



Northland Shipyard and Drydock Facility

Fast-track Approvals Act 2024 – Substantive application

August 2026



MINISTRY OF BUSINESS,
INNOVATION & EMPLOYMENT
HĪKINA WHAKATUTUKI

New Zealand Government
Te Kāwanatanga o Aotearoa



Ministry of Business, Innovation and Employment (MBIE) Hīkina Whakatutuki – Lifting to make successful

MBIE develops and delivers policy, services, advice and regulation to support economic growth and the prosperity and wellbeing of New Zealanders.

Cover Photo credit: Hans Wagemaker / Shutterstock

©Crown Copyright

The material contained in this report is subject to Crown copyright protection unless otherwise indicated. The Crown copyright protected material may be reproduced free of charge in any format or media without requiring specific permission. This is subject to the material being reproduced accurately and not being used in a derogatory manner or in a misleading context. Where the material is being published or issued to others, the source and copyright status should be acknowledged. The permission to reproduce Crown copyright protected material does not extend to any material in this report that is identified as being the copyright of a third party. Authorisation to reproduce such material should be obtained from the copyright holders.

TABLE OF CONTENTS

1. EXECUTIVE SUMMARY	1
2. APPLICATION OVERVIEW	10
2.1 General	10
2.2 Project overview	10
2.3 Purpose and decision-making framework of the FTAA	13
2.4 Project benefits	13
2.5 Functional and operational need	15
2.6 Approach to effects management	16
2.7 Consultation and engagement	17
2.7.1 Overview and purpose of engagement	17
2.7.2 Engagement approach and process	17
2.7.3 Tangata whenua, iwi, hapū and MACA applicant consultation	18
2.7.4 Local authorities and administering agencies	19
2.7.5 Adjacent operators, infrastructure providers and industry stakeholders	21
2.7.6 Community organisations and other interested parties	21
2.7.7 Key matters raised and Project response	22
2.7.8 Continuing engagement	23
2.8 Application structure	23
3. SITE AND RECEIVING ENVIRONMENT	24
3.1 Physical setting	24
3.2 Cultural setting	25
3.2.1 General	25
3.2.2 Patuharakeke	25
3.2.3 Te Parawhau	26
3.2.4 Ngātiwai	26
3.2.5 Iwi Management Plans and Cultural Documents	26
3.2.6 Marine and Coastal Area (Takutai Moana) Act	26
3.2.7 Treaty settlement and customary fishing context	27
3.3 Existing port activities	27
3.4 Surrounding land environment	28
3.4.1 Northport Industrial Land	28
3.4.2 Channel Infrastructure NZ	29
3.4.3 Other Industrial Uses	29
3.4.4 Rural Uses	29
3.4.5 Residential Communities	29
3.5 Coastal processes	29
3.5.1 General	29
3.5.2 Harbour Entrance, Channels and Sand Banks	31

3.6	Marine ecological values	31
3.6.1	Overview	31
3.6.2	Whangārei Harbour and Outer Harbour Context	32
3.6.3	One Tree Point to Marsden Bay Significant Ecological Area	32
3.6.4	Intertidal Habitats and Shellfish Values	33
3.6.5	Subtidal Habitats and Benthic Communities	35
3.6.6	Reef Habitat	36
3.6.7	Fish Values	37
3.6.8	Summary of Marine Ecological Values	37
3.7	Avifauna	37
3.7.1	Overview	37
3.7.2	Species composition and ecological values	38
3.7.3	Habitat and ecological context	39
3.7.4	Habitat use and spatial patterns	40
3.7.5	Breeding and roosting behaviour	41
3.7.6	Summary	43
3.8	Marine mammals	43
3.8.1	General	43
3.8.2	Regional and Harbour Context	43
3.8.3	Species Potentially Present	44
3.8.4	Summary	45
3.9	Landscape setting	46
3.9.1	General	46
3.9.2	Mapped landscape and natural character areas	47
3.10	Archaeology	49
3.10.1	General	49
3.10.2	Recorded Archaeological Sites	49
3.10.3	Archaeological Sensitivity	50
3.11	Navigation safety	51
3.12	Biosecurity	52
3.13	Noise	53
3.13.1	General	53
3.13.2	Existing noise environment	53
3.13.3	Existing noise monitoring	53
3.13.4	Existing noise related consent conditions	54
3.14	Traffic environment	56
3.14.1	General	56
3.14.2	Existing traffic environment	56
3.14.3	Intersections	56
3.14.4	Crash history	57
3.14.5	Mode share and accessibility	57

3.15	Recreation and public access	57
3.15.1	General	57
3.15.2	Terrestrial recreation and public access	58
3.15.3	Walking, running and general coastal use	58
3.15.4	Beach activities	59
3.15.5	Fishing	59
3.15.6	Shellfish gathering and diving	60
3.15.7	Boating and water-based recreation	60
3.16	Stormwater discharges and harbour water quality	61
3.16.1	General	61
3.16.2	Harbour water quality	61
3.16.3	Existing Northport stormwater system	62
3.16.4	Existing Northport conditions of consent and compliance	63
3.17	Air quality	64
3.17.1	General	64
3.17.2	Regulatory setting	65
3.17.3	Meteorology	65
3.17.4	Sensitive receptors	65
3.17.5	Background air quality	66
3.18	Unimplemented resource consents	67
3.18.1	Consents held by Northport	67
3.18.2	Consents held by CINZ	68

4. DESCRIPTION OF THE PROPOSAL 69

4.1	Overview	69
4.2	Reclamation	70
4.2.1	Overview	70
4.2.2	Reclamation and edge treatment	70
4.2.3	Functional need and reclamation extent	72
4.2.4	Reuse of dredged material and cut / fill balance	73
4.3	Dredging	73
4.3.1	Overview and purpose of dredging	73
4.3.2	Stage One dredge areas and depths	75
4.3.3	Stage Two dredge areas and depth	75
4.3.4	Dredging methodology and timing	76
4.3.5	Maintenance dredging	76
4.4	Relocated High Tide Bird Roost	77
4.5	Wharf, Wet berths and marine structures	78
4.6	Vessel haul-out system (floating drydock or ship lift)	79
4.6.1	General	79
4.6.2	Floating drydock option	79

4.6.3	Ship lift option	80
4.6.4	Environmental controls associated with vessel lifting	81
4.7	Hardstand and laydown areas	82
4.8	Access, parking and public access	83
4.8.1	Vehicle access and parking	83
4.8.2	Pedestrian access and public access	84
4.9	Lighting	85
4.10	Vessel maintenance activities and operational controls	86
4.10.1	Overview of vessel maintenance activities	86
4.10.2	Surface preparation	86
4.10.3	Surface coating	87
4.10.4	Biofouling and operational residues	88
4.10.5	Air discharge management	88
4.10.6	Stormwater and washwater management	88
4.10.7	Hazardous substances, spills and waste	90
4.11	Site servicing, buildings and utilities	91
4.12	Security, operational safety and separation of activities	91
4.13	Construction methodology	92
4.13.1	Overview	92
4.13.2	Reclamation and containment structures	93
4.13.3	Dredging and reclamation sequencing	94
4.13.4	Marine structures and vessel lifting infrastructure	94
4.13.5	Environmental management during construction	95
4.14	Management plan framework	95
4.15	Interface with existing Northport resource consents	97
5.	APPROVALS SOUGHT AND FTAA REQUIREMENTS	99
5.1	Overview	99
5.2	Resource consents required under the RMA	99
5.3	Permitted activities relied on under the RMA	99
5.4	Relationship with existing Northport consent conditions	99
5.5	Approval required under the Wildlife Act 1953	100
5.6	FTAA information requirements	100
5.7	Ineligible activities	100
5.8	Statutory framework	101
5.8.1	Overview	101
5.8.2	Competing application	101
5.8.3	Purpose and decision-making direction of the FTAA	101
5.8.4	Scope of approvals and applicable legislation	102
5.8.5	Relationship with the Resource Management Act	102
5.8.6	Role of Part 2 of the RMA	103
5.8.7	Wildlife Act 1953 approval	103

5.8.8	Treaty settlements and statutory obligations	103
6.	ASSESSMENT OF ENVIRONMENTAL EFFECTS	104
6.1	Introduction	104
6.2	Existing environment	105
6.3	Positive effects / project benefits	105
6.4	Construction effects overview	110
6.5	Reclamation and permanent CMA occupation	112
6.6	Coastal processes and dredging	112
6.6.1	Introduction	112
6.6.2	Construction effects	113
6.6.3	Permanent occupation effects	115
6.6.4	Effects on waves	115
6.6.5	Effects on currents and transport	116
6.6.6	Effects on Marsden Bay and Blacksmiths Creek spit	116
6.6.7	Effects on bathymetry and maintenance dredging	117
6.6.8	Effects on water levels and tidal prism	118
6.6.9	Effects on the inner harbour, Mair Bank, ebb-tide delta and open coast	118
6.6.10	Effects on coastal hazards and climate change response	118
6.6.11	Tsunami	119
6.6.12	Mitigation and management	119
6.6.13	Monitoring	120
6.6.14	Summary / Conclusions	121
6.7	Marine ecology	122
6.7.1	General	122
6.7.2	Intertidal sediment habitats and macrofauna	122
6.7.3	Subtidal habitat and benthic communities	123
6.7.4	Reef habitat	124
6.7.5	Fish	124
6.7.6	Chemical stressors and toxicants	125
6.7.7	Cumulative marine ecological effects	125
6.7.8	Measures to manage effects	126
6.8	Avifauna	127
6.8.1	Introduction	127
6.8.2	Existing avifauna values	127
6.8.3	Construction effects	128
6.8.4	Operational effects	129
6.8.5	Avoidance, remedy and mitigation measures	130
6.8.6	Residual effects and overall conclusion	130
6.9	Kororā / Wildlife Act effects	131
6.9.1	Introduction	131

6.9.2	Existing kororā values	131
6.9.3	Potential construction effects	132
6.9.4	Potential operational effects	132
6.9.5	Avoidance, mitigation and management	133
6.9.6	Wildlife Act approval	134
6.9.7	Residual effects and conclusion	135
6.10	Marine mammals and underwater noise	135
6.10.1	General	135
6.10.2	Relevant species	136
6.10.3	Construction noise	136
6.10.4	Pile driving noise	137
6.10.5	Behavioural disturbance and habitat exclusion	137
6.10.6	Management and mitigation	138
6.10.7	Vessel strike and entanglement	139
6.10.8	Conclusion	140
6.11	Stormwater, wastewater, and water quality	140
6.11.1	Introduction	140
6.11.2	Standard stormwater effects	141
6.11.3	High-risk operational run-off and trade waste	141
6.11.4	Overall conclusion	142
6.12	Air quality and operational discharge effects	143
6.12.1	Introduction	143
6.12.2	Construction dust effects	143
6.12.3	Operational surface preparation effects	145
6.12.4	Surface coating, overspray and contaminants	145
6.12.5	Odour effects	147
6.12.6	Human health effects	147
6.12.7	Effects on the CMA	148
6.12.8	Cumulative effects	149
6.12.9	Mitigation, monitoring and management	149
6.12.10	Conclusion	150
6.13	Terrestrial noise and vibration	151
6.13.1	Introduction	151
6.13.2	Existing noise environment	151
6.13.3	Construction noise and vibration	152
6.13.4	Operational noise effects	153
6.13.5	Conclusion	154
6.14	Landscape effects	154
6.14.1	Environmental context	154
6.14.2	Harbour-scale effects	156
6.14.3	Localised effects	157

6.14.4	Effects summary	160
6.15	Natural character effects	160
6.15.1	Environmental context	160
6.15.2	Assessment	161
6.15.3	Effects summary	163
6.16	Amenity and lighting effects (excluding noise)	164
6.16.1	Assessment context	164
6.16.2	Assessment of day-time amenity effects	164
6.16.3	Assessment of night-time amenity effects	166
6.16.4	Mitigation	167
6.16.5	Effects summary	168
6.17	Recreation and public access	169
6.17.1	Introduction	169
6.17.2	Assessment approach	169
6.17.3	Construction effects	170
6.17.4	Operational effects	171
6.17.5	Cumulative effects	173
6.17.6	Positive effects and mitigation	174
6.17.7	Overall conclusion	174
6.18	Archaeological effects	175
6.18.1	Introduction	175
6.18.2	Archaeological context	175
6.18.3	Field assessment and archaeological sensitivity	175
6.18.4	Potential archaeological effects	176
6.18.5	Heritage New Zealand Pouhere Taonga Act 2014	176
6.18.6	Accidental discovery protocol	176
6.18.7	Conclusion	177
6.19	Cultural effects	177
6.19.1	Assessment context	177
6.19.2	Potential cultural effects	178
6.19.3	Customary fishing and Fisheries Act Notices	179
6.19.4	Effects management and ongoing engagement	181
6.19.5	Conclusion	182
6.20	Navigation safety	183
6.20.1	Introduction and management framework	183
6.20.2	Construction navigation effects	183
6.20.3	Operational navigation effects	184
6.20.4	Conclusion	185
6.21	Traffic and access	185
6.21.1	Overview	185
6.21.2	Operational traffic effects	186

6.21.3	Network capacity and safety	187
6.21.4	Cumulative traffic effects	188
6.21.5	Construction traffic effects	189
6.21.6	Overall conclusion	189
6.22	Biosecurity	190
6.23	Natural hazards and climate change	192
6.23.1	Introduction	192
6.23.2	Existing coastal hazard setting	193
6.23.3	Sea level rise and climate change	193
6.23.4	Coastal erosion and shoreline change	194
6.23.5	Coastal inundation, storm tide and waves	195
6.23.6	Tsunami	195
6.23.7	Stormwater and drainage	196
6.23.8	Design response	197
6.23.9	Conclusion	197
6.24	Cumulative effects	197
6.24.1	Assessment approach	197
6.24.2	Existing and consented environment	198
6.24.3	Key cumulative effects	199
6.24.4	Effects managed through design and conditions	201
6.24.5	Overall cumulative effects conclusion	202
6.25	Overall effects conclusion	203
6.25.1	Overview	203
6.25.2	Effects avoided or managed through location, design and conditions	204
6.25.3	Residual adverse effects	206
6.25.4	Ecological and cultural enhancement contribution	208
6.25.5	Overall conclusion	209
7.	RESOURCE CONSENT ASSESSMENT	211
7.1	Overview and statutory approach	211
7.2	Infrastructure and Regionally Significant Infrastructure provisions	211
7.2.1	National Policy Statement for Infrastructure	211
7.2.2	RPS and RPN infrastructure provisions	212
7.3	New Zealand Coastal Policy Statement	212
7.3.1	Overall direction	212
7.3.2	Policy 11 and indigenous biodiversity	213
7.3.3	Policies 13 and 15	214
7.3.4	Other relevant NZCPS provisions	215
7.4	National Policy Statement for Indigenous Biodiversity	216
7.5	Regional Policy Statement for Northland	217
7.6	Regional Plan for Northland and Whangārei District Plan	218

