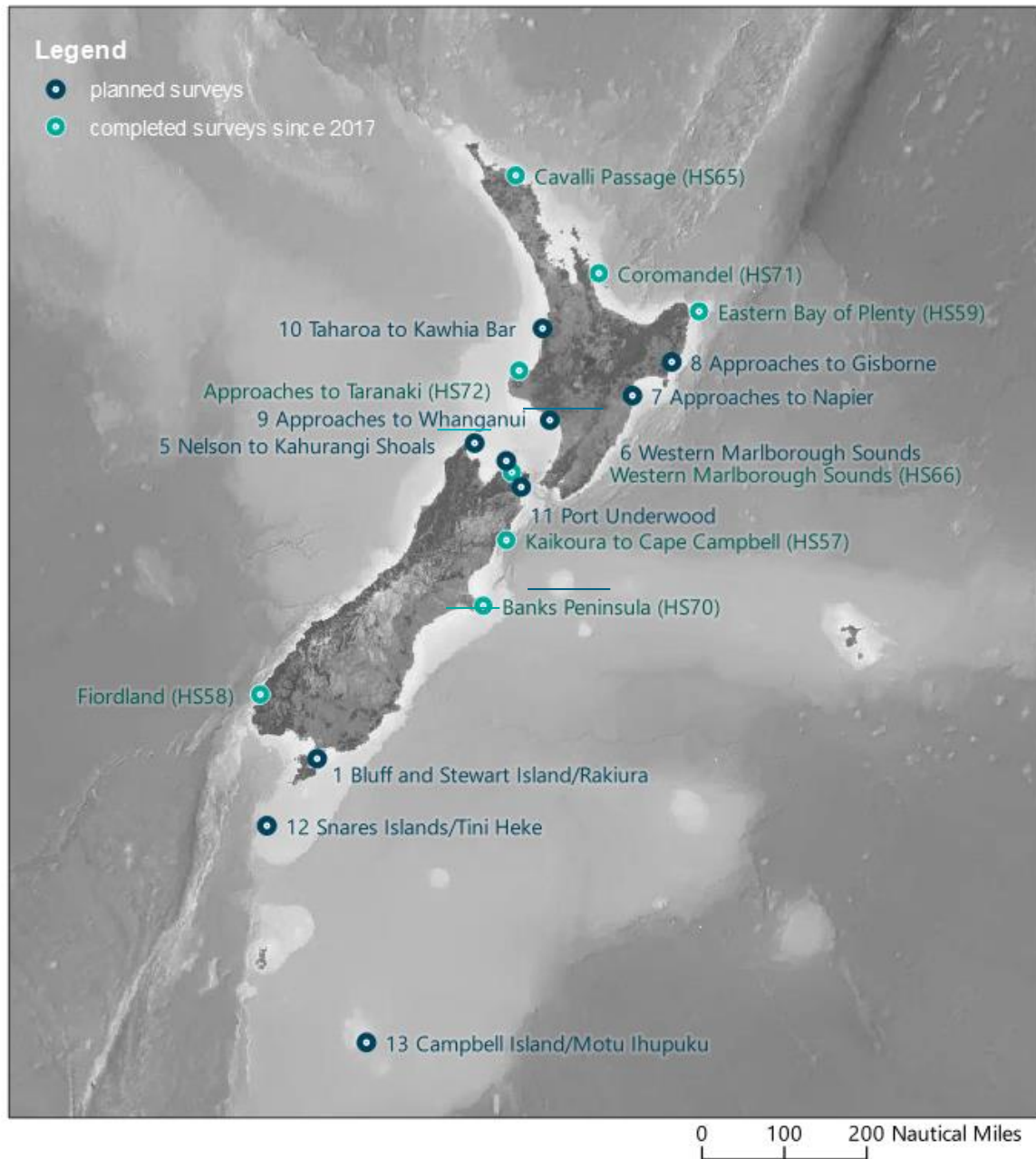
3 Prioritised hydrographic surveys

Sixteen regions were identified for survey work in the 1st Edition of HYPLAN, issued April 2017. This latest edition removes those regions completed since 2017 and includes areas of the Sub-Antarctic Islands. Each area is outlined in their order of priority on the following pages.

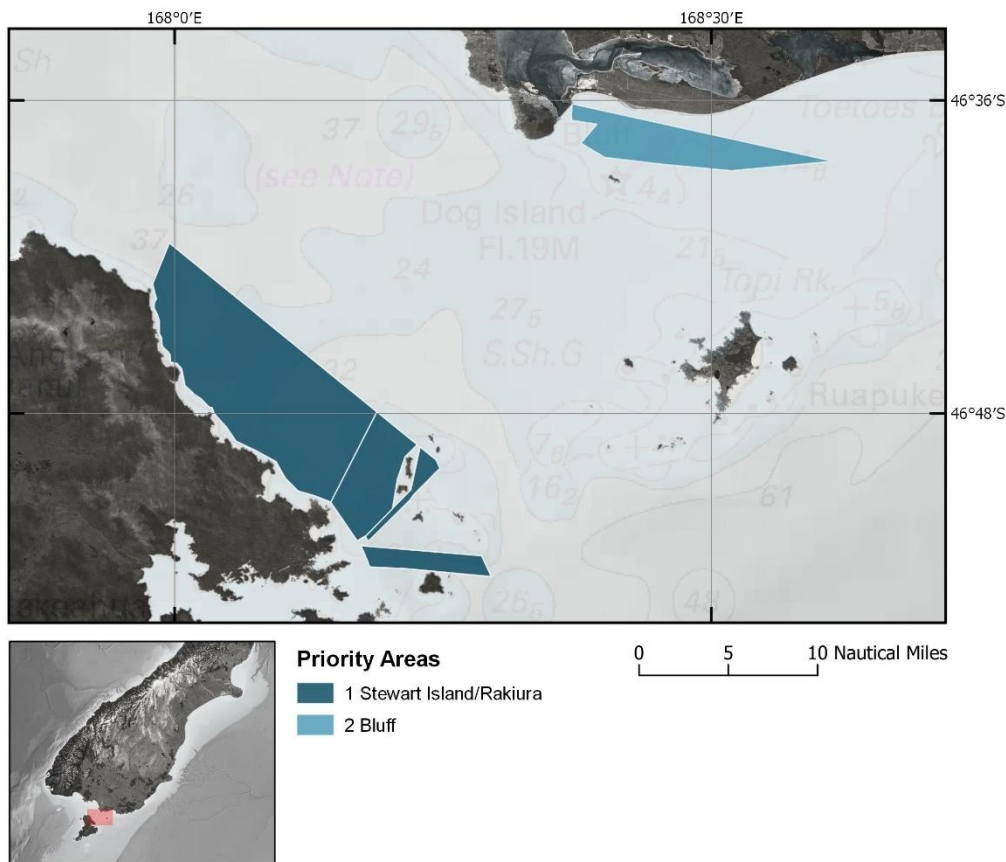
Bathymetric surfaces from previous surveys are discoverable through the [LINZ Data Service](#). All raw and processed data, including reports, are available on request to [LINZ](#).