7.6.1	Spatial planning context	218
7.6.2	RPN Policy D.2.9	218
7.6.3	RPN Policies D.2.18, D.5.8 and D.5.9	219
7.6.4	Other RPN provisions	220
7.6.5	Whangārei District Plan	221
7.7	Assessment against Sections 5, 6 and 7 of the RMA, 1991	221
7.7.1	Statutory context	221
7.7.2	Section 5 – Purpose	222
7.7.3	Section 6 – Matters of National Importance	225
7.7.4	Section 7 – Other matters	230
7.7.5	Overall Part 2 conclusion	233
7.8.2	Nature and extent of the ecological effects relevant to the reconciliation	234
7.8	Reconciliation of the Statutory Directions	235
7.8.1	Reconciliation framework	235
7.8.3	Functional need, alternatives and effects minimisation	236
7.8.4	Application of the infrastructure and locational provisions	238
7.8.5	Reconciliation under RPN Policy D.2.9	239
7.8.6	FTAA evaluation and overall reconciliation	240
8.	WILDLIFE ACT APPROVAL ASSESSMENT	243
8.1	Introduction	243
8.2	Approval sought	244
8.3	Purpose of the proposed activity	244
8.4	Protected wildlife species covered by the approval	245
8.5	Location of the activity	246
8.6	Existing environment and survey information	246
8.7	Actions involving protected wildlife	247
8.8	Assessment against the purpose of the Wildlife Act 1953	250
8.9	Mandatory decline matters	251
8.10	Actual and potential effects on kororā	251
8.11	Avoidance and minimisation measures	253
8.12	Best practice standards	255
8.13	Animal welfare and humane handling	256
8.14	Relocation records and reporting	257
8.15	Incidental discovery protocol	257
8.16	HPAI / Bird Flu protocol	258
8.17	Consultation	258
8.18	Applicant Offence Declaration	259
8.19	Expert views, advice, and opinions	259
8.20	Assessment against Schedule 7 information requirements	259
8.21	Conclusion	260
9.	OVERALL ASSESSMENT AND CONCLUSION	261

LIST OF TABLES

Table 8-1: Protected wildlife species covered by the Wildlife Act approval

Table 8-2: Assessment against Schedule 7 information requirements

LIST OF FIGURES

Figure 2-1: Project location and immediate harbour context

Figure 2-2: Project location relative to Marsden Point Port Zone

Figure 3-1: Principal coastal process features of the lower Whangārei Harbour

Figure 3-2: Project footprint and juvenile pipi bed

Figure 3-3: Project footprint and principal intertidal ecological features

Figure 3-4: Coastal avifauna survey locations and compartments

Figure 3-5: Avifauna nesting habitat, recorded nesting locations and management areas

Figure 3-6: Landscape and natural character areas in the Whangārei District Plan

Figure 3-7: Landscape and natural character areas in the Regional Plan for Northland

Figure 3-8: Recorded archaeological sites in the vicinity of the Project

Figure 3-9: Existing and proposed stormwater catchments

Figure 3-10: High tide bird roost consented under AUT.005055

Figure 4-1: Proposed shipyard and drydock general arrangement

Figure 4-2: Representative cross-sections through the reclamation and western coastal edge

Figure 4-3: Stage One dredging areas

Figure 4-4: Stage Two dredging areas

Figure 4-5: Consented bird roost and proposed relocated bird roost

Figure 4-6: Damen Modular Drydock 24536 – floating drydock example

Figure 4-7: Ship lift example

Figure 4-8: Indicative carpark location

Figure 4-9: Indicative shipyard stormwater and operational runoff drainage layout

Figure 6-1: Existing and proposed view from Marsden Bay Reserve

Figure 6-2: Existing and proposed view from the Albany Road beachfront

APPENDICES

Appendix 1: Listed Project Material

Appendix 2: FTAA Requirements Checklist

Appendix 3: Section 29 Consultation Parties

Appendix 4: Consultation Record

Appendix 5: Section 30 Notice from Northland Regional Council

Appendix 6: Project Plans

Appendix 7: Proposed Resource Consent Conditions

Appendix 8: Wildlife Act Approval Proposed Conditions

Appendix 9: Draft Management Plans

- 9A: Construction Environmental Management Plan (CEMP)
- 9B: Marine Mammal Management Plan (MMMP)
- 9C: Avifauna Management Plan (AMP)
- 9D: Kororā / Little Blue Penguin Management Plan (KMP)
- 9E: Air Quality Management Plan (AQMP)
- 9F: Operational Traffic Management Plan (OTMP)
- 9G: Shipyard Noise Management Plan (NMP)
- 9H: Environmental Monitoring Management Plan (EMMP)

Appendix 10: Economic Impact Assessment

Appendix 11: Concept Design and Construction Report

Appendix 12: Issues and Options Report

Appendix 13: Coastal Processes Assessment

Appendix 14: Met Ocean Assessment Reports

- 14A: Hydrodynamic Assessment
- 14B: Morphodynamic Assessment
- 14C: Dredge Plume Modelling Assessment
- 14D: Pipi Larvae Modelling Assessment

Appendix 15: Assessment of Marine Ecological Effects

Appendix 16: Coastal Avifauna Assessment

Appendix 17: Assessment of Effects on Marine Mammals

Appendix 18: Assessment of Underwater Noise Effects

Appendix 19: Landscape, Natural Character and Visual Effects Assessment

Appendix 20: Archaeological Assessment

Appendix 21: Stormwater, Washwater and Wastewater Assessment

Appendix 22: Air Quality Effects Assessment

Appendix 23: Terrestrial Noise and Vibration Assessment

Appendix 24: Navigation Safety Assessment

Appendix 25: Transport Assessment

Appendix 26: Recreation and Public Access Assessment

Appendix 27: Marine Biosecurity Assessment

Appendix 28: Ecotoxicity Assessment

Appendix 29: Interim Cultural Impact Assessment

Appendix 30: Northland Marine Oil Spill Contingency Plan

Appendix 31: Existing Northport Resource Consents

Appendix 32: Existing Channel Infrastructure Resource Consents

Appendix 33: Statutory Planning Assessment Tables

Appendix 34: Resource Consents Required Table

Appendix 35: Permitted Activities Table

Appendix 36: Regional and National Public-Interest Benefits Report

Appendix 37: NZTA correspondence

Appendix 38: Surveyors letter (boundary of Allot 116 Parish of Ruakaka)

Appendix 39: Legal Road Occupation Plan

Appendix 40: Adjacent Property Owners and Occupiers Map

Appendix 41: Concept Design Review

Appendix 42: Department of Conservation pre-lodgement consultation feedback

Appendix 43: Whangarei District Council approval in principle for road occupation

ABBREVIATIONS

AEE	Assessment of Environmental Effects
AMP	Avifauna Management Plan
AQMP	Air Quality Management Plan
BMP	Biosecurity Management Plan
C+C	Coast and Catchment
CD	Chart Datum
CEMP	Construction Environmental Management Plan
CIA	Cultural Impact Assessment
CINZ	Channel Infrastructure NZ Ltd
CMA	Coastal Marine Area
CTMP	Construction Traffic Management Plan
DMP	Capital Dredging Management Plan
DMMOZ	Dredging Marine Mammal Observation Zone

DOC	Department of Conservation
EIANZ	Environment Institute of Australia and New Zealand
EMMP	Environmental Monitoring and Management Plan
EMMOZ	Extended Marine Mammal Observation Zone
EPA	Environmental Protection Authority
FIDOL	Frequency, Intensity, Duration, Offensiveness and Location assessment
FTTA	Fast-track Approvals Act 2024
GDP	Gross Domestic Product
GPS	Global Positioning System
HPAI	Highly pathogenic avian influenza
ITA	Integrated Transport Assessment.
KMP	Kororā / Little Blue Penguin Management Plan
LED	Light Emitting Diode
LEP	Light Emitting Plasma
MACA	Marine and Coastal Area (Takutai Moana) Act 2011
MBIE	Ministry of Business, Innovation and Employment.
MDA	Marshall Day Acoustics Ltd
MDMP	Maintenance Dredging Management Plan
MHWS	Mean High Water Springs
MMH	Marsden Maritime Holdings Limited
MMMP	Marine Mammal Management Plan
MMOs	Marine Mammal Observers
MMOZ	Marine Mammal Observation Zone
MO	Met Ocean
MPI	Ministry for Primary Industries
MPPZ	Marsden Point Port Zone
NMP	Shipyard Noise Management Plan
NPS-I	National Policy Statement for Infrastructure 2025
NPS-IB	National Policy Statement for Indigenous Biodiversity 2023
NRC	Northland Regional Council
NSMP	Navigation Safety Management Plan

NTU	Nephelometric Turbidity Unit (a measure of turbidity)
NZCPS	New Zealand Coastal Policy Statement
NZTA	Waka Kotahi NZ Transport Agency
OCMMOZ	Outer Channel Marine Mammal Observation Zone
OLMP	Operational Lighting Management Plan
OTMP	Operational Traffic Management Plan
RMA	Resource Management Act
RPN	Regional Plan for Northland
RPS	Regional Policy Statement for Northland
RSI	Regionally Significant Infrastructure
SEA	Significant Ecological Area
SH1	State Highway 1
SH15	State Highway 15
SIPO	South Island pied oystercatcher
Site	The area comprising access, reclamation, dredging and structures shown on the Project Plans in Appendix 6 .
SMP	Stormwater Management Plan
SQE	Suitably Qualified Expert
TSP	Total Suspended Particulate
UHMMOZ	Upper Harbour Marine Mammal Observation Zone
VOC	Variable oystercatcher
WDC	Whangarei District Council
WDP	Whangarei District Plan

1. EXECUTIVE SUMMARY

This substantive application is made by the Ministry of Business, Innovation and Employment (MBIE) and seeks approvals under the Fast-track Approvals Act 2024 (FTAA) to authorise the construction, operation and maintenance of a shipyard and drydock facility at Marsden Point, Whangārei Harbour.

The Project is listed in Schedule 2 of the FTAA and will provide significant regional and national benefits. It will establish purpose built marine maintenance and repair infrastructure capable of servicing large commercial, specialist and naval vessels within New Zealand. In doing so, the Project will address a material gap in New Zealand's maritime servicing capability, reduce reliance on overseas drydock facilities and improve the resilience and sovereign capability of the maritime sector.

Project description

The Project includes the construction and operation of an approximately 9.7 ha reclamation, a vessel haul-out system, wharf and wet berth structures, dredged access and manoeuvring areas, hardstand and laydown areas, workshops, fixed plant, buildings, stormwater and washwater infrastructure, access, parking, services and associated marine industrial activities. The vessel haul-out system will comprise either a floating drydock or ship lift. The facility is intended to accommodate vessels ranging from approximately 50 m to 230 m in length and between approximately 500 tonnes and 28,000 tonnes displacement.

The Project includes dredging of two areas: the western turning basin, and the secondary dredge area. For convenience, dredging within these areas is referred to as dredging "stages"; to avoid any potential confusion, it is not proposed that the Project itself is to proceed in stages (as contemplated in s37A of the FTAA). Stage One comprises the capital dredging required for the western turning basin. This includes the shipyard berth pocket, layby berth and vessel manoeuvring area, together with maintenance dredging required for the ongoing operation of those areas. The manoeuvring area will have a variable dredge profile, with a minimum depth of approximately -11.5 m Chart Datum (CD). The layby berth will be dredged to approximately -14.5 m CD and the vessel haul-out pocket to approximately -16.0 m

CD. Stage Two comprises capital dredging of the secondary dredge area, being an area within the spatial footprint authorised by the Northport Eastern Expansion consents, to a selected depth of up to approximately -18.0 m CD. Stage Two is included to ensure that sufficient dredged material is available for both the Project reclamation and the reclamation authorised by the Northport Eastern Expansion consents. Stage Two will not require ongoing maintenance dredging.

The proposed reclamation will provide the operational land area required for vessel lifting, transfer, maintenance, repair, laydown, access, movement and associated marine industrial activities. Public access around the western edge of the reclamation is proposed, including access to a replacement public fishing platform and a small bird viewing hide overlooking Blacksmiths Creek and associated coastal bird habitat. Access to parts of the coastal edge will necessarily be managed for health and safety, security, construction, maintenance and operational reasons.

Location selection

The Project is proposed to be located immediately west of the existing Northport facility at Marsden Point. The location has been selected because of its functional and operational requirements, including natural deep-water access, sheltered harbour conditions, proximity to existing port and marine infrastructure, access to land transport connections, and the ability to integrate with existing and consented port and industrial activities. These natural and physical characteristics make Marsden Point particularly well suited to the functional and operational requirements of the Project.

The applicable spatial planning provisions are also relevant to selection of location. Specifically, most of the marine components of the Project are located within the Marsden Point Port Zone (MPPZ), which expressly provides for maritime related commercial and industrial development.

Regional and national benefits

The Economic Impact Assessment at **Appendix 10** and the Regional and National Public-Interest Benefits Report at **Appendix 36** identify significant regional and national benefits arising from the Project.

Construction and base case operations are estimated to support approximately \$828 million of discounted value added nationally over the modelled period, calculated at an 8% discount rate. Approximately \$435 million of that value added is estimated to accrue to Northland. The Project is also estimated to support approximately 20,380 job years nationally, including approximately 13,961 job years in Northland, and approximately \$244 million in household income accruing to Northland households.

During the operational phase, the Project is estimated to support an average of approximately 440 modified employment count positions each year under the base case, including approximately 259 direct positions. These benefits will arise in a region with lower gross domestic product (GDP) per capita, higher unemployment and substantially higher youth labour market underutilisation than the national average, and in the Marsden Point locality following the loss of approximately 400 direct petroleum/refining jobs when the refinery ceased operating.

At the national level, the Project will avoid or reduce the need for New Zealand vessels to travel to overseas facilities for scheduled maintenance and regulatory surveys. The Economic Impact Assessment estimates the present value of avoided transit, crew, port and vessel downtime costs at approximately \$80 million to \$124 million at an 8% discount rate, with a further estimated \$109 million in net operating surplus. The quantified benefits exclude other significant benefits such as improved resilience, sovereign and defence capability, carbon savings, labour market benefits and any avoided or deferred expenditure on existing domestic drydock infrastructure. The Economic Impact Assessment concludes that the Project will provide significant national benefits.

The Project will also provide wider strategic and public-interest benefits. In particular, it will reduce New Zealand's reliance on offshore heavy marine maintenance facilities, improve domestic control over vessel maintenance scheduling and return-to-service, strengthen transport and supply chain resilience, and increase maritime strategic capability and optionality. It will also provide an enabling infrastructure base for maritime sector workforce development, training and domestic supplier capability. Where domestic servicing replaces voyages undertaken solely to access

offshore maintenance facilities, the Project will also reduce associated transit fuel use and emissions. These benefits are described in the Regional and National Public-interest Benefits report.

Adverse impacts

The Project has been carefully assessed by a range of experienced and qualified independent technical experts having regard to the existing and reasonably foreseeable receiving environment at Marsden Point and within the Whangārei Harbour. The receiving environment is already modified by Northport, Channel Infrastructure, and other Marsden Point industrial activities, existing reclamation, dredging, port operations, navigation infrastructure, stormwater discharges, coastal structures, nearby marine development and other harbour activities. However, the coastal marine area west of Northport also contains important marine ecological, avifauna, cultural, landscape, natural character, recreational and coastal process values.

Marine Ecology

The Project is located adjacent to, and partly overlaps, the One Tree Point to Marsden Bay Significant Ecological Area (SEA). The Project will permanently remove or modify high value intertidal and subtidal habitats, including habitat within the One Tree Point to Marsden Bay SEA. Dredging will also alter benthic habitat within the dredged areas, and the recolonising communities post dredging are expected to have lower abundance, diversity and productivity than the existing communities. Temporary off-site effects from sediment plumes will be managed through dredging controls, monitoring and response measures.

Avifauna

The Project will remove or disturb shorebird feeding and roosting habitat in Marsden Bay, including habitat used by northern New Zealand dotterel and other coastal bird species. The measures in the Avifauna Management Plan (AMP) will reduce these effects, but residual effects on northern New Zealand dotterel will remain because of the permanent loss of foraging habitat and the potential for disturbance and displacement. While there is no statutory requirement to further manage these

residual effects, MBIE proposes an ecological and cultural enhancement contribution to support wider initiatives associated with Whangārei Harbour.

The existing Northport revetment provides potential kororā / little blue penguin habitat, although repeated surveys – including through use of a certified detection dog – have not identified kororā or evidence of their use of the area. A Wildlife Act approval is nevertheless sought to provide for accidental discovery during construction. The Kororā / Little Blue Penguin Management Plan (KMP) requires pre-construction surveys and sets out procedures for exclusion, handling, relocation where authorised, monitoring and reporting.

Marine Mammals

Marine mammals may use Whangārei Harbour, Te Ākau / Bream Bay and the wider north-eastern coastal waters. The principal potential effect on marine mammals is underwater noise from construction, particularly impact piling. Subject to the proposed Marine Mammal Management Plan (MMMP), source noise reduction, soft-start / ramp-up procedures, marine mammal observation, shutdown requirements, daylight piling controls and acoustic validation, permanent or temporary hearing injury effects are expected to be avoided. Residual effects are expected to relate primarily to short-term behavioural disturbance, masking and temporary avoidance of parts of the harbour during piling periods. Those residual effects are relevant to New Zealand Coastal Policy Statement (NZCPS) Policy 11 and the related regional policy framework because threatened or at-risk marine mammal species may use or approach the harbour.

Coastal processes

The reclamation and dredging will cause localised changes to waves, currents, sediment movement and seabed conditions near the Project. The coastal process modelling confirms that those effects will not materially affect the functioning of the lower harbour, harbour entrance, Mair Bank, ebb-tide delta or open coast. The overall long-term coastal process effects are assessed as minor.

Landscape and natural character

The Project will extend the existing marine industrial edge west of Northport. Its principal landscape and visual effects will arise from the reclaimed working area, large vessels, marine structures, operational activity and lighting. Although the site is not within an Outstanding Natural Feature, Outstanding Natural Landscape, Outstanding Natural Character Area or High Natural Character Area, the Project will be visible from Marsden Bay and parts of the wider harbour. The proposed controls include limits on lighting, and Pohutukawa planting along the southern and western edges of the reclamation.

Construction effects

Construction effects will include noise and vibration, underwater noise, dust, traffic, sediment disturbance, temporary occupation of the coastal marine area (CMA) and disruption associated with dredging, piling and reclamation. These effects will be managed through the relevant construction, dredging, ecological, traffic, navigation, noise and biosecurity controls and monitoring requirements.

Stormwater /water quality

Stormwater, operational runoff and wastewater will be managed through a separated treatment and discharge framework. Standard rainfall runoff from roofs, roads, low-risk hardstand and vessel work areas when high risk activities are not occurring, will be collected, pre-treated and discharged to the existing Northport stormwater canal and pond system (and from there, to the harbour via the existing outfall structures). The Stormwater Assessment confirms that the Northport pond has sufficient treatment and volumetric capacity to receive the additional standard stormwater runoff from the shipyard, but that parts of the collection and conveyance network require adaptation. Those works include extension of the perimeter canal system around the western side of the shipyard, modification of existing western spillway arrangements and provision of an additional western / north-western spillway. Operational washwater and process runoff from vessel cleaning, water blasting, pressure washing, wet blasting, surface preparation and similar activities will be isolated from the stormwater system, captured, buffered and treated where

required, and directed to the Whangārei District Council wastewater network under trade waste approval or to another authorised disposal pathway. Subject to pre-treatment, shut-off controls, trade waste diversion, internal monitoring, Northport pond monitoring, detailed design certification and proposed conditions, stormwater, washwater and wastewater effects are expected to be appropriately managed.

Terrestrial noise

Vessel surface preparation, particularly wet abrasive blasting, will be the dominant operational noise source. Subject to the proposed operational controls, consent conditions and implementation of the Shipyard Noise Management Plan (NMP), the Project can comply with the applicable operational noise limits. Outdoor blasting, hammering and grinding will be restricted to 7.00 am to 6.00 pm, Monday to Saturday. Although blasting may be noticeable at Marsden Bay because of its distinctive character, the resulting effects are considered manageable.

Construction noise and vibration are predicted to comply with the applicable standards and will be managed through the proposed construction controls. Underwater construction noise is assessed separately.

Cultural

Whangārei Harbour and Marsden Point / Poupouwhenua are culturally significant to mana whenua. The Project will result in further modification and occupation of the coastal marine area, including reclamation and dredging, and will have cultural effects associated with the relationship of mana whenua with the harbour, its ecological values, mahinga kai, customary use, access, cultural landscapes and the mauri of the harbour.

Engagement with mana whenua is ongoing. An interim Cultural Impact Assessment prepared by Patuharakeke identifies concerns regarding the permanent modification of Whangārei Te Rerenga Parāoa and Poupouwhenua, cumulative effects on the harbour and its ecological and cultural values, and the ability of Patuharakeke to maintain its relationship with, and exercise kaitiakitanga over, the harbour. Further engagement is continuing in relation to these matters and the appropriate response to cultural effects.

The intention, subject to further consultation, is to include cultural conditions enabling mana whenua involvement in environmental monitoring and management, to support the exercise of kaitiakitanga in Whangārei Harbour,

Navigation safety

Navigation and maritime safety have been assessed. The Project has been designed to operate adjacent to existing port and harbour navigation infrastructure and to accommodate safe vessel access, manoeuvring, berthing and haul-out activities. Wider navigation effects are proposed to be managed through liaison with the Harbourmaster, navigation management procedures, operational windows, temporary exclusion or control areas where required, and appropriate aids to navigation.

Residual effects

Residual adverse effects that remain after mitigation are associated with permanent marine habitat loss, avifauna habitat loss and disturbance, underwater noise effects on marine mammals during construction, changes in landscape and visual character, and cultural effects associated with further modification of the coastal marine area. These effects cannot be fully avoided or remedied while still providing the functional reclamation, berth pocket, wharf structures, vessel lifting system and operational areas required for the Project.

Effects management

The application includes a comprehensive suite of proposed conditions. The proposed conditions address detailed design, construction and operational management, dredging, discharges, ecological effects, avifauna, kororā, marine mammals, biosecurity, noise, lighting, traffic, public access, cultural matters, monitoring, reporting and management plan certification.

Northport consents

Some components of the Project will interface with activities, works or obligations governed by existing Northport resource consents, including matters associated with public access, the existing fishing platform, landscaping, the high tide bird roost and

the Northport stormwater system. MBIE has engaged with Northport closely in designing the Project and in preparing this application. MBIE seeks resource consent for the potential minor relocation of the high tide bird roost required to be provided by Northport as part of its expansion, due to proximity of the proposed Dry Dock Project. No change or cancellation of existing Northport resource consent conditions is sought through this application. Any separate variation to the conditions of the existing Northport resource consents, and other authorisation required from Northport to implement the Project, will be obtained through a separate process.

Summary

The Project will provide significant regional and national benefits and has a functional need to locate in the CMA. Its location beside Northport places it within an established marine industrial setting, but does not avoid residual effects on marine habitat, avifauna, landscape and cultural values. Those effects have been comprehensively assessed and managed to the extent practicable. For the reasons set out in Sections 6 and 7, and subject to the proposed conditions, the approvals can be granted in accordance with the requirements and purpose of the FTAA.

2. APPLICATION OVERVIEW

2.1 GENERAL

This substantive application is made by MBIE under the FTAA and seeks to authorise the construction, operation and maintenance of a shipyard and drydock facility adjoining the western side of Northport at Marsden Point, Whangārei Harbour. MBIE is the authorised person in Schedule 2 of the FTAA.

The Project will provide a purpose built facility for the maintenance, repair and servicing of large vessels. Its location provides direct access to deep water, existing port services and established industrial infrastructure.

The Project is a listed project in Schedule 2 of the FTAA.¹ MBIE is now making a substantive application under the FTAA for all necessary approvals for the construction and operation of the drydock and shipyard.

The required approvals are:

- Resource consents that would otherwise be applied for under the Resource Management Act 1991 (RMA); and
- Approval for lawful authority for acts or omissions that would otherwise be offences under the Wildlife Act 1953 (Kororā / Little Blue Penguin).

2.2 PROJECT OVERVIEW

The proposal involves the construction and operation of a shipyard and drydock facility adjoining the western side of the existing Northport facility at Marsden Point, Whangārei Harbour. The Project includes an approximately 9.7 ha reclamation, a vessel haul-out system, associated wharf and wet berth structures, dredging, hardstand and laydown areas, fixed plant, buildings, access, parking, public access and supporting infrastructure.

The shipyard is intended to accommodate maintenance activities for a range of large private, commercial and naval vessels. Maintenance activities will be

¹ Shipyard and drydock facility (Schedule 2, FTAA, 2024)

operation of maritime related commercial enterprises and industrial activities. In that context, the Project is functionally complementary to the established maritime industrial environment at Marsden Point.



Figure 2-2: Project location relative to Marsden Point Port Zone

The receiving environment has been the subject of substantial earlier technical assessment through the Northport consent processes, including assessments of coastal processes, marine ecology, navigation and land based effects. That material provides relevant baseline context. Project specific technical assessments have also been prepared to address the design, construction methodology, operational activities and effects of the shipyard and drydock facility.

The dredging required for the Project comprises two “stages”. Stage One comprises capital dredging of the western turning basin, comprising the berth pocket, layby berth and vessel manoeuvring area required for the safe construction and operation of the facility, together with maintenance dredging required for those operational areas. Stage Two comprises dredging of the secondary dredge area, which is within the spatial footprint authorised by the existing (extant) Northport Eastern Expansion Consents, to a selected depth of up to approximately -18.0 m CD. Stage Two is

included to ensure that sufficient dredged material is available for both the Project reclamation and Northport's consented eastern expansion reclamation works. For clarity, we record that dredging of these two areas/"stages" may occur contemporaneously, and that a staged approval for the Project (in the s 37A FTAA sense) is not sought.

2.3 PURPOSE AND DECISION-MAKING FRAMEWORK OF THE FTAA

The purpose of the FTAA is to facilitate the delivery of infrastructure and development projects with significant regional or national benefits. In considering the substantive application for the Project, the Expert Panel is required to give the greatest weight to the purpose of the FTAA.

The Project is listed in Schedule 2 of the FTAA. Its regional and national benefits, which are directly relevant to the purpose of the FTAA, are summarised in Section 2.4 and assessed in greater detail in Section 6.3.

2.4 PROJECT BENEFITS

The Project will provide significant regional and national benefits by establishing purpose built marine maintenance and repair infrastructure capable of servicing large commercial, specialist and naval vessels within New Zealand. Those benefits are assessed in the Economic Impact Assessment at **Appendix 10**² and the Regional and National Public-Interest Benefits Report at **Appendix 36** and are addressed in greater detail in Section 6.3.

At a regional level, the Project represents a substantial capital investment in Northland and will support sustained employment, household income and economic activity. The current estimated capital cost is approximately \$788 million, of which approximately \$539 million is expected to comprise domestic expenditure. Construction and base case operations are estimated to support approximately \$828 million of discounted value added nationally over the modelled period at an 8% discount rate, including approximately \$435 million accruing to Northland.

² The publicly available version of the Economic Impact Assessment contains limited redactions to protect commercially sensitive information.

The Project is estimated to support approximately 20,380 job-years nationally, including approximately 13,961 job-years in Northland. Base-case operations are estimated to support an average of approximately 440 modified employment count positions each year, including approximately 259 direct positions. The present value of household income accruing to Northland households is estimated at approximately \$244 million.

Those benefits are particularly material in the Northland context. Northland has materially lower GDP per capita than New Zealand as a whole, higher unemployment and substantially higher rates of young people not in employment, education or training. The Project will also re-establish a high wage and capital intensive industrial activity in the Marsden Point locality following the loss of approximately 400 direct petroleum/refining jobs when the Marsden Point refinery ceased operating. Northland has an existing concentration of marine related industries on which the Project can build, although workforce development and upskilling will be required to maximise the regional benefits.

At a national level, the Project will address the absence of a domestic facility capable of servicing many of the vessels on which New Zealand's freight, energy, defence and inter-island connectivity depend. It will reduce reliance on overseas drydock facilities, avoid transit and vessel downtime costs, retain a greater share of maritime repair and maintenance activity within New Zealand, and improve resilience and sovereign capability.

The Economic Impact Assessment estimates the present value of avoided overseas transit, crew, port and vessel downtime costs at approximately \$80 million to \$124 million at an 8% discount rate. It also estimates a present value of approximately \$109 million in net operating surplus. Other national benefits, including resilience and option value, sovereign and defence capability, carbon savings, labour market benefits and any avoided or deferred expenditure on existing domestic drydock infrastructure, have not been monetised.

The Regional and National Public Interest Benefits Report assesses the Project's wider strategic, resilience, capability, workforce, supplier and environmental significance.

It identifies the strongest and most direct public interest benefits as the reduction of New Zealand's reliance on offshore heavy marine maintenance facilities, improved domestic control over vessel maintenance scheduling and return-to-service, strengthened transport and supply chain resilience, and increased maritime strategic capability and optionality.

The Project will also provide an enabling infrastructure base for broader maritime sector development and for regional workforce, training and supplier capability. Those wider outcomes are material, but their eventual scale and distribution will depend more substantially on facility utilisation, the operating and commercial model, procurement arrangements, workforce development and regional participation. Where domestic servicing replaces a voyage undertaken solely to obtain offshore maintenance, the Project will also reduce transit fuel use and associated emissions and bring the relevant maintenance activity within New Zealand's environmental, waste management and biosecurity systems.

These wider benefits complement the benefits assessed in the Economic Impact Assessment.

2.5 FUNCTIONAL AND OPERATIONAL NEED

The terms functional need and operational need are used in this application in accordance with the definitions in the National Planning Standards 2019.³

The Project has both a functional and an operational need to locate at the coastal edge and within the coastal marine area. Its core purpose requires large vessels to move directly between navigable water, the drydock or ship lift, and the adjoining shipyard facilities. The marine and land based components must also be co-located and operated as an integrated facility because of the Project's technical, logistical and operational requirements.

³ **functional need** as the need to locate or operate in a particular environment because the activity can only occur in that environment; and

operational need as the need to locate or operate in a particular environment because of technical, logistical or operational characteristics or constraints.

Those requirements materially constrain the locations in which the Project can be established and operated. The reasons for selecting the Marsden Point location are addressed in Section 4, and the relevance of the Project's functional and operational need under the applicable policy and plan provisions is assessed in Section 7.

2.6 APPROACH TO EFFECTS MANAGEMENT

The Project design and proposed conditions seek to avoid adverse effects where practicable and otherwise to remedy or mitigate them. Beyond this, MBIE proposes an ecological and cultural enhancement contribution as an additional and voluntary response to residual ecological effects and wider harbour values.

The principal design responses include locating the Project beside the established Northport facility, thereby consolidating coastal development into an area that is heavily modified from its natural state; minimising the reclamation footprint to the practicable extent necessary; separating higher risk operational runoff from standard stormwater, containing activities that may generate contaminants; locating most of the Stage One dredging and all Stage Two dredging within the footprint already authorised by the Northport Eastern Expansion consents; incorporating public access around the perimeter of the reclamation and constructing a deepwater fishing platform with free public access; and using existing port infrastructure where this can be achieved without compromising environmental performance.