Priority	Region	Status
1	Bluff and Stewart Island/Rakiura	Completed 2022
2	Banks Peninsula	Completed 2022
3	Approaches to Port Taranaki	Completed 2021
4	Coromandel	Completed 2021
5	Nelson to Kahurangi Shoals	In progress 2022-23
6	Western Marlborough Sounds	In progress 2022-23
7	Approaches to Napier	Proposed 2022-23
8	Approaches to Gisborne	Proposed 2023-24
9	Approaches to Whanganui	TBA
10	Taharoa to Kawhia Bar	TBA
11	Te Whanganui / Port Underwood	TBA
12	Snares Islands/Tini Heke	TBA
13	Campbell Island/Motu Ihupuku	TBA

Overview

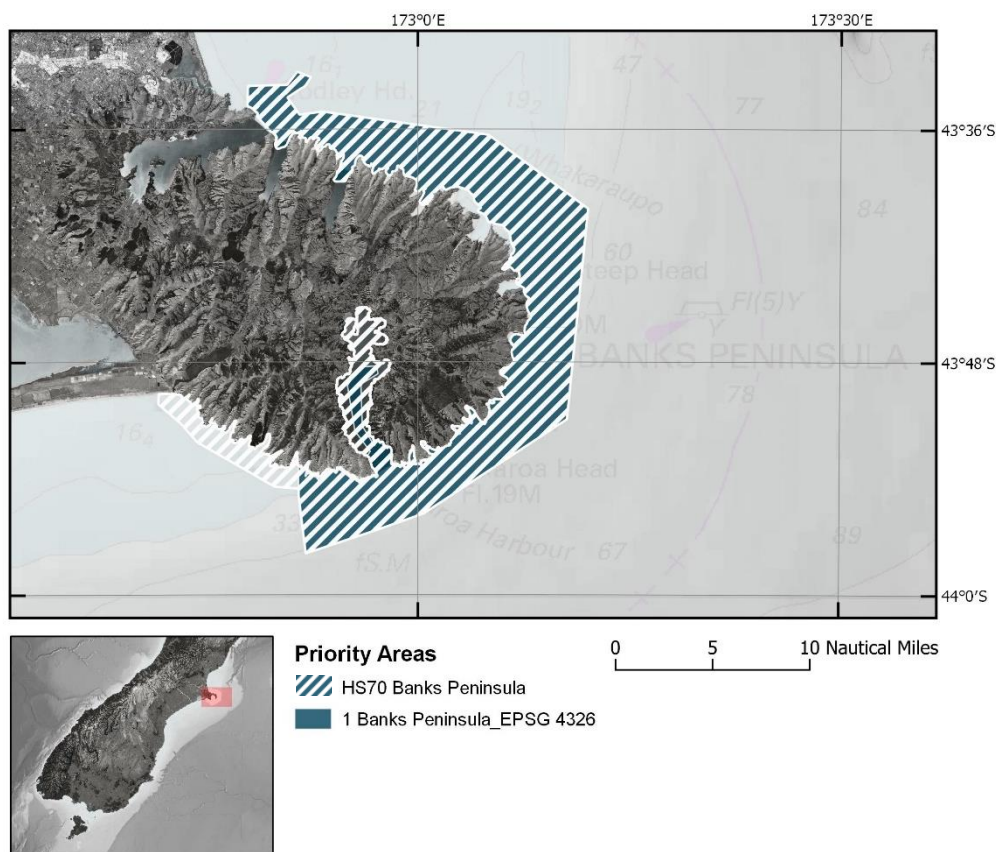


3.1 Region 1: Bluff and Stewart Island/Rakiura



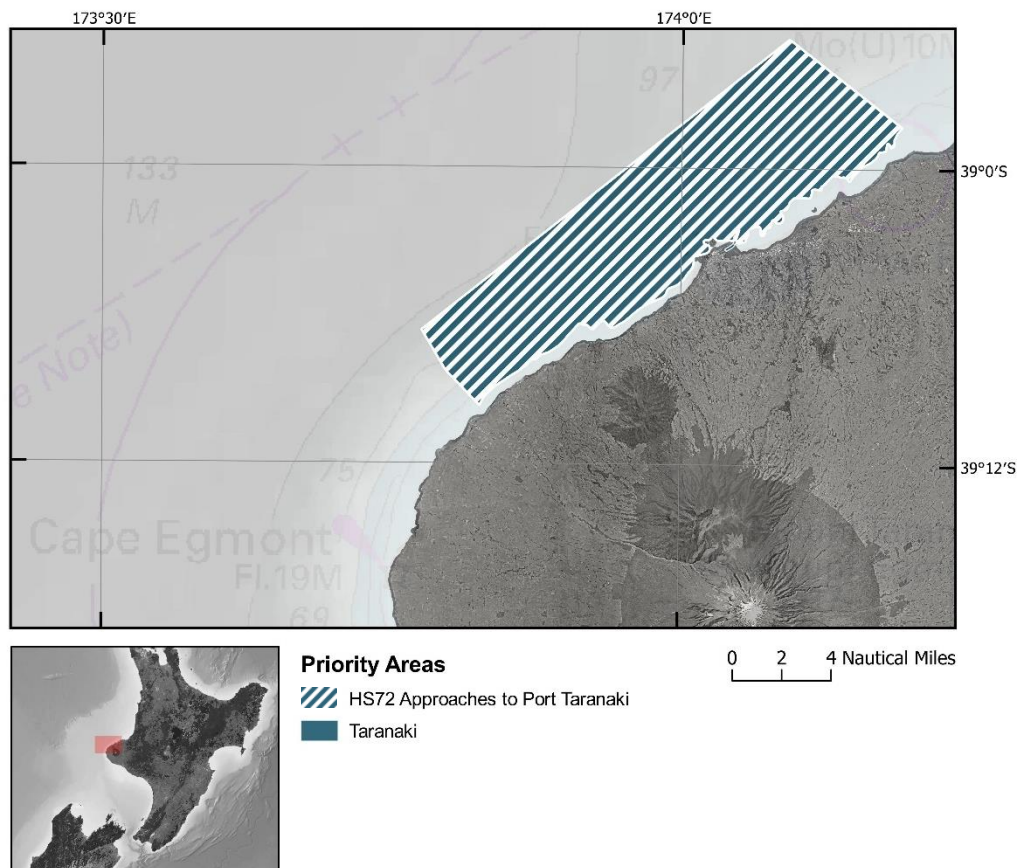
Status	Completed 2022
Purpose	To facilitate safe navigation and anchorage of tourism, recreational and coastal shipping. Extended due to partnership with: Ngāi Tahu
Task	Conduct a modern survey of the coast and identify navigational dangers.
Shipping	Cruise ships, tourist operators, recreational vessels, bulk carriers, Bluff/Stewart Island ferry and local fishing vessels.