Potential effects will be managed through a combination of design responses, operational controls, and certified management plans. The detailed assessment of effects, and the identification of any residual effects, is addressed later in this application and in the supporting technical assessments.

For operational vessel maintenance activities, the Project adopts a risk based management approach. Surface preparation, spray coating and other activities with the potential to discharge contaminants to air will be undertaken in accordance with a certified AQMP. The applicable controls will include method selection, wind and visual monitoring, physical screening, encapsulation, extraction, filtration, application rate controls and activity modification or cessation, having regard to the

activity, coating composition, meteorological conditions and contaminant risk. Dry abrasive blasting will be encapsulated, and specified coating compounds will be subject to the additional application and treatment restrictions described in Section 4.10.3.

2.7 CONSULTATION AND ENGAGEMENT

2.7.1 Overview and purpose of engagement

Engagement has been undertaken during preparation of the substantive application with tangata whenua, iwi and hapū, MACA applicant groups, local authorities, statutory agencies, adjacent operators, infrastructure providers, industry participants, community organisations and other parties with an identified interest in the Project or the surrounding environment.

The engagement has been undertaken both to meet the applicable statutory consultation and notification requirements and, more broadly, to provide information about the Project, identify matters requiring assessment, obtain feedback and establish channels for continuing engagement. Matters raised through engagement have informed the technical assessments, Project design, proposed conditions and management framework where relevant.

The parties identified for the purposes of section 29 of the FTAA are listed in **Appendix 3**. The detailed consultation and engagement record is contained in **Appendix 4**. Inclusion of a party in that record does not imply support for the Project.

2.7.2 Engagement approach and process

Initial consultation correspondence was issued in May 2026. Further information was provided progressively as the Project design and technical assessments developed. Engagement methods included written correspondence, provision of plans and technical information, a recorded Project webinar, kanohi ki te kanohi hui and meetings, online meetings, discussions with technical advisers and follow up exchanges.

The engagement programme included both statutory consultation and wider voluntary engagement. **Appendix 4** records the nature and extent of that engagement in greater detail.

2.7.3 Tangata whenua, iwi, hapū and MACA applicant consultation

Engagement has been undertaken with Patuharakeke, Te Parawhau, Ngātiwai and Ngāti Tu, together with other iwi, hapū and MACA applicant interests associated with Whangārei Harbour, Marsden Point / Poupouwhenua, Te Ākau / Bream Bay and the wider coastal environment. On 19 May 2026, MBIE wrote to relevant MACA applicant groups providing information about the Project, inviting feedback and offering hui or meetings with the Project team. Subsequent engagement has included meetings with representatives of Patuharakeke, Te Parawhau, Ngātiwai and Ngāti Tu, provision of Project and technical information, discussions concerning cultural assessment requirements and resourcing, and opportunities for direct engagement with Project specialists.

On 26 June 2026, further written notice was provided in relation to tangata whenua interests in areas subject to bylaws or regulations made under Part 9 of the Fisheries Act 1996. That notification related to the Fisheries (Kaimoana Customary Fishing) Notice (No. 1) 2009 (No. F482) and the Fisheries (Notification of Tāngata Kaitiaki/Tiaki for Area/Rohe Moana of Ngāti Kahu, Te Parawhau, Ngāti Tu and Patuharakeke) Notice 2021 (Notice No. MPI 1353). The recipients and relevant correspondence are recorded in **Appendix 4**.

The principal matters identified through engagement include the cultural significance of Whangārei Te Rerenga Parāoa and Poupouwhenua, mauri and ecological health, mahinga kai and customary use, access to and relationships with the coastal marine area, the effects of reclamation and dredging, cumulative effects, marine ecology and avifauna, and the ongoing role of mana whenua in environmental monitoring and management. Engagement has also addressed opportunities associated with employment, training, capability development and participation in Project related activities.

An interim Cultural Impact Assessment (CIA) has been prepared by Patuharakeke. The interim CIA records Patuharakeke's relationship with the Project area as mana whenua, ahi kā and kaitiaki and identifies concerns regarding permanent modification of Whangārei Te Rerenga Parāoa and Poupouwhenua, ecological and cultural effects, access and relationships with the harbour, cumulative effects and the adequacy of the engagement process to date. It also records that assessment is continuing and that further information, engagement and consideration of mitigation and other responses are required. The interim CIA is included as **Appendix 29** to the application material but, given its confidential cultural content, is not included in the publicly released application material. Relevant matters identified in the CIA are nevertheless referred to and addressed in this application where appropriate.

Further engagement with Patuharakeke occurred on 12 August 2026. Patuharakeke identified additional technical information required to progress its CIA, including information relating to marine ecology, benthic ecology, coastal processes and the concept design, together with the substantive application. That information is being made available to assist completion of the CIA. The parties also discussed the proposed mātaihai reserve and continuing engagement concerning any interface between that process and the Project.

MBIE also met with representatives of Ngāti Tu on 12 August 2026. Ngāti Tu advised that it considers itself to be mana whenua and sought access to the Project technical assessments and raised matters including the environmental effects of the Project, engagement with other tangata whenua groups, the proposed mātaihai reserve and the nature of its future relationship with the Project.

Engagement with mana whenua remains ongoing.

2.7.4 Local authorities and administering agencies

Engagement has been undertaken with the Whangārei District Council (WDC), Northland Regional Council (NRC), Department of Conservation (DOC), NZ Transport Agency Waka Kotahi (NZTA) and Environmental Protection Authority (EPA).

A meeting with WDC representatives was held on 10 June 2026. Discussion addressed the Project and FTAA process, preliminary planning and consenting matters and Council information requirements. Engagement has continued as the Project and application material have developed, including the provision of draft consent conditions to WDC for review and comment.

NRC was formally notified and a meeting with the NRC Consents Manager was held on 12 June 2026. Discussion addressed the FTAA consenting pathway, anticipated consent requirements, environmental assessment requirements and opportunities for continuing technical input. NRC's statutory section 30 notices are included at **Appendix 5**. Draft NRC consent conditions have subsequently been provided to NRC for review and comment.

DOC has participated in meetings concerning the Project's ecological impacts. The matters discussed have included wildlife management, the relationship of the Project to DOC-administered areas and relevant statutory approval requirements. The Project has subsequently been refined and the approvals sought are identified in Section 5.

NZTA reviewed the Integrated Transport Assessment and Operational Traffic Management Plan (OTMP) and provided written comments on 23 July 2026. NZTA advised that it does not oppose the Project on transport grounds, subject to appropriate management of construction traffic and the proposed transport conditions. NZTA further advised that operational effects on State Highway 15 and the relevant intersections are expected to be acceptable on the basis of the proposal assessed, and requested reassessment if the proposed staff parking arrangements materially change. The NZTA correspondence is included at **Appendix 37**.

A pre-application meeting was held with the EPA on 16 July 2026. That engagement concerned the administration and procedural requirements of the FTAA process and preparation for lodgement rather than substantive assessment of the merits or environmental effects of the Project.

2.7.5 Adjacent operators, infrastructure providers and industry stakeholders

Project information has been provided to, and engagement has occurred with, adjacent operators, infrastructure providers and industry participants identified in **Appendix 4**. These include Northport, Channel Infrastructure NZ, KiwiRail, Ferry Holdings, North Tugz, New Zealand Defence Force, Ministry of Social Development, Northtech, Marsden Cove interests and marine service providers.

The more substantive discussions have addressed matters including the relationship between the Project and Northport's existing and consented activities, use and allocation of dredged material, infrastructure interfaces, vessel servicing requirements and operational matters.

Engagement with Northport has been particularly relevant because of the physical and operational relationship between the two facilities and the interface with the Northport resource consents.

2.7.6 Community organisations and other interested parties

MBIE has also engaged with community organisations and residents in the surrounding area, including the Ruakākā Ratepayers Association, Whangārei Heads Citizens Association and representatives of Albany Road residents.

An initial meeting with a representative of the Ruakākā Ratepayers Association was held on 11 July 2026. Matters raised included operational noise and hours, visual effects, recreational use of the harbour, public access and existing jetty and walkway facilities, traffic, road safety and cycling. Further engagement with the Association and members occurred on 11 August.

The Whangārei Heads Citizens Association was provided with Project information and technical material and met with the Project team on 21 July 2026. Discussion included environmental effects, operational noise, landscape and visual effects, residential amenity and community awareness. Additional information was provided to assist the Association in communicating information about the Project to its members.

MBIE met with representatives of Albany Road residents on 2 August 2026. The meeting provided an overview of the Project and an opportunity for residents to identify matters of concern. Initial discussion included potential environmental and amenity effects, and ongoing contact was requested as the Project progresses.

The detailed record of community and other stakeholder engagement is contained in **Appendix 4**.

2.7.7 Key matters raised and Project response

The matters raised through consultation vary between parties, but a number of recurring themes have emerged. These include:

- (a) Cultural values, mauri, customary use and the relationship of mana whenua with Whangārei Harbour and Poupouwhenua;
- (b) Marine ecology, avifauna and other ecological effects, including effects associated with reclamation and dredging;
- (c) Cumulative effects of further modification and industrial development within the harbour;
- (d) Operational and construction noise, including the character and timing of vessel maintenance activities;
- (e) Landscape, visual and residential amenity effects;
- (f) Traffic, road safety and cycling;
- (g) Recreation, public access and fishing facilities;
- (h) Navigation and operational interfaces with existing harbour users and infrastructure; and
- (i) Ongoing participation, monitoring, information sharing and communication.

Those matters have informed the Project design and assessment where relevant. Responses include detailed technical assessment of the matters raised; refinement of the Project design and environmental controls; provision for replacement public access and fishing facilities; construction and operational traffic management; limits and management measures for higher noise activities; ecological, marine

mammal and avifauna management measures; and monitoring, reporting and management plan requirements.

Some matters remain the subject of continuing engagement. In particular, consultation with mana whenua is continuing in relation to cultural effects, cultural monitoring and the appropriate form of mana whenua involvement in environmental monitoring and management. The detailed assessment of environmental and cultural effects and the measures proposed in response are addressed in Section 6.

2.7.8 Continuing engagement

Engagement will continue where appropriate through the FTAA process and, if approvals are granted, through detailed design and implementation of the Project.

This is particularly relevant to the continuing engagement with mana whenua, including consideration of the interim Patuharakeke CIA, potential preparation of a CIA by Ngātiwai, and development of the cultural monitoring and participation provisions.

The proposed conditions and management framework also provide for continuing liaison or participation where relevant to matters such as ecological management.

Appendix 4 provides the detailed consultation record and will be maintained to record material further engagement undertaken before lodgement.

2.8 APPLICATION STRUCTURE

This substantive application is organised as a single integrated report. Sections 1–6 contain the common Project material and integrated assessment of environmental effects (AEE). Section 6 also assesses the positive effects and Project benefits, drawing principally on the Economic Impact Assessment at **Appendix 10** and the Regional and National Public-Interest Benefits Report at **Appendix 36**. Section 7 addresses the resource consent approvals, Section 8 addresses the Wildlife Act approval, and Section 9 provides the overall assessment and conclusion.

3. SITE AND RECEIVING ENVIRONMENT

3.1 PHYSICAL SETTING

The site adjoins the western side of Northport, located at Marsden Point on the southern side of the entrance to the Whangārei Harbour. The harbour is a large, drowned river valley system opening to Bream Bay and the Pacific Ocean. Northport occupies reclaimed land and coastal margins adjacent to deep navigable waters at the harbour entrance.

The wider physical setting of the Project is shown in **Figure 2-1**.

The historic cadastral representation of Allotment 116 Parish of Ruakaka extends into part of the Project footprint. However, the coastal boundary of Allotment 116 was defined as Mean High Water Mark and is therefore ambulatory. Reyburn and Bryant surveyed the current Mean High Water Mark in July 2026 and confirmed that it represents the current coastal boundary of Allotment 116. On the basis of that survey, the Project footprint does not extend into Allotment 116 or the Wildlife Refuge. The surveyor's confirmation and associated plan are contained in **Appendix 38**.

The surrounding environment is characterised by a combination of industrial land and infrastructure, including the CINZ energy terminal and associated facilities, Northport and MMH port and related land and infrastructure, coastal and harbour environments (including intertidal flats, sandbanks, and coastal margins), and further afield, residential settlements (particularly at Whangarei Heads, Ruakākā and Marsden Bay / One Tree Point), and recreational coastal areas, including Marsden Bay and surrounding beaches.

The harbour entrance provides naturally deep water and sheltered conditions, which historically led to the establishment of port activities at Marsden Point. Northport has established and progressively expanded through reclamation and infrastructure development over several decades.

The harbour channels, sandbanks, beaches and coastal margins support ecological, cultural, recreational, landscape and coastal process values. These values occur within a lower harbour environment that has also been substantially modified by

reclamation, dredging, port infrastructure and industrial activity. Both aspects of the receiving environment are addressed in the effects assessment.

3.2 CULTURAL SETTING

3.2.1 General

Whangārei Harbour and the Marsden Point area/Poupouwhenua are of cultural importance to mana whenua. The harbour and surrounding coastal environments form part of the ancestral rohe of several iwi and hapū, including:

- Patuharakeke
- Te Parawhau
- Ngātiwai
- Ngāti Tu

These groups maintain enduring relationships with the harbour and coastal environment through whakapapa, customary practices, and kaitiakitanga responsibilities.

Mapped Sites and Areas of Significance to Tangata Whenua are located at Te Poupouwhenua (Mair and Marsden Banks) and Takahiwai, and further distant, at Mangawhati and Ruakākā. The Project does not extend into any of these mapped sites/areas. Notwithstanding this, engagement undertaken for the Project suggests that tangata whenua interests relate to the Whangārei harbour as a whole, rather than only to recorded archaeological or statutory sites. Matters raised include the mauri and ecological health of the harbour, mahinga kai, customary access, ancestral associations, water quality and the cumulative effects of modification.

Cultural effects are addressed separately in Section 6.19, informed by the cultural information available to MBIE, iwi and hapū planning documents, engagement undertaken for the Project to date, and the proposed conditions for ongoing involvement, monitoring and reporting.

3.2.2 Patuharakeke

Patuharakeke have a long standing and direct association with Poupouwhenua / Marsden Point, Takahiwai and Whangārei Harbour. Patuharakeke have expressed

concerns regarding the cumulative effects of reclamation, dredging, industrialisation and port development on the harbour, including effects on mahinga kai, water quality, access, cultural landscapes, ecological values and the mauri of the coastal environment. Engagement undertaken for the Project has confirmed that these matters remain central to Patuharakeke interests in the Project area.

3.2.3 Te Parawhau

Te Parawhau maintain cultural associations with the Whangārei Harbour and have participated in consultation concerning port development and other coastal activities. Their interests include harbour values, coastal access, water quality, ecological health and the continuing relationship of tangata whenua with the coastal environment.

3.2.4 Ngātiwai

Ngātiwai interests extend across Te Ākau / Bream Bay, Whangārei Harbour, the outer harbour and adjacent coastal waters. Matters identified through engagement include marine ecology, avifauna, marine mammals, coastal processes and customary relationships with the coastal environment.

3.2.5 Iwi Management Plans and Cultural Documents

Several iwi management plans⁴ and cultural documents apply to the Whangārei Harbour environment. These documents articulate cultural values and expectations regarding environmental protection, sustainable management and the recognition of tangata whenua relationships with coastal resources.