Considerations	Exposed coastal environment, operating at entrance to busy port
Charted ZOC	B & C
Charted survey age	>30 years
Charts affected	NZ 68, NZ 69, NZ 76, NZ 681, NZ 6821, NZ 6825, NZ 6912
FY prioritisation	FY 21/22
Area (km ²)	Bluff: 38 Stewart Island: 175

3.2 Region 2: Banks Peninsula



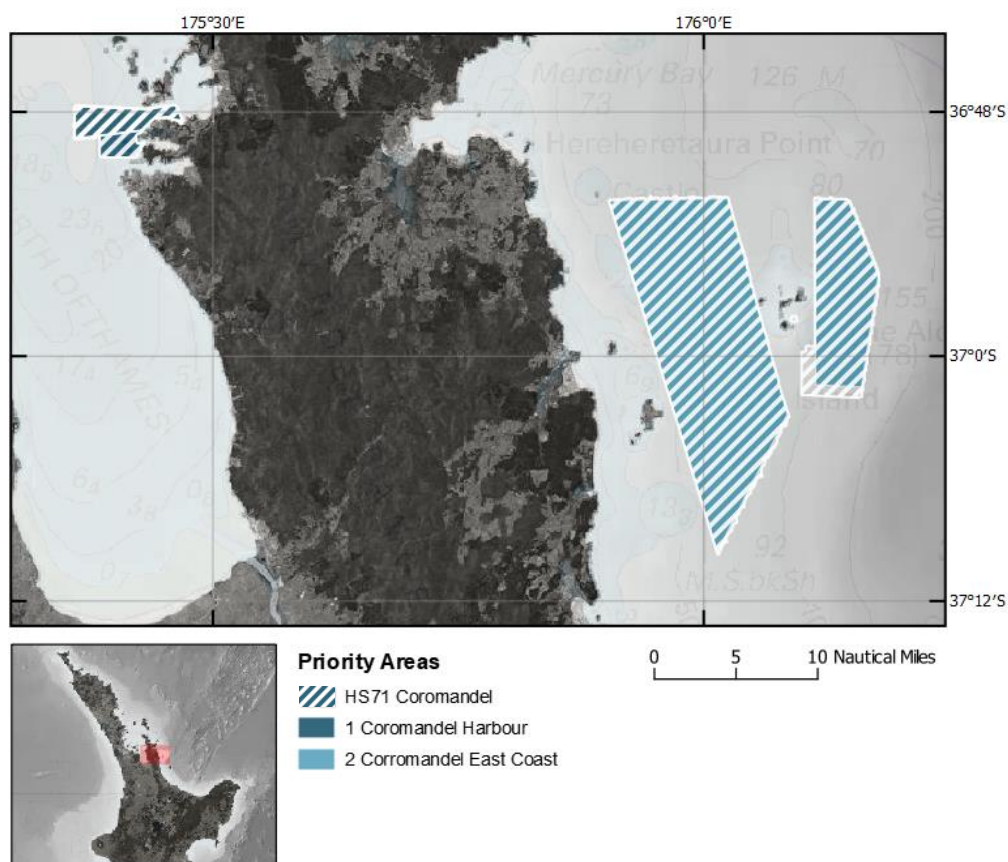
Status	Completed 2022
Purpose	To facilitate safe navigation of tourism, recreational and coastal shipping. Extended due to partnership with: ECan and DOC
Task	Conduct a modern survey of the coast and identify navigational dangers.
Shipping	Cruise ships, tourist operators, recreational vessels, bulk carriers, and local fishing vessels.
Considerations	Exposed coastal environment, operating at entrance to busy port
Charted ZOC	B, C & D
Charted survey age	10 to 20 years & >30 years
Charts affected	NZ 63, NZ 64, NZ 632, NZ 6321, NZ 6324
FY prioritisation	TBC
Area (km ²)	411