3.2.6 Marine and Coastal Area (Takutai Moana) Act

Applications for recognition of customary marine title and protected customary rights have been made under the MACA in relation to parts of Whangārei Harbour and the wider coastal environment. These include applications by Patuharakeke for customary marine title and protected customary rights within its customary marine area. No customary marine title area or protected customary rights area has been

⁴ Patuharakeke Hapu Environmental Management Plan, Te Iwi o Ngatiwai Iwi Environmental Policy Document

recognised within the Project area. Relevant MACA applicant groups have been consulted as part of the engagement undertaken for the Project, as described in Section 2.7.3.

3.2.7 Treaty settlement and customary fishing context

There are no Treaty settlement deeds or Treaty settlement entities directly applicable to the Project area.

Customary fishing arrangements relevant to the area are, however, recognised under the Fisheries Act 1996, including the Fisheries (Kaimoana Customary Fishing) Notice (No. 1) 2009 (No. F482) and the Fisheries (Notification of Tāngata Kaitiaki/Tiaki for Area/Rohe Moana of Ngāti Kahu, Te Parawhau, Ngāti Tu and Patuharakeke) Notice 2021 (Notice No. MPI 1353). Relevant notification undertaken in relation to those arrangements is addressed in Section 2.7.3. An assessment under the Fisheries Act is provided in Section 6.19.3.

3.3 EXISTING PORT ACTIVITIES

Immediately adjacent to the Project, Northport is an operational multi-purpose commercial port supporting regional, national, and international trade. Existing activities include:

- Container handling and storage;
- Log storage and export;
- Bulk cargo handling (including woodchip and other commodities);
- Cruise vessel visits; and
- Associated port services, including pilotage, tug operations, biosecurity, and customs functions.

Port operations occur on a 24-hour basis and are supported by marine and land based infrastructure, including wharves, storage areas, lighting, stormwater systems, and access roads.

Northport holds resource consents authorising an eastern expansion of its operations, including reclamation, dredging, stormwater discharges, tug and fishing facilities, and public access works. Those authorised but unimplemented activities

form part of the existing and reasonably foreseeable environment. The relevant consents are included at **Appendix 31**.

In accordance with section 30 of the FTAA, Northland Regional Council has identified one existing resource consent, being consent AUT.005055.39.01. A notice pursuant to section 30(5) FTAA has been provided in respect of that existing resource consent (see **Appendix 5**).

Northport has also lodged application APP.005055.02.03 with the Northland Regional Council for replacement resource consents authorising capital dredging, deposition of dredged material and associated discharges. The dredging sought through that application overlaps, in whole or in part, with dredging proposed for the Project. Unlike the operative consents described above, APP.005055.02.03 is a pending application. Its potential status as a competing application under the FTAA is addressed in Section 5.8.2.

This application does not seek to change or cancel any condition of those consents. Any separate condition variation, consent holder approval, infrastructure agreement or other authorisation required for a Project interface will be addressed outside this application.

3.4 SURROUNDING LAND ENVIRONMENT

The location of adjacent property owners and occupiers in the surrounding land environment is shown in **Appendix 40**.

3.4.1 Northport Industrial Land

Northport (through its sole shareholder Marsden Maritime Holdings Ltd and ultimate holding company, Northport Group Ltd) owns around 180ha of industrial zoned land behind the existing port. This land is intended to support port related industries and logistics activities associated with the wider Marsden Point industrial area. As described below, part of this land is proposed to be utilised for access and car parking necessary for the Project.

3.4.2 Channel Infrastructure NZ

The CINZ energy terminal (formerly refinery) is located to the east of Northport and provides fuel import and distribution infrastructure. The facility includes jetties, pipelines and storage tanks. The CINZ site is zoned 'Marsden Point Energy Precinct' in the WDP and, following the recent transition away from refining, CINZ has publicly announced its intention to explore other potential alternative energy related uses, including biorefining.

3.4.3 Other Industrial Uses

The Marsden Point industrial area contains a range of existing and proposed industrial uses, reflecting its strategic role in supporting regionally significant infrastructure (RSI) and industrial activities. This includes the 230 GWh Ruakākā Solar Farm owned by Meridian Energy Ltd.

3.4.4 Rural Uses

Areas further inland from the port and industrial precinct are predominantly rural, including pastoral farming and lifestyle properties.

3.4.5 Residential Communities

Small residential settlements are located in the wider environment, including:

- Ruakākā
- Marsden Bay / One Tree Point
- Marsden Cove
- Reotahi

These communities contain a mixture of permanent residents and holiday homes.

3.5 COASTAL PROCESSES

3.5.1 General

The existing environment, as it relates to coastal processes, is described in the Coastal Processes Assessment at **Appendix 13**.

Coastal processes are relevant to the Project because the proposed reclamation, dredging and marine structures have the potential to affect waves, currents,

sediment movement, shoreline behaviour and the long-term stability of the surrounding coastal environment.

The application site is located on the southern side of the lower Whangārei Harbour, immediately west of the existing Northport facility and east of Marsden Bay and Blacksmiths Creek. The wider environment includes the harbour entrance, lower harbour, Marsden Bay, Blacksmiths Creek, Snake Bank, McDonald Bank, Mair Bank and the wider ebb tide delta system at the entrance to Bream Bay, as shown in **Figure 3-1**.

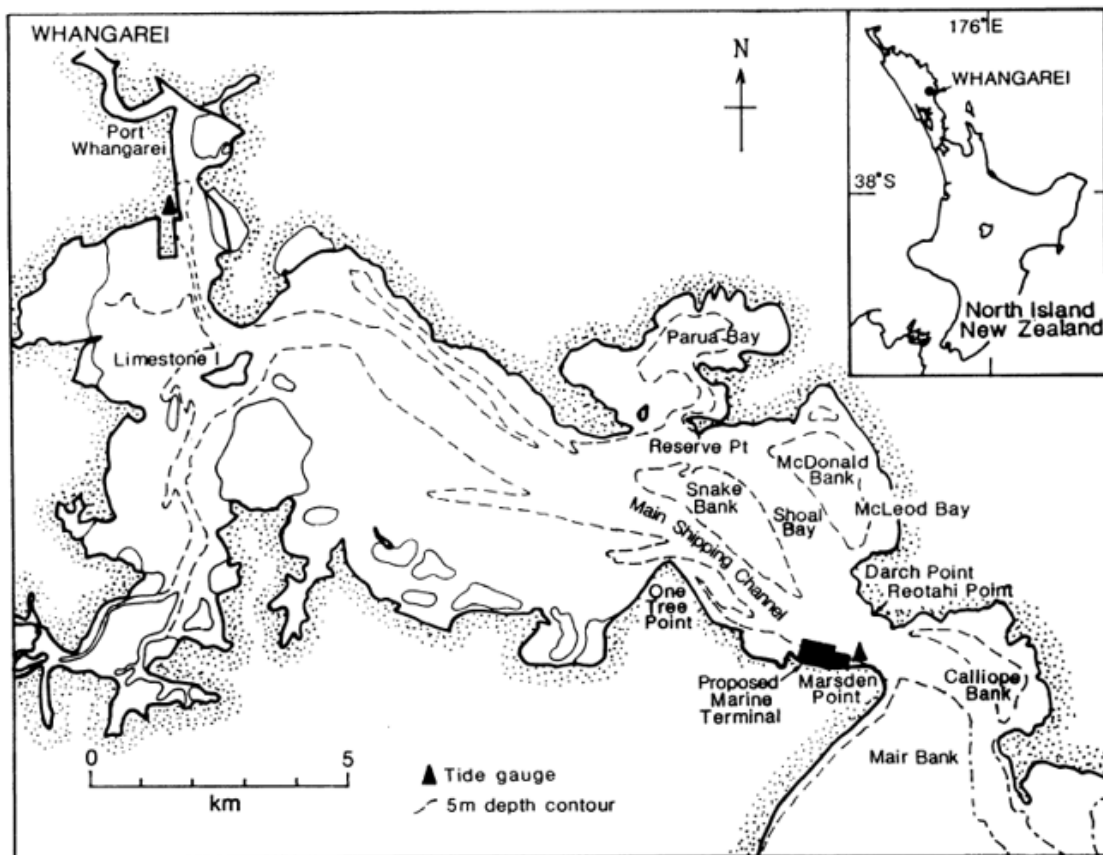


Figure 3-1: Principal coastal process features of the lower Whangārei Harbour

Whangārei Harbour is a meso-tidal drowned river valley estuary. The harbour entrance is relatively narrow and is bounded by the rocky Whangārei Heads landform to the north and the sandy Marsden Point / Ruakākā barrier system to the south. This configuration gives rise to a tide dominated inlet system, where tidal exchange through the harbour entrance is the principal driver of currents, channel morphology and sediment movement.

Coastal processes operate across the connected harbour entrance and lower harbour system, although conditions differ markedly between the energetic tidal inlet and sheltered Marsden Bay. Strong ebb and flood currents occur at the entrance, while sediment movement in Marsden Bay is primarily influenced by occasional wind generated waves at high tide, local tidal flows and Blacksmiths Creek.

3.5.2 Harbour Entrance, Channels and Sand Banks

The lower harbour and entrance area include a series of channels, intertidal banks, subtidal shoals and sediment transport pathways. Key coastal process features include the main harbour entrance channel, Mair Bank (and the adjoining Marsden Bank) on the southern side of the entrance, Snake Bank and McDonald Bank within the lower harbour, and the wider ebb tide delta extending seaward into Bream Bay.

The harbour entrance is considered to be broadly stable at the geomorphic scale. This stability reflects the dominance of tidal exchange over net longshore sediment transport, the sheltering influence of Whangārei Heads and the ebb tide delta, and the presence of shell material in parts of the inlet bed, which provides a degree of armouring to underlying sandy sediments. While local bedforms and shoal margins can move over time, the broad entrance morphology has remained relatively stable. Tidal currents are strongest within and near the harbour entrance. Previous modelling and studies indicate peak depth averaged velocities in the constricted inlet of approximately 1.1 m/s to 1.3 m/s during spring tides, with stronger tidal streams in some localised areas. Current velocities generally reduce further into the harbour.

3.6 MARINE ECOLOGICAL VALUES

3.6.1 Overview

The marine ecological environment is described in the Marine Ecology Assessment at **Appendix 15**. The assessment addresses the marine ecological values of the Project area and wider receiving environment. Avifauna, marine mammals and marine biosecurity are addressed separately.

The assessment draws on a desktop review of available information, particularly the recent sampling and empirical testing undertaken for Northport⁵ together with additional survey and analysis, including a rapid intertidal survey of Marsden Bay, a comprehensive quantitative survey of benthic macrofauna in Marsden Bay, and video survey work of subtidal habitats around Northport.

3.6.2 Whangārei Harbour and Outer Harbour Context

Whangārei Harbour supports a diverse range of marine habitats and ecological communities. The harbour contains extensive intertidal and subtidal areas, including sandy intertidal flats, shallow subtidal soft-sediment habitats, shell-gravel habitats, macroalgae meadows, seagrass beds, shellfish beds, reef communities and biogenic habitats. These habitats support a diverse assemblage of benthic macroinvertebrates, fish and other marine fauna.

Existing and consented activities include port and marina operations, reclamation, dredging, navigation channels, coastal structures, stormwater discharges, recreational boating, fishing and shellfish gathering. The Project area is therefore modified, although it remains part of a harbour containing high value marine habitats.

The outer harbour and entrance area is particularly relevant to the Project. This area contains diverse physical habitats, including intertidal sandflats, subtidal sand and shell-gravel areas, macroalgae meadows and biogenic habitats. The marine ecology assessment identifies that subtidal habitats around Northport contain high ecological values, including diverse benthic communities and habitat forming features such as shell material, macroalgae, sponges, bryozoans, hydroids, ascidians, starfish and other sessile organisms.

3.6.3 One Tree Point to Marsden Bay Significant Ecological Area

The One Tree Point to Marsden Bay SEA is located immediately west of Northport and is directly relevant to the Project. The SEA comprises shallow intertidal and subtidal sandy soft-bottom habitats. The values identified for the SEA include shellfish and

⁵ Northport supports the Project and has provided its agreement to the use of this data and reporting.

seagrass communities, associated benthic invertebrates, shorebird feeding habitat, and nursery and feeding habitat for coastal fish species.

The Project footprint overlaps part of the One Tree Point to Marsden Bay SEA. The SEA classification reflects the ecological significance of these habitats and is relevant to the assessment under the RPN. The Marine Ecology Assessment records that adjoining areas of Marsden Bay contain habitats of similar character and value.

Other SEAs are also present within Whangārei Harbour, including the Snake Bank SEA, and the Mair Bank / Marsden Bank SEA. These areas contribute to the wider ecological significance of the harbour entrance and outer harbour system.

3.6.4 Intertidal Habitats and Shellfish Values

The intertidal areas of Marsden Bay contain sandy soft-sediment habitats that support a diverse macrofaunal community. The marine ecology assessment records that Marsden Bay contains a particularly diverse intertidal macrofaunal community, with up to approximately 100 taxa reported from surveys in the area.

The intertidal area west of Northport includes areas of high biological activity. Features recorded within and near the Project footprint include burrows, excavation mounds, ray feeding pits, bird foraging evidence and tracks of mobile macrofauna. These features indicate that the mid to lower intertidal area provides active feeding and habitat functions for a range of marine fauna and birds.

Cockles are widespread within Marsden Bay and occur at moderate to very high abundances across parts of the mid shore. Most cockles recorded in the recent surveys were below harvestable size. Pipi are more localised, with a juvenile pipi bed present in the mid-shore zone west of Northport. That bed extends approximately 300 m from the existing revetment in a band approximately 50 m wide, with mean densities of around 300 pipi/m². The juvenile pipi bed straddles the eastern boundary of the One Tree Point to Marsden Bay SEA and part of the proposed reclamation / bird roost footprint.