3.3 Region 3: Approaches to Port Taranaki



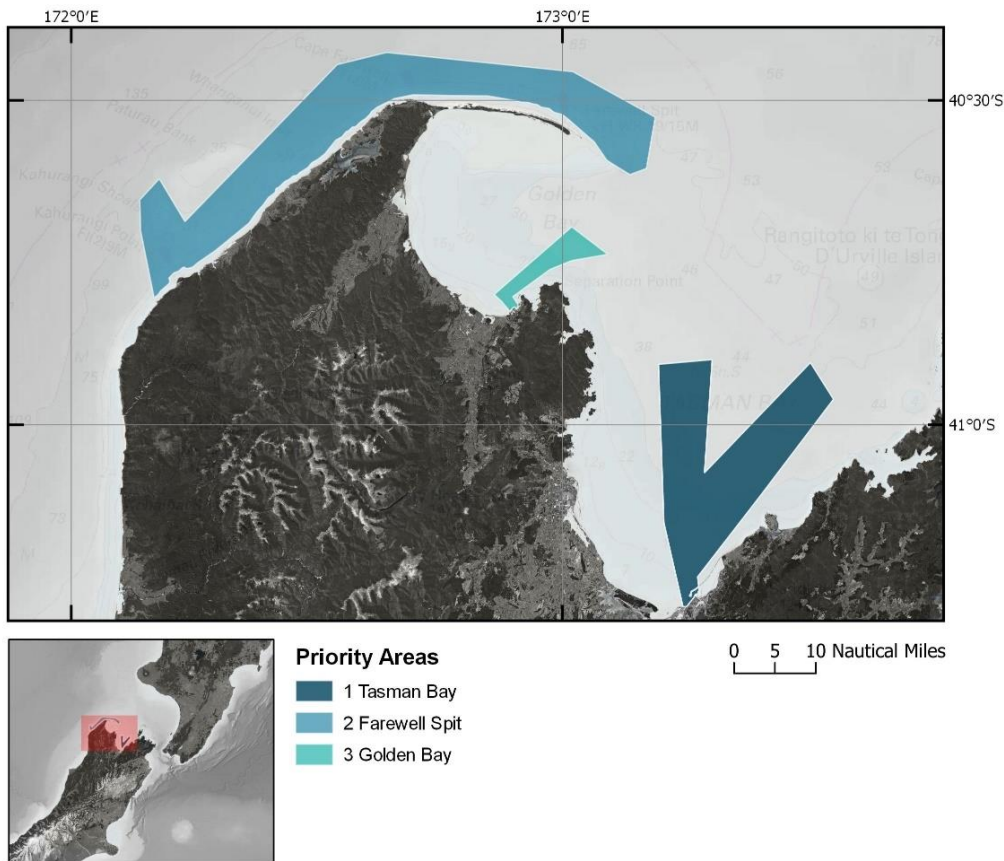
Status	Completed 2021
Purpose	To facilitate safe navigation and anchorage of coastal and fishing industry shipping. Extended due to partnership with: DOC
Task	Conduct a modern survey of the coast and identify navigational dangers.
Shipping	Bulk Carriers, Tankers, Oil & Gas Industry Support Vessels and local fishing vessels.
Considerations	Exposed coastal environment, operating at entrance to busy port
Charted ZOC	B & C
Charted survey age	30 to 50 years
Charts affected	NZ 43, NZ 45, NZ 48, NZ 443, NZ 4432
FY prioritisation	FY 20/21
Area (km ²)	324

3.4 Region 4: Coromandel



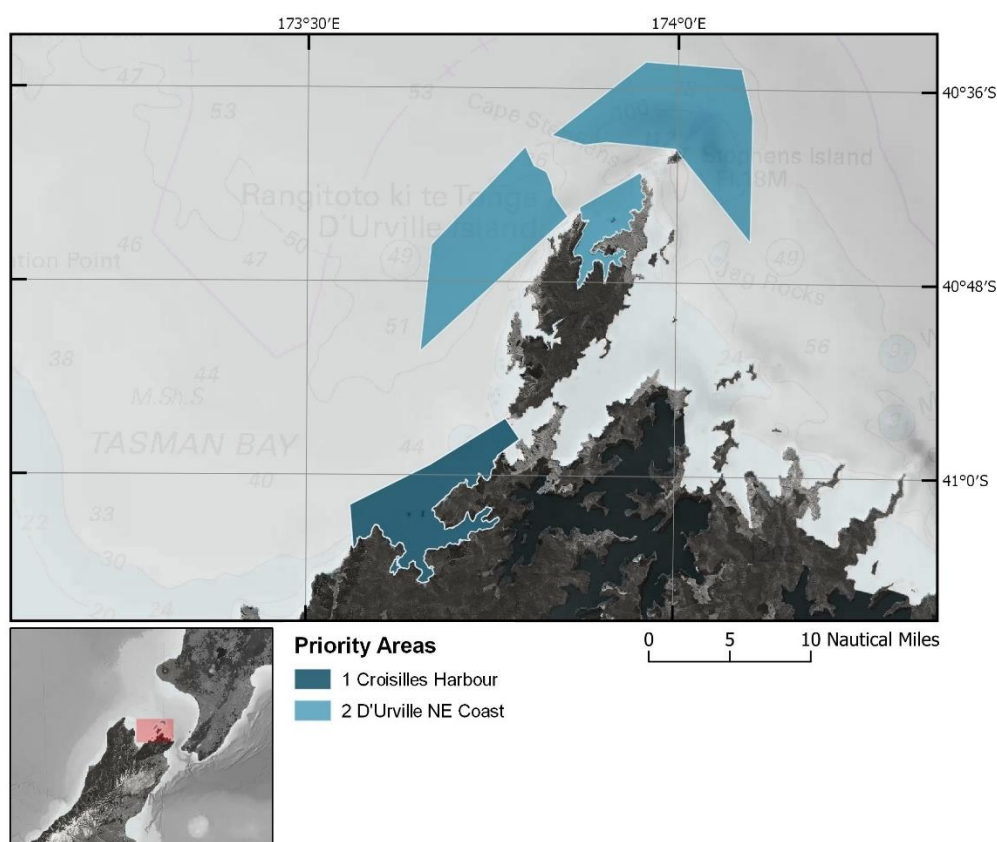
Status	Completed 2021
Purpose	To facilitate safe navigation of tourism, recreational and coastal shipping.
Task	Conduct a modern survey of the coast and identify navigational dangers.
Shipping	Small cruise ships <5m draught, tourist operators, recreational vessels, bulk carriers, tankers and ferry to Auckland.
Considerations	Exposed coastal environment on the W coast, shallow water operations around harbour
Chartered ZOC	B, C
Chartered survey age	>30 years
Charts affected	NZ 53, NZ 54, NZ 531, NZ 533, NZ 534, NZ 5318, NZ 5327, NZ 5328
FY prioritisation	FY 20/21
Area (km ²)	Coromandel Harbour: 27 Coromandel E Coast: 345

3.5 Region 5: Nelson to Kahurangi Shoals



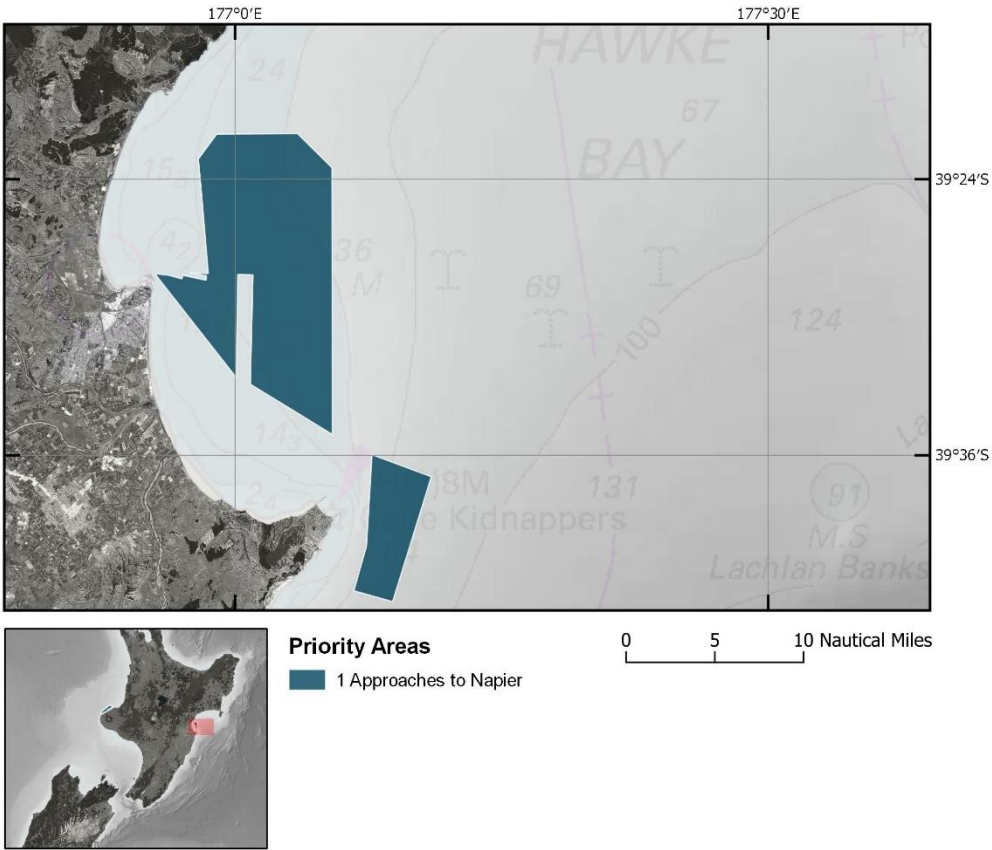
Status	In progress 2022-23
Purpose	To facilitate safe navigation of tourism, recreational and coastal shipping. Extended due to partnership with: Nelson City Council, Fisheries NZ and DOC
Task	Conduct a modern survey of the coast and identify navigational dangers.
Shipping	Cruise ships, tourist operators, recreational vessels, bulk carriers, and local fishing vessels.
Considerations	Farewell Spit exposed coastal environment, shallow water operations
Charted ZOC	B, C
Charted survey age	Within 5 years & >30 years
Charts affected	NZ 61, NZ 614, NZ 6144
FY prioritisation	FY 21/22
Area (km ²)	Tasman Bay: 555 Golden Bay: 69 Farewell Spit: 843