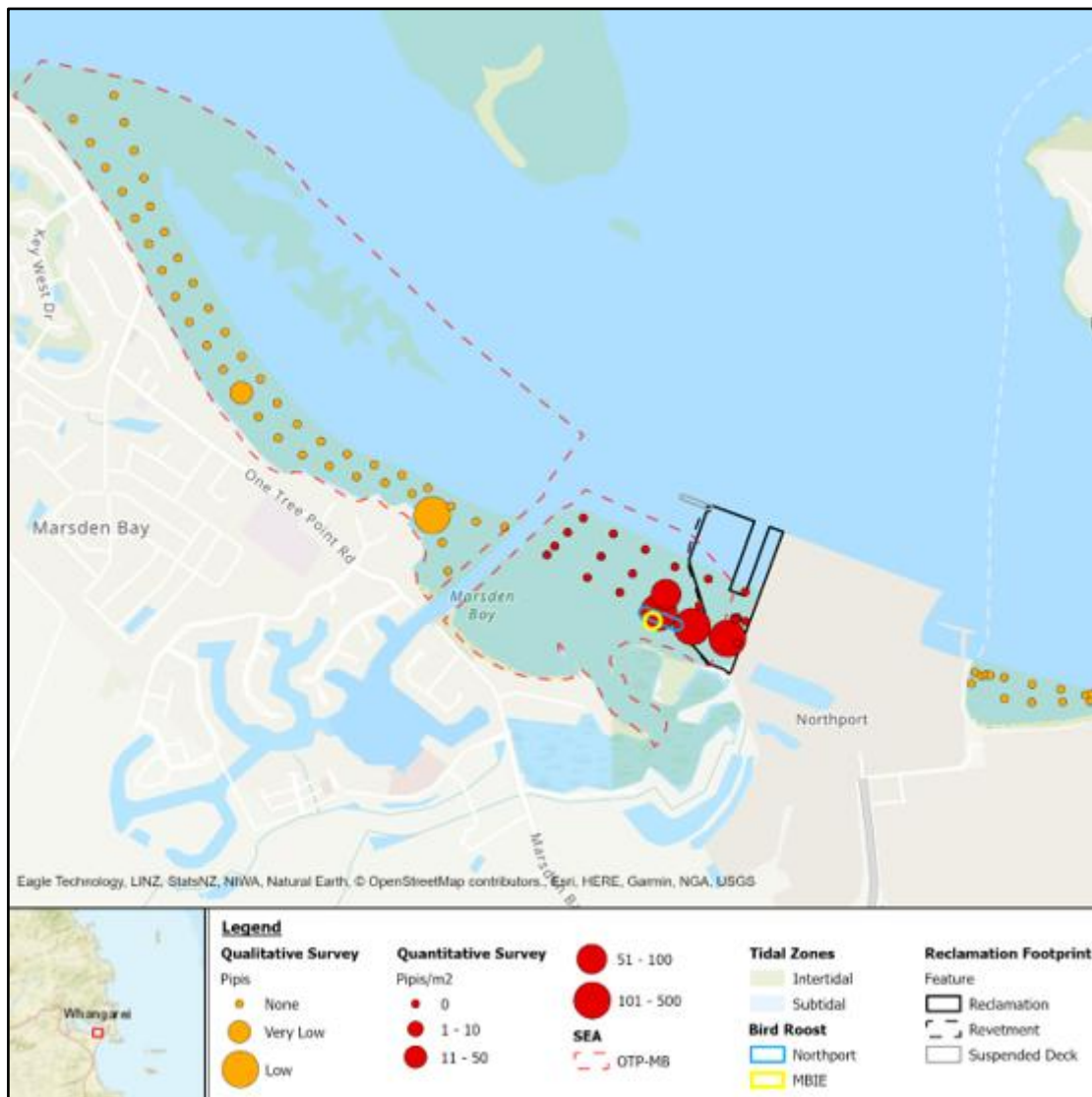


Figure 3-2: Project footprint and juvenile pipi bed

Small areas of seagrass and mangroves are also present within and near the Project footprint (see **Figure 3-3** below). The marine ecology assessment identifies approximately 0.16 ha of seagrass within the proposed reclamation area in 2024, together with approximately 0.03 ha of mangroves. Seagrass is listed as At Risk under the New Zealand Threat Classification System. The report notes that seagrass is a native non-endemic species, is secure overseas, and is subject to extreme fluctuations.

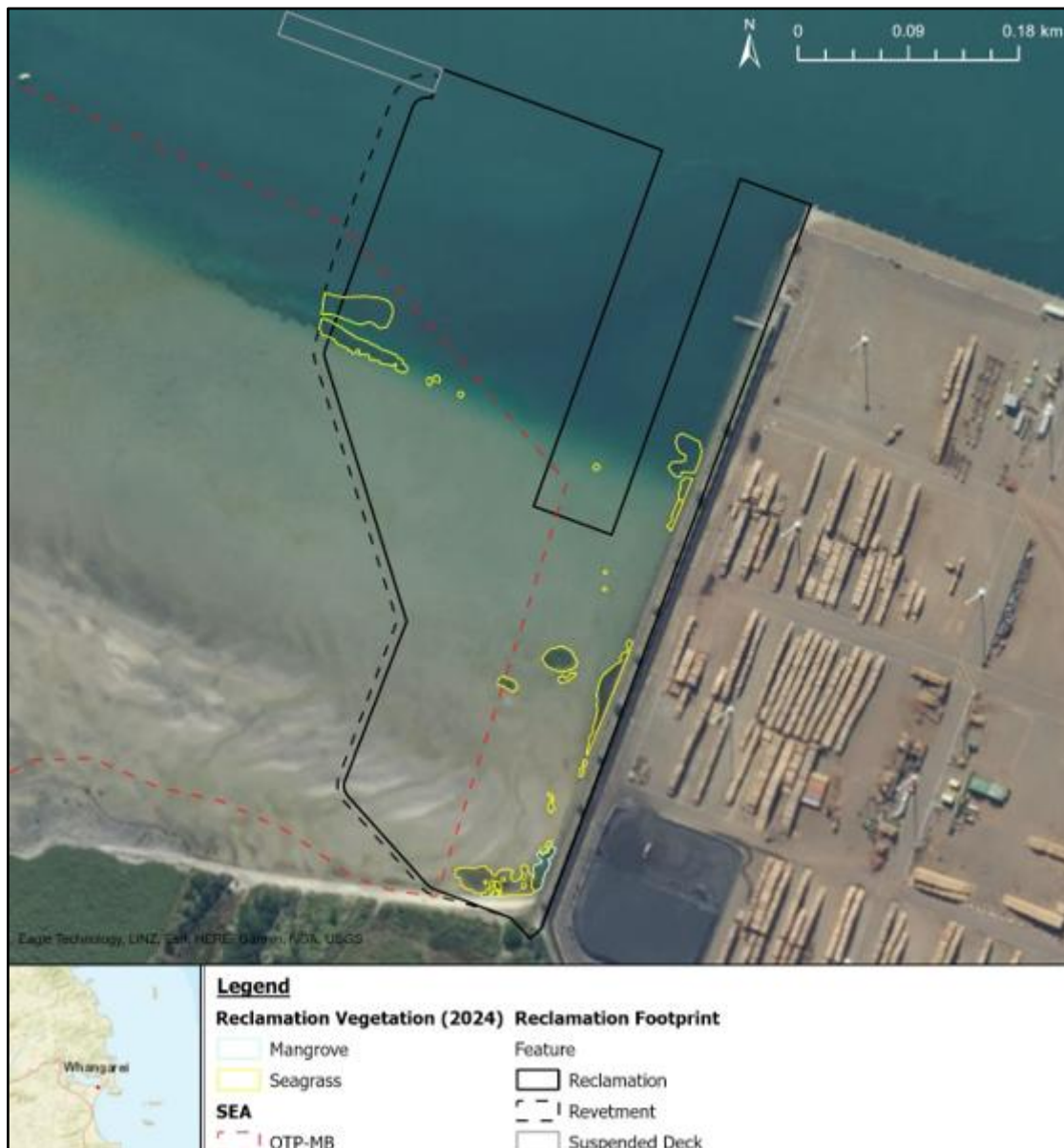


Figure 3-3: Project footprint and principal intertidal ecological features

Overall, the intertidal habitat within the Project footprint forms part of the wider Marsden Bay intertidal system and has high ecological value. Its values include benthic diversity, shellfish habitat, seagrass and mangrove features, shorebird foraging values, fish feeding values, and general ecosystem functions associated with productive intertidal flats.

3.6.5 Subtidal Habitats and Benthic Communities

The subtidal habitats around Northport and Marsden Bay are of high ecological value. The marine ecology assessment identifies a range of subtidal habitat types within and near the proposed reclamation and dredging areas, including sand,

shell-gravel substrates, dense patches of red algae, macroalgae meadows, scattered sponges, starfish, hydroids, bryozoans, ascidians and other sessile organisms.

Video survey work identified that the seabed in parts of the outer harbour and around Northport contains diverse and spatially variable benthic habitats. These include areas of shell material, algae covered substrates, macroalgae meadows and biogenic features. Such habitats provide substrate, shelter, food and refuge for a range of invertebrates and fish.

The subtidal benthic communities around Northport are diverse. The marine ecology assessment records that subtidal sampling around the port identified a very high diversity of benthic macroinvertebrates. The presence of shell-gravel substrates, macroalgae, sessile organisms and other biogenic features contribute to the ecological value and habitat complexity of these areas.

The affected subtidal area includes high value benthic habitat, habitat forming species and feeding and refuge functions for invertebrates and fish.

3.6.6 Reef Habitat

Natural rocky reef habitat is a relatively limited component of the Whangārei Harbour, with most natural reef habitat occurring around the northern coastline and towards the harbour entrance. However, the existing Northport revetment provides artificial rocky reef habitat. Although artificial, the revetment has been colonised by marine species typical of north-eastern New Zealand reef environments.

The existing revetment supports intertidal and subtidal reef associated species, including macroalgae, gastropods, sponges, ascidians, echinoderms, crustaceans and other marine invertebrates. The revetment also provides habitat for reef associated fish species. While the revetment is an artificial structure, it contributes to the local diversity of marine habitats around Northport. It is important to record that the Project design includes rock revetment around the coastal perimeter of the proposed reclamation.

3.6.7 Fish Values

Whangārei Harbour supports a diverse assemblage of fish species. The habitats around Northport and Marsden Bay provide feeding, refuge and nursery functions for a range of fish, including species associated with soft-sediment habitats, reef habitats, subtidal biogenic habitats and intertidal feeding areas.

Fish species observed around Northport include leatherjackets, red moki, spotty, sweep, triplefins, kingfish, jack mackerel, two spot demoiselle and goatfish. Other fish species using the wider harbour include snapper, trevally, parore, kahawai, rays, flounder and mullet. The intertidal flats west of Northport also provide feeding habitat for rays, as indicated by ray feeding pits recorded in the area.

No fish species recorded in the area are identified as Threatened or At Risk. However, the habitats used by those species contribute to the broader ecological functioning of Marsden Bay and the outer harbour, including by providing feeding and nursery habitat.

3.6.8 Summary of Marine Ecological Values

The principal marine ecological values relevant to the Project are:

- The One Tree Point to Marsden Bay SEA;
- High value intertidal and subtidal benthic habitat;
- The juvenile pipi bed west of Northport;
- Small areas of seagrass and mangroves;
- Artificial reef habitat on the existing revetment; and
- Feeding and nursery habitat for fish and shorebirds.

The effects on these values are assessed in Section 6.7.

3.7 AVIFAUNA

3.7.1 Overview

The avifauna environment is described in the avifauna assessment in **Appendix 16**.

The lower Whangārei Harbour supports a diverse assemblage of coastal and marine avifauna associated with intertidal flats, subtidal habitats, coastal margins, and

adjacent wetland systems. These habitats provide important feeding, roosting and breeding environments for a range of indigenous species, including species classified as Threatened and At Risk under the New Zealand Threat Classification System.

The Project site is at Marsden Bay near the harbour entrance. Port and industrial development has modified the immediate coastal margin, but the lower harbour continues to support SEAs, Significant Bird Areas (SBAs) and habitat used by Threatened and At Risk species.

Immediately to the south-west of the site is the Blacksmiths Creek Wildlife Reserve, which comprises estuarine, wetland and terrestrial habitats supporting marshbird species and contributing to the overall ecological context of the area.

3.7.2 Species composition and ecological values

The Whangārei Harbour supports a high diversity of avifauna, with a total of 107 bird species recorded, including:

- 75 native species (including Threatened and At Risk taxa);
- 23 introduced species;
- Six migratory species; and
- Three vagrant species.

Of the native species, a substantial proportion are associated with coastal and estuarine environments, including wading birds, gulls, terns, shags, herons, and marshbirds.

Targeted field investigations in the vicinity of the Project site recorded 22 coastal and estuarine species, including:

- Threatened species such as northern New Zealand dotterel, Caspian tern, reef heron and black-fronted tern; and
- At Risk species including bar-tailed godwit, lesser knot, red-billed gull, South Island pied oystercatcher (SIPO) and white-fronted tern.

These species represent a range of ecological guilds, including:

- Intertidal foraging waders (e.g. godwit, knot, oystercatchers),
- Coastal surface feeders (e.g. gulls, terns),
- Shallow water foraging species (e.g. herons, spoonbills), and
- Wetland dependent marshbirds (e.g. bittern, banded rail).

The presence of Threatened and At Risk species results in a number of taxa within the Project's wider zone of influence being of Very High, High or Moderate ecological value when assessed in accordance with Environment Institute of Australia and New Zealand (EIANZ) criteria.

3.7.3 Habitat and ecological context

Intertidal and coastal habitats

The intertidal environment of the Whangārei Harbour is extensive, comprising approximately 4,600 hectares of intertidal flats, with the lower harbour dominated by sandy substrates supporting shellfish beds and invertebrate communities.

These habitats provide key feeding resources for shorebirds, including:

- Cockle and pipi beds,
- Polychaete rich sediments, and
- Seagrass associated invertebrate communities.

To the west of Northport, the Marsden Bay–One Tree Point SEA comprises approximately 198 hectares of intertidal and subtidal habitat, recognised as ecologically significant due to its productivity and habitat function.

Macroinvertebrate surveys indicate that:

- The western coastal margin generally supports higher abundance and diversity of benthic fauna than areas immediately adjacent to and east of Northport; and
- The intertidal habitats near the Project footprint are comparatively lower in abundance and diversity.

Wetland and estuarine habitats

Blacksmiths Creek and associated wetlands provide important habitat for marshbird species, including:

- Australasian bittern (Threatened – Nationally Critical),
- Banded rail, spotless crane and fernbird (all At Risk – Declining).

These habitats comprise mangrove, saltmarsh and rushland vegetation, supporting species that rely on dense cover and are largely absent from more modified coastal margins.

Coastal margins and modified environments

Existing built environments, including Northport and adjacent industrial areas, also support avifauna.

Open areas, grassed margins and engineered structures (e.g. revetments) provide:

- Roosting habitat,
- Occasional nesting opportunities (e.g. for dotterel, oystercatcher and pied stilt), and
- Supplementary foraging areas for some species.

However, these habitats are highly modified and subject to ongoing disturbance.

3.7.4 Habitat use and spatial patterns

Local site context

The coastal margin adjacent to the Project site (identified as the “West 3” compartment in survey data) (see **Figure 3-4** below) supports low- and mid-tide foraging, high-tide roosting and a range of coastal species, including Threatened and At Risk birds. However, it supports comparatively lower bird abundance and density than adjacent areas, particularly those further west.

Survey data demonstrate that bird densities and species richness are generally higher in western compartments (e.g. West 2 and Blacksmiths Creek), and the Project footprint supports only a small proportion of the birds present across the wider Marsden Bay coastal area.