3.6 Region 6: Western Marlborough Sounds



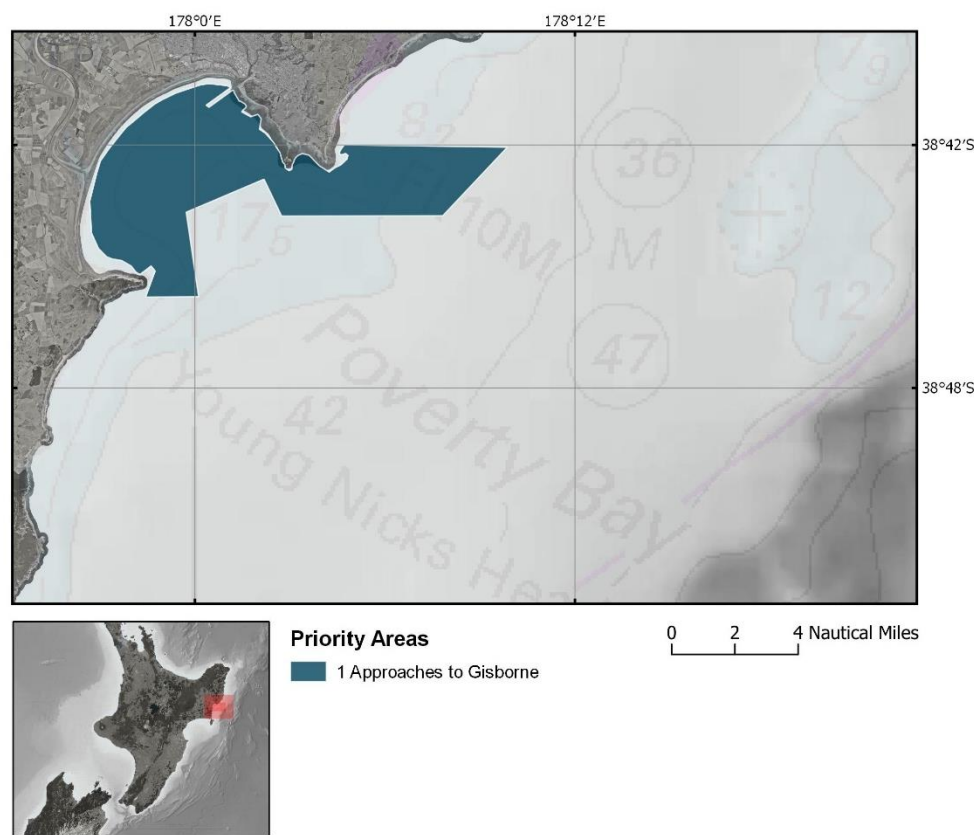
Status	In progress 2022-23
Purpose	To facilitate safe navigation of tourism, recreational and coastal shipping.
Task	Conduct a modern survey of the coast and identify navigational dangers.
Shipping	Cruise ships, tourist operators, recreational vessels, bulk carriers, tankers and local fishing vessels.
Considerations	Abundance of marine farms in Croisillies Harbour, outer areas exposed to Cook Strait weather, inner areas prone to run-off after rain events
Chartered ZOC	A2, B & C
Chartered survey age	November 2019 – July 2020, >20 years
Charts affected	NZ 46, NZ 48, NZ 463, NZ 61, NZ 614, NZ 615, NZ 6151, NZ 6152
FY prioritisation	FY 21/22
Area (km²)	Croisillies Harbour: 129 D'Urville NE Coast: 424

3.7 Region 7: Approaches to Napier



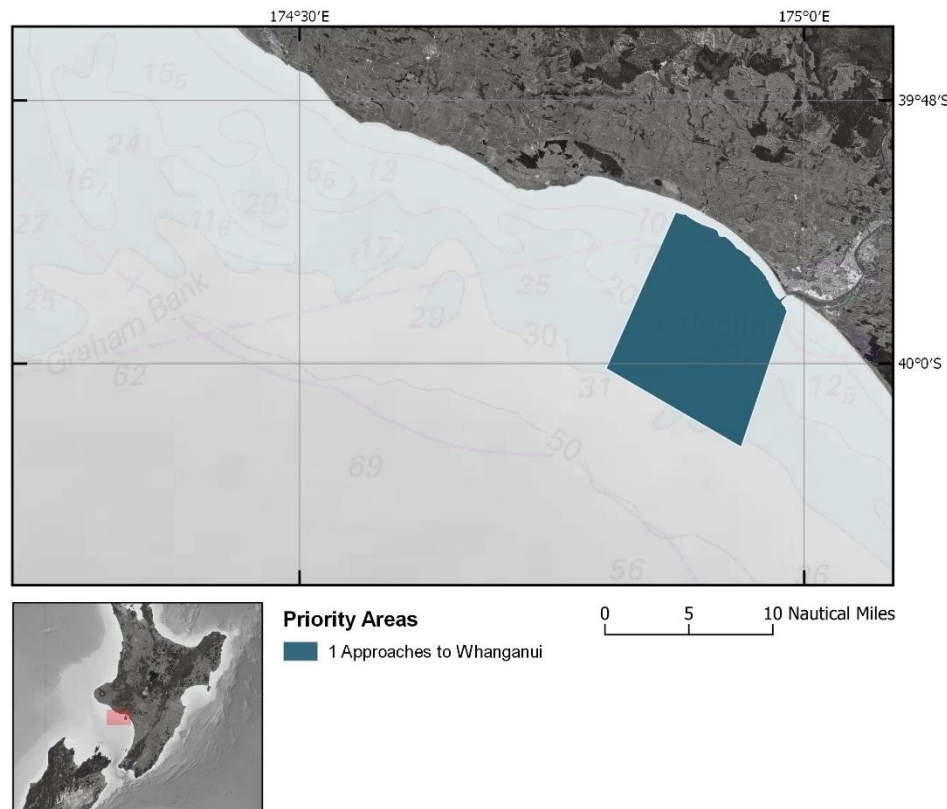
Status	Proposed 2022-23
Purpose	To facilitate safe navigation and anchorage of tourism, recreational and coastal shipping.
Task	Conduct a modern survey of the coast and identify navigational dangers.
Shipping	Cruise ships, recreational vessels, bulk carriers and tankers.
Considerations	Operating at entrance to busy port, shallow water operations
Charted ZOC	B
Charted survey age	>30 years
Charts affected	NZ 55, NZ 553
FY prioritisation	TBC
Area (km ²)	252

3.8 Region 8: Approaches to Gisborne



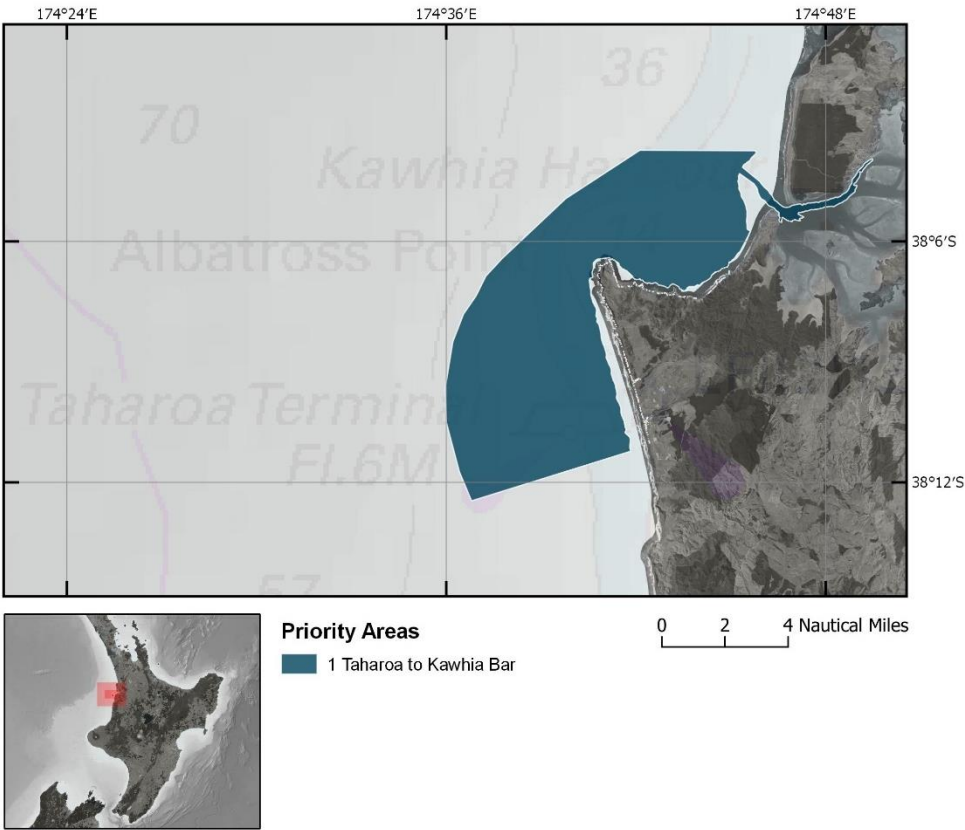
Status	Proposed 2023-24
Purpose	To facilitate safe navigation and anchorage of recreational and coastal shipping.
Task	Conduct a modern survey of the coast and identify navigational dangers.
Shipping	Recreational vessels, bulk carriers, and local fishing vessels.
Considerations	Operating at entrance to port, shallow water operations
Chartered ZOC	C
Chartered survey age	>30 years
Charts affected	NZ 55, NZ 5571
FY prioritisation	TBC
Area (km ²)	75

3.9 Region 9: Approaches to Whanganui



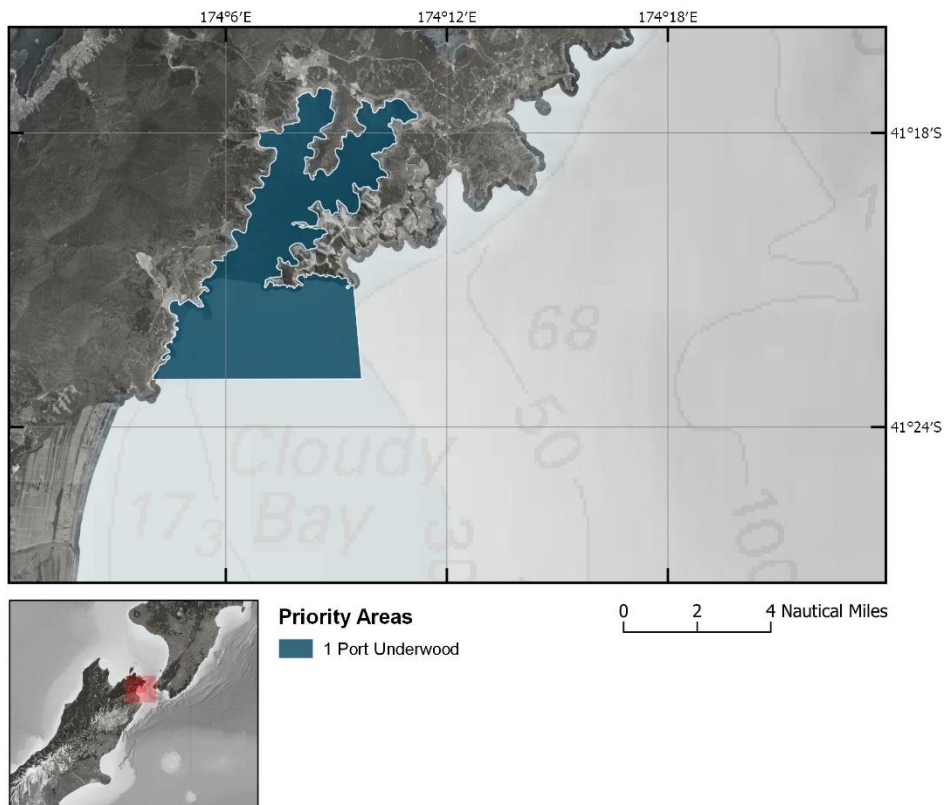
Status	TBA
Purpose	To facilitate safe navigation for coastal shipping.
Task	Conduct a modern survey of the coast and identify navigational dangers.
Shipping	Recreational vessels, bulk carriers, and small commercial fishing
Considerations	Shallow water operations
Charted ZOC	B, C
Charted survey age	>20 years
Charts affected	NZ 45, NZ 4541
FY prioritisation	TBA
Area (km ²)	176