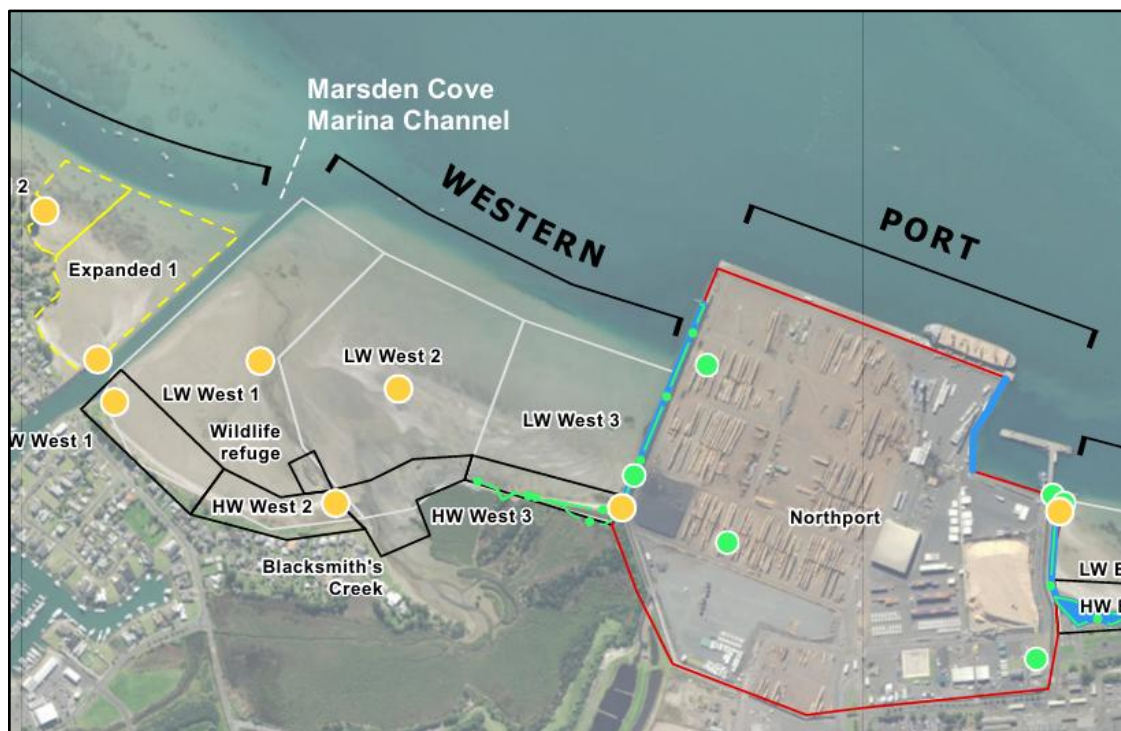


Figure 3-4: Coastal avifauna survey locations and compartments

Wider harbour use

The Whangārei Harbour supports multiple feeding and roosting areas distributed along its length. Key patterns include:

- High tide roosts located at sites such as Blacksmiths Creek, Marsden Bay and Ruakākā;
- Extensive use of intertidal flats for feeding, particularly by migratory waders; and
- Spatial distribution of species across multiple sites, providing functional redundancy within the harbour system.

For several key species (e.g. SIPO, variable oystercatcher (VOC), bar-tailed godwit and lesser knot), the harbour supports regionally important populations, although these are generally dispersed across a number of sites rather than concentrated within the Project area.

3.7.5 Breeding and roosting behaviour

Breeding activity within the marine environment is relatively limited but includes:

- Nesting by variable oystercatcher, northern New Zealand dotterel and pied stilt on coastal margins and modified areas, including within the existing Northport site; and
- Breeding by seabirds and gulls at locations elsewhere within the harbour and surrounding coast.

High tide roosting occurs at discrete sites across the harbour, including:

- Blacksmiths Creek and adjacent coastal margins;
- Marsden Bay; and
- other established roosting locations identified in long-term surveys.

The Project area itself is not identified as a primary roosting site when compared to these other locations.

The mapped avifauna habitat and management areas are shown in **Figure 3-5**. These include the western shipyard footprint, proposed high tide roost, potential kororā habitat, shorebird nesting habitat, cryptic-marshbird disturbance zone, Significant Bird Area – Critical Bird Habitat, and recorded nesting locations for northern New Zealand dotterel, variable oystercatcher and pied stilt.



Figure 3-5: Avifauna nesting habitat, recorded nesting locations and management areas

3.7.6 Summary

The Project footprint is used by Threatened and At Risk coastal birds for feeding, roosting and, in some locations, nesting. Bird abundance and species richness are generally greater in the western Marsden Bay and Blacksmiths Creek compartments than within the footprint itself. The principal issue for the application is the effect of habitat loss and disturbance on northern New Zealand dotterel and other shorebirds, as assessed in Section 6.8.

3.8 MARINE MAMMALS

3.8.1 General

The marine mammal environment is described in the Marine Mammal Assessment at **Appendix 17**. The assessment considers the marine mammal species that use Whangārei Harbour, Te Ākau / Bream Bay and the wider north-eastern coastal waters of the North Island.

Marine mammals are addressed separately from the marine ecology assessment because the relevant receiving environment for marine mammals extends beyond the immediate Project footprint. Marine mammals using Whangārei Harbour and Bream Bay form part of wider coastal populations that range along, or migrate past, the north-eastern coast of the North Island. The assessment therefore considers the Project area in the context of species' regional and national distributions, rather than simply by reference to records within the immediate works area.

3.8.2 Regional and Harbour Context

A large proportion of New Zealand's marine mammal species live in, or migrate through, the north-eastern coastal waters of the North Island. At least 27 cetacean species and two pinniped species have been recorded along this coast.

Several marine mammal species are known to visit Whangārei Harbour, Bream Bay and nearby coastal waters. The species most relevant to the Project are bottlenose dolphins, common dolphins, orca and Bryde's whales. Other species that may occur less frequently or seasonally include New Zealand fur seals, leopard seals, southern right whales and humpback whales.

Recent visual and acoustic monitoring in Te Ākau / Bream Bay and Whangārei Harbour provides additional context for the assessment. That information indicates that dolphins and some whale species frequent the broader Bream Bay / Whangārei coastal environment, with harbour use varying by species and season. The harbour entrance and lower harbour are therefore relevant as part of a broader movement and foraging environment, rather than as an isolated project footprint based habitat. Available information does not identify the Project footprint as unique feeding, breeding, resting or nursery habitat for marine mammals. The lower harbour is instead used intermittently by animals moving through or foraging within the wider north-eastern coastal environment.

The existing environment is already modified by port, industrial, commercial shipping and recreational boating activities. Marine mammals using the harbour and wider Bream Bay area are therefore already exposed to a range of anthropogenic activities, including vessel movements, port activity, navigation infrastructure and underwater noise. Notwithstanding that modified context, the harbour and wider coastal area remain relevant because they are periodically used by threatened or at-risk marine mammal species.

3.8.3 Species Potentially Present

The species most likely to be affected by the Project are summarised below.

Bottlenose dolphins are known to range along the north-eastern coast of the North Island. Sightings near Whangārei occur mainly in spring and early summer. Bottlenose dolphins are classified as Nationally Endangered and are therefore relevant to the assessment of effects and to Policy 11 of the NZCPS.

Common dolphins occur year-round along the east coast of the North Island, including the wider coastal waters between the Bay of Islands and the Hauraki Gulf. Common dolphins are not classified as threatened, but their presence remains relevant because they may be exposed to construction noise if present near the harbour entrance or lower harbour during marine works.

Orca are sighted along the coastline between the Bay of Islands and the Hauraki Gulf and may enter enclosed harbour environments while foraging. Orca are classified

as Nationally Critical. Their tendency to forage in and around harbours makes them relevant to harbour based marine infrastructure projects, even though individuals are not expected to remain within Whangārei Harbour for extended periods.

Bryde's whales are reported in the wider area, particularly during late spring and summer, and generally move through offshore waters between the Bay of Islands and Hauraki Gulf. Bryde's whales are classified as Nationally Critical in New Zealand waters. Their more offshore tendencies mean they are less likely to enter the harbour, but they remain relevant because of their conservation status and regional occurrence.

New Zealand fur seals occur within the wider north-eastern coastal environment and are occasionally recorded in the Whangārei region. Their presence in the immediate Project area is expected to be occasional rather than regular.

Leopard seals may occur as occasional visitors, including within the Whangārei Harbour and nearby marina environments. The number of reported sightings may reflect repeated observations of a small number of individuals. Leopard seals remain relevant because individuals may use harbour or marina environments.

Southern right whales migrate through New Zealand coastal waters during winter and spring and may use shallow, protected coastal waters, particularly when calving. Southern right whales are classified as At Risk – Recovering.

Humpback whales migrate through Northland waters, particularly during their south-bound migration with calves in spring and early summer. Humpback whales generally travel more directly between headlands, but may occasionally enter harbours or bays.

Other offshore species, including pilot whales, sperm whales, false killer whales, beaked whales, pygmy sperm whales and blue whales, may occur in the broader area, but are less likely to be directly affected by the Project.

3.8.4 Summary

Marine mammals use Whangārei Harbour and Te Ākau / Bream Bay with differing frequency and seasonality. The principal Project related issue is the potential for

underwater construction noise, particularly impact piling, to affect animals using or approaching the harbour. This is assessed in Section 6.10.

3.9 LANDSCAPE SETTING

3.9.1 General

The landscape, natural character and visual environment is described in the Landscape Assessment at **Appendix 19**.

The lower Whangārei Harbour includes the port and industrial shoreline at Marsden Point, open harbour waters, residential and recreational coastal margins at Marsden Bay, One Tree Point and Marsden Cove, and the prominent landforms and settlements of Whangārei Heads.

The Project site is located at the western end of the existing Northport facility, at the interface between the established port environment and Blacksmiths Creek. Blacksmiths Creek currently provides a physical and visual buffer between existing port operations and the residential and recreational environments of Marsden Bay, Marsden Cove and One Tree Point to the west. That interface is important to the existing landscape setting because it contributes to the current separation between the working port edge and the more open harbour waters and coastal reserve environments of Marsden Bay.

The existing Northport facility and the adjacent CINZ facility are dominant features of the southern harbour edge. They include wharves, reclamation, port lighting, vessels, log and cargo storage areas, fuel storage tanks, pipelines, stacks and other industrial structures. These elements strongly influence views from parts of Whangārei Heads, Reotahi, Marsden Bay, One Tree Point and the wider harbour.

At the same time, the wider harbour setting retains substantial landscape and amenity values. These values are principally associated with the open harbour waters, the volcanic landforms of Whangārei Heads, including Mt Manaia, Mt Aubrey, Taurikura, Mt Lion, Home Point, Busby Head and Bream Head, and the sequence of coastal bays, reserves and settlements on the northern side of the harbour. From Marsden Bay and One Tree Point, views across the harbour are strongly influenced

by the contrast between the open water, the Whangārei Heads landforms and the existing port and industrial development at Marsden Point.

The most sensitive local landscape receiving environment for the Project is the Marsden Bay / Albany Road / Blacksmiths Creek area. From this area, the Project would be experienced as a closer and more direct westward extension of the existing port edge. This local setting is therefore relevant to the assessment because the proposal would alter the existing relationship between the port, Blacksmiths Creek, the open waters of Marsden Bay and views toward Whangārei Heads.

The wider harbour receiving environment is also relevant, but the Project would generally be seen from more distant viewpoints in association with the existing Northport and CINZ facilities. From those wider locations, the port and industrial components of Marsden Point already form part of the established landscape context.

3.9.2 Mapped landscape and natural character areas

The RPN and the WDP identify a number of mapped landscape and natural character areas within the wider Whangārei Harbour and Marsden Point environment – see **Figure 3-6** and **Figure 3-7** below.



Figure 3-6: Landscape and natural character areas in the Whangārei District Plan.

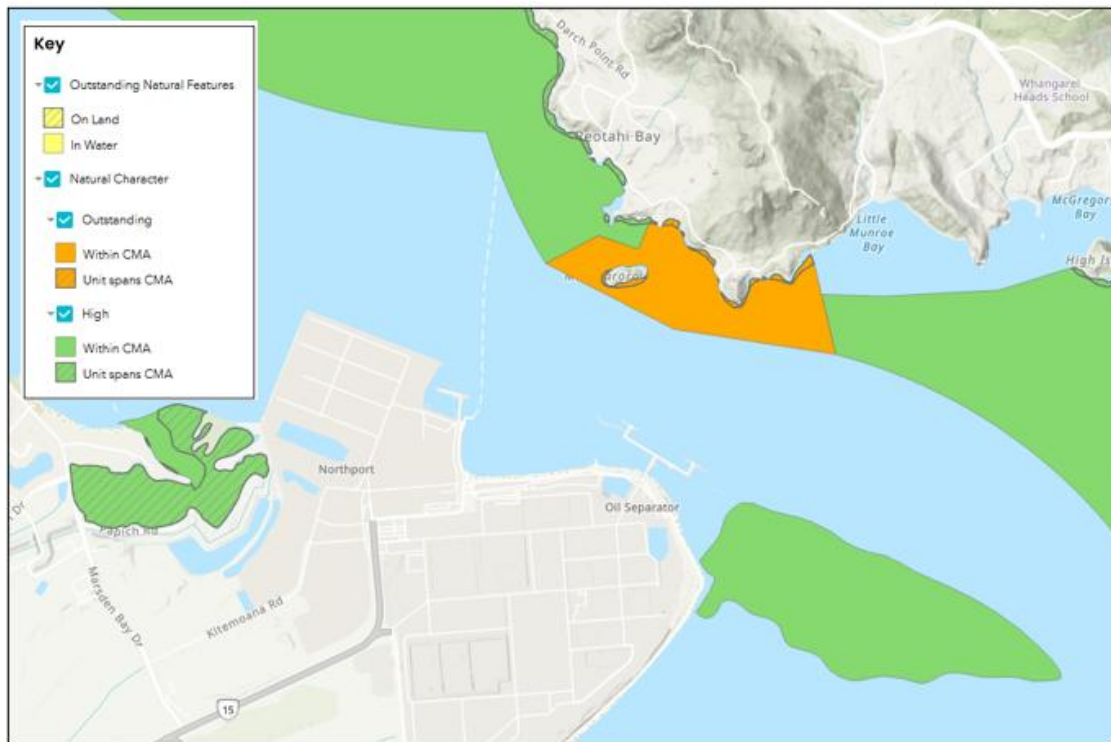


Figure 3-7: Landscape and natural character areas in the Regional Plan for Northland.

The Project site itself is not located within an Outstanding Natural Landscape or an Outstanding Natural Character area. However, a number of mapped high value landscape and natural character areas are located within the wider receiving environment. These include:

- Outstanding Natural Landscapes associated with the coastal hills and ridges that frame the northern side of Whangārei Harbour, including Taurikura, Mt Lion, Busby Head and the coastal ridges extending from Smugglers Bay to Bream Head;
- Outstanding Natural Landscapes associated with Mt Manaia, Mt Aubrey and Taurikura, directly opposite Marsden Point and the existing port;
- A Notable Landscape / Outstanding Natural Landscape area associated with the Bream Bay beachfront and dune corridor south of the CINZ facility;
- Outstanding Natural Character areas associated with the eastern seaward slopes and bluffs of Mt Aubrey near Lort Point, and the seaward slopes and bluffs from Smugglers Bay through to Bream Head;
- High Natural Character areas within the harbour, including areas associated with Calliope Bank, part of Mair Bank and other harbour margins; and
- A High Natural Character area within Blacksmiths Creek.

The Landscape Assessment considers effects at two scales. At the wider harbour scale, the Project will be seen in association with the established Northport and CINZ facilities. At the local scale, it will extend the port edge towards Marsden Bay and Blacksmiths Creek, where coastal reserves, vegetation, residential outlook and views towards Whangārei Heads are more sensitive to change. The effects are assessed in Sections 6.14–6.16.

3.10 ARCHAEOLOGY

3.10.1 General

The existing archaeological environment is described in the Archaeological Assessment at **Appendix 20**.

The wider One Tree Point / Marsden Point area has a long history of Māori occupation and coastal resource use. Archaeological investigations in the wider area demonstrate the widespread nature of Māori settlement and seasonal resource use in the coastal environment, particularly through midden deposits associated with shellfish gathering and processing.

3.10.2 Recorded Archaeological Sites

Twenty archaeological sites are recorded within 1 km of the Project area. These sites are all midden deposits, with one recorded as midden / pit. The recorded sites are located outside the proposed development footprint, predominantly to the south-west of the proposed shipyard and drydock facility (see **Figure 3-8** below).