3.10 Region 10: Taharoa to Kawhia Bar



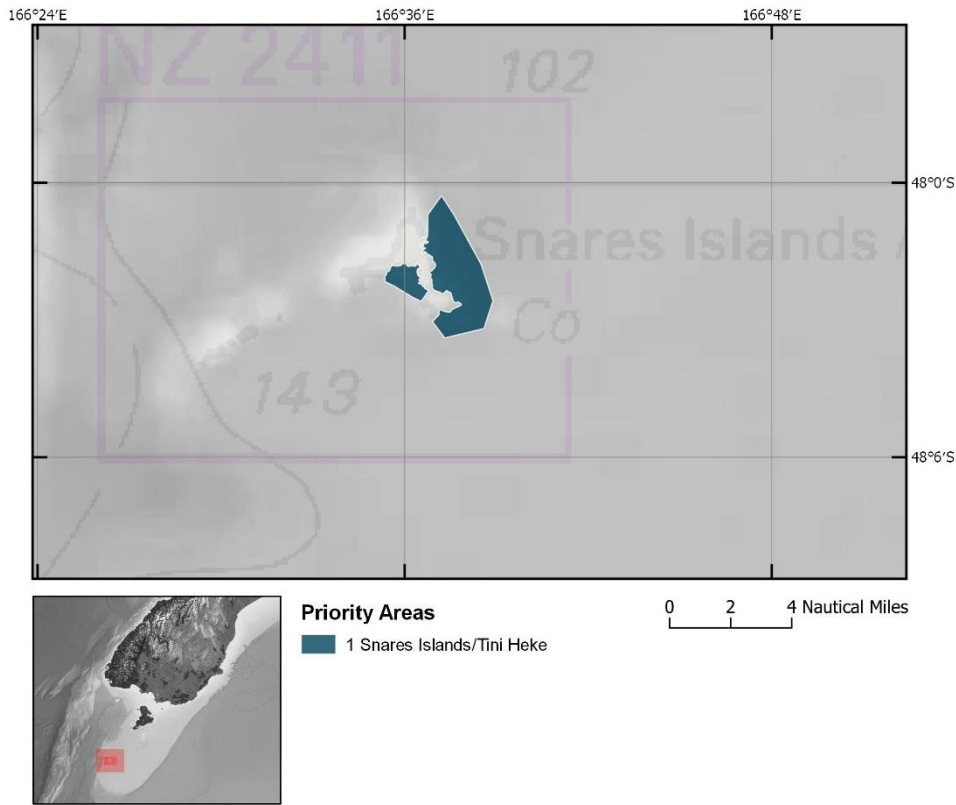
Status	TBA
Purpose	To facilitate safe navigation and anchoring of recreational, coastal shipping and local fishing.
Task	Conduct a modern survey of the coast and identify navigational dangers.
Shipping	Recreational vessels, bulk carriers, and local fishing vessels.
Considerations	Shallow water operations
Chartered ZOC	B, C
Chartered survey age	>30 years
Charts affected	NZ 43, NZ 4423, NZ 4424
FY prioritisation	TBA
Area (km ²)	119

3.11 Region 11: Te Whanganui / Port Underwood



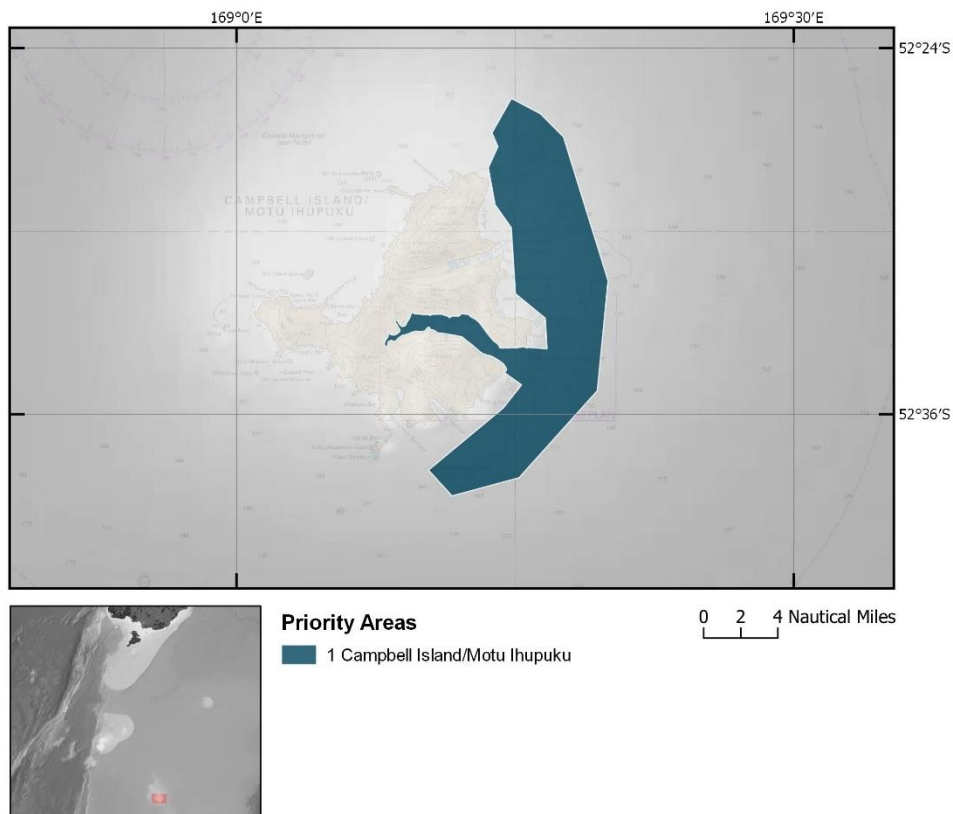
Status	TBA
Purpose	To identify areas of significant changes to the seafloor following 7.8 magnitude earthquake of November 2016 and facilitate safe navigation; and partner with Ministry for Primary Industries to map changes to seabed habitats.
Task	Conduct a modern survey of the coast to identify navigational dangers and collect scientific datasets.
Shipping	Fishing and recreational users.
Considerations	Dangers to navigation may exist in coastal strip close to shore, numerous marine farms
Charted ZOC	B
Charted survey age	>30 years
Charts affected	NZ 46, NZ 615, NZ 6212
FY prioritisation	TBA
Area (km2)	48

3.12 Region 12: Snares Islands/Tini Heke



Status	TBA
Purpose	To facilitate safe navigation.
Task	Conduct a modern survey of the coast and identify navigational dangers.
Shipping	Passenger vessel
Considerations	Operating far away from civilisation.
Charted ZOC	B
Charted survey age	>20 years
FY prioritisation	TBA
Area (km ²)	11

3.13 Region 13: Campbell Island/Motu Ihupuku



Status	TBA
Purpose	To facilitate safe navigation.
Task	Conduct a modern survey of the coast and identify navigational dangers.
Shipping	Passenger vessel and research/patrol vessels
Considerations	Operating far away from civilisation.
Charted ZOC	B, C, D
Charted survey age	>30 years
FY prioritisation	TBA
Area (km ²)	121