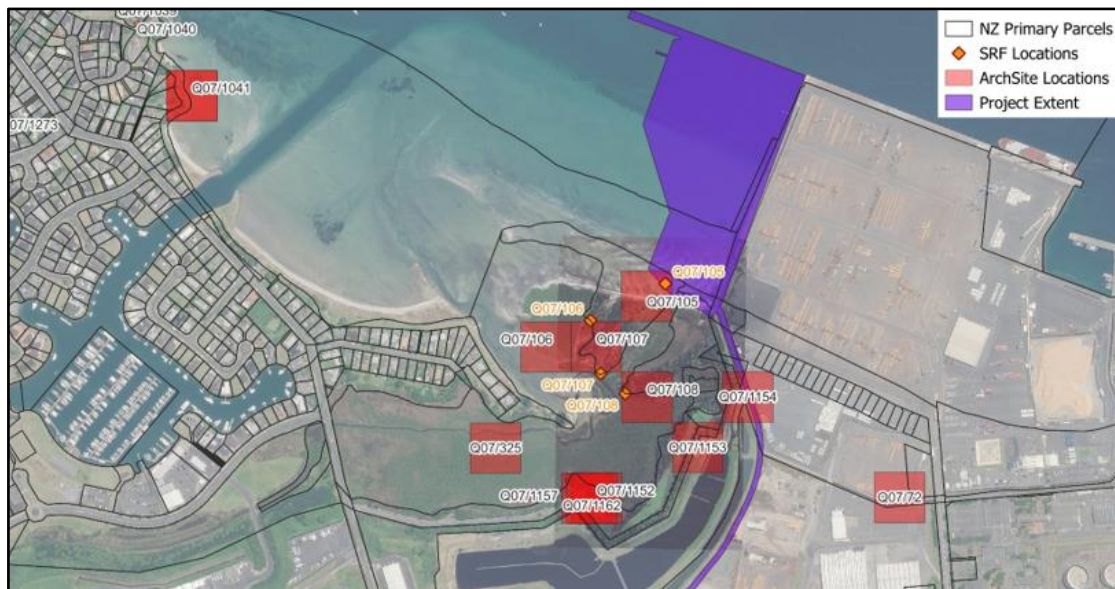


Figure 3-8: Recorded archaeological sites in the vicinity of the project

No archaeological sites are recorded within the proposed development footprint. No archaeological sites are recorded within the adjacent marine area. Given the extent of historical modification associated with reclamation, dredging, port development and ongoing port maintenance activities, the potential for intact archaeological deposits to survive within the proposed marine works area is considered low.

A field survey did not identify any archaeological sites or features within the Project area. While shell material was observed on the beach and within the dunes, this was interpreted as natural beach derived shell rather than archaeological material.

3.10.3 Archaeological Sensitivity

The Project area has no known archaeological value or significance, as no archaeological sites have been confirmed within the development footprint. Based on the field survey, previous archaeological investigations and the extent of previous modification, the potential for intact subsurface archaeological remains within the Project area is considered low.

However, archaeological survey cannot completely exclude the possibility of previously unrecorded subsurface archaeological material, particularly in coastal dune and formerly coastal environments. Accordingly, construction works will be subject to an accidental discovery protocol as required by the proposed conditions of consent.

3.11 NAVIGATION SAFETY

The existing navigation environment is described in the Navigation Safety Assessment at **Appendix 24**.

Navigation within the Whangārei Harbour is managed through a combination of physical navigation infrastructure, harbour management procedures, pilotage, towage, radio communication, navigational aids, established harbour channels, and operational systems associated with the existing Northport facility.

The Project site is located immediately west of the existing Northport operational area, within a working harbour environment that already accommodates commercial shipping, tug movements, pilotage operations, port service vessels, recreational boating, fishing vessels and other harbour users. The harbour entrance and port approaches are influenced by tidal streams, wind conditions, vessel draft, under-keel clearance, and the geometry of the existing navigation channels and manoeuvring areas.

The existing navigation safety environment is supported by:

- (a) Established harbour entrance and port approach channels;
- (b) Navigational aids and markers;
- (c) Harbour radio and communication procedures;
- (d) Pilotage and towage services associated with Northport operations;
- (e) Dynamic Under Keel Clearance systems and under-keel clearance management for relevant vessels;
- (f) Existing Northport operational procedures for ship movements; and
- (g) Harbour management and navigation safety oversight by the relevant maritime authorities.

The proposed shipyard and drydock facility introduces additional vessel manoeuvring at the western end of the existing Northport facility. Vessels using the facility will need to move between the harbour / layup berth and the floating drydock or ship lift, be held in position at or near the dock entrance while lines, moles or other control systems are made fast, and then be moved safely into or out of the vessel lifting system.

A navigation simulation assessment, including operational window report has been prepared by Northport Ltd to inform the design and assessment of the Project. The assessment used the Northport simulator to test representative vessel movements under a range of tidal and wind conditions, including arrivals from the layup berth to the dock entrance, movement into the dock or ship lift, and departures from the dock back to the layup berth. The modelling considered representative design vessels, existing tug capability, tidal streams, wind effects and the proposed facility layout.

The Navigation Safety Assessment concludes that the facility is navigationally workable within defined operational windows. The initial simulations identified that an earlier manoeuvring area configuration did not provide sufficient space for some larger vessels. The manoeuvring area was consequently enlarged and further tested through the July 2026 simulations.

The July simulations confirm that the revised manoeuvring area provides sufficient space and under keel clearance for the assessed design vessels, subject to vessel specific limits relating to vessel dimensions, draft, displacement and trim, tide and wind conditions, tug capability and configuration, and the position of vessels at the layby berth. Full mission simulation, current monitoring, appropriate aids to navigation and coordinated operational procedures will be required before the facility is commissioned.

The existing navigation environment is therefore characterised by an actively managed commercial harbour within which the Project can operate safely, subject to the Project specific controls identified in the Navigation Safety Assessment.

3.12 BIOSECURITY

The existing marine biosecurity environment is described in the Marine Biosecurity Assessment at **Appendix 27**.

Port operations involve international shipping and therefore operate within national biosecurity management frameworks.

Biosecurity risks associated with shipping are managed through:

- Ballast water management requirements

- Biosecurity inspections and monitoring
- National and regional regulatory frameworks administered by relevant agencies.

3.13 NOISE

3.13.1 General

The existing terrestrial noise environment is described in the Noise and Vibration Assessment at **Appendix 23**. The terrestrial assessment addresses the existing noise environment, operational shipyard noise, construction noise and vibration, the applicable noise standards and the measures proposed to manage noise effects.

3.13.2 Existing noise environment

The Project is proposed immediately west of Northport within an established port and industrial environment. Four principal receiving environments are relevant:

- (a) Marsden Bay, a coastal residential settlement approximately 400 m west of the Project, within the General Residential Zone under the WDP;
- (b) Reotahi, a coastal residential settlement approximately 1.3–1.5 km north of the Project across Whangārei Harbour, within the Settlement Zone Residential Sub-Zone under the WDP;
- (c) the Port and Industrial Zones to the east and south, including Northport, the CINZ import terminal and the Carter Holt Harvey laminated veneer lumber plant, which are not noise sensitive receiving environments; and
- (d) Open Space Zones at the coastal interface, which are used by members of the public principally during the daytime.

The existing environment is influenced by port activity, shipping, CINZ operations, other industrial activity, road traffic, residential activity and natural coastal sounds. Port and industrial noise is already audible within Marsden Bay and Reotahi at times, particularly during busy operating periods and favourable propagation conditions.

3.13.3 Existing noise monitoring

Noise monitoring has been undertaken at Marsden Bay and Reotahi through several monitoring campaigns. Historical measurements include the 1991 Marsden Point

refinery noise survey and monitoring undertaken by MDA in 2018 of representative Northport and refinery operations.

In May and June 2023, MDA undertook continuous unattended monitoring over approximately one month at two locations in Reotahi and one location in Marsden Bay, supplemented by attended measurements. Representative night-time noise levels during busy operating periods and downwind conditions were approximately 42–45 dB L_{night} at 131 Reotahi Road, with corresponding levels at Marsden Bay generally approximately 4 dB lower. The monitoring also identified occasional higher level port events, although events between 65 and 75 dB LAF_{max} were rare and were not representative of typical port operations.

MDA undertook further project specific attended measurements at Marsden Bay and Reotahi on 29 and 30 April 2026. Measurements were undertaken at Albany Road in Marsden Bay, Norfolk Avenue Playground in Reotahi and Beach Road in Reotahi, before and during the arrival and berthing of the *Sierra Guardian*. At Albany Road, measured levels were approximately 40–42 dB LA_{eq}(15 min) before the vessel berthed and 43–44 dB LA_{eq}(15 min) after berthing. At Reotahi, evening levels before berthing were approximately 33–35 dB LA_{eq}(15 min), increasing to approximately 41 dB LA_{eq}(15 min) during the vessel's arrival.

MDA concludes that the 2026 measurements are consistent with the earlier monitoring campaigns, that the existing noise environment has not materially changed, and that the calibrated Northport noise model remains representative of current peak period port noise emissions.

3.13.4 Existing noise related consent conditions

Northport holds existing WDC land use consents for port activities on the reclamation associated with Berths 1 and 2, and Berths 3 and 4 respectively. Berths 1–3 and their associated reclamations have been constructed, but Berth 4 is still to be built. Regardless, Berth 4 and its associated noise is part of the existing environment.

The consent conditions relating to port noise in the WDC land use consents are as follows:

Berths 1-2

12. The noise level (L10) as measured within any residential zoned boundary or the notional boundary of any existing rural dwellings shall not exceed the following limits:

All Days:

0700am – 1000pm 55dBA L10

10pm–0700am 45dBA L10

10pm – 0700am 65dBA Lmax

The noise levels shall be measured and assessed in accordance with the requirements of NZS 6801: 1991 Measurement of Sound and NZS 6802: 1991 Assessment of Environmental Sound.

Berths 3-4

7. The Consent Holder shall ensure that all activities on the site (except construction activities where the noise limits differ from those below) to which this consent applies, are designed and conducted so that the following noise limits are not exceeded at any point, within any residential zone or within the notional boundary of any existing rural dwelling:

07.00am – 10.00pm 55dBA L10

10.00pm – 07.00am 45dBA L10

10.00pm – 07.00am 65dBA Lmax

All noise emissions from the port shall be measured cumulatively.

The noise levels shall be measured in accordance with NZS6801:1999 Acoustics – Measurement of Environmental Sound and assessed in accordance with NZS6802:1991 Assessment of Environmental Sound.

Northport also holds resource consents for the Northport Eastern Expansion. If implemented, those consents require Northport to transition to noise assessment and management using New Zealand Standard NZS 6809:1999 *Acoustics – Port Noise Management and Land Use Planning*. MDA has included the consented Northport activities in its assessment of the reasonably foreseeable receiving environment.

By 2035, the most exposed dwellings are predicted to receive daytime port noise levels of approximately 48 dB Lday at Marsden Bay and 51 dB Lday at Reotahi during a busy operating period. Corresponding night-time levels are predicted to be approximately 47 dB Lnight and 51 dB Lnight respectively. These consented activities

form part of the future receiving environment against which the Project's effects have been considered.

3.14 TRAFFIC ENVIRONMENT

3.14.1 General

The existing transport environment is described in the Transport Assessment at **Appendix 25**.

The surrounding transport network is primarily oriented around State Highway 15 (SH15). SH15 extends approximately 8.5 km between Northport and the SH1/SH15 roundabout and consists of a two-lane rural state highway designed to accommodate freight movements.

The transport network in this location performs a strategic function in supporting industrial activity at Marsden Point, including but not limited to port operations, energy infrastructure, and other industrial land uses.

3.14.2 Existing traffic environment

Traffic volumes on SH15 are influenced by a combination of industrial and residential activities located at Ruakākā, One Tree Point, Marsden Cove, and Marsden Point.

Northport is a significant contributor to traffic demand on the corridor, with port related traffic historically accounting for approximately 64% of total traffic on SH15 (based on 2018 data).

Freight movements associated with Northport are predominantly undertaken by road, with no current rail connection. These movements include a high proportion of heavy vehicles, particularly associated with log exports, which are subject to cyclical variation over time.

3.14.3 Intersections

The SH15 corridor includes a series of intersections connecting to local roads and industrial access routes. None of these intersections are currently at capacity. This reflects the relatively low traffic volumes on the corridor, notwithstanding the high proportion of heavy vehicle traffic.

3.14.4 Crash history

Crash data for the SH15 corridor indicates that 12 reported crashes occurred over the five-year period between 2016 and 2020. Of these crashes, one resulted in a fatality, and two resulted in minor injury.

This level of crash occurrence is relatively low for a rural state highway of this length and function, and does not indicate any systemic safety issues specific to the corridor.

3.14.5 Mode share and accessibility

The surrounding transport environment is strongly oriented toward vehicular access, particularly for freight and industrial purposes.

There are no dedicated cycle facilities on SH15 or its feeder roads. The combination of high speed environment (100 km/h), and significant proportion of heavy vehicles means the corridor is not considered suitable for pedestrian or cycling activity.

3.15 RECREATION AND PUBLIC ACCESS

3.15.1 General

The existing recreation environment is described in the Recreation Assessment in **Appendix 26**.

The coastal environment surrounding the application site supports a diverse range of formal and informal recreation activities, reflecting both its accessibility and its location within Whangārei Harbour.

Recreation resources in the locality occur within a modified working harbour environment, where established port and industrial activities coexist with public use of the coastal marine area and its margins.

Recreation within the wider harbour includes:

- Shore based and boat based fishing
- Walking, running and dog walking
- Beach use, including swimming and picnicking
- Boating and waka ama

- Diving, birdwatching, and general coastal recreation

These activities occur across a network of publicly accessible coastal areas, reserves, walkways and access points, particularly concentrated along the southern shoreline between One Tree Point and Marsden Point, and on the northern side of the harbour around Reotahi and McLeod Bay.

3.15.2 Terrestrial recreation and public access

Public access to the coastal margin in the vicinity of the site is well established and generally continuous across much of the southern harbour edge. Access is primarily provided by a combination of legal road, esplanade reserve, and recreation reserve land.

On the southern side of the harbour, public access extends from One Tree Point through Marsden Cove to Blacksmiths Creek, with only minor interruptions. To the east of Northport, an esplanade reserve administered by the Whangārei District Council provides coastal access along Marsden Point and beyond.

Of particular relevance to the application site is the access network at Blacksmiths Creek. The formed portion of Papich Road terminates at a public carpark, from which the Blacksmiths Creek Walkway extends through open grassed areas and coastal vegetation to the harbour edge and the western fishing pier. This area functions as a primary public access point for the immediate locality, supporting both linear access along the harbour edge and access to specific recreation destinations at the terminus of the walkway.

3.15.3 Walking, running and general coastal use

Walking and running are among the most common forms of recreation in the Marsden Point area. These activities occur along local roads, foreshore margins, and formal walkways, with the Blacksmiths Creek Walkway representing the most intensively used route in the immediate locality.

Available data indicates that this walkway experiences higher relative levels of use than surrounding coastal areas, reflecting its accessibility, dedicated path, and its function as a destination walk.

The walkway also supports dog walking, including designated off-leash areas, and serves as a key link between inland residential areas and the harbour edge. More generally, the coastal margin accommodates a range of informal recreational activity, including passive use, short duration visits, and general amenity enjoyment.

The small beach at the western end of the port, while limited in size, forms part of this recreation pattern as a destination point for users of the walkway and surrounding open space.

3.15.4 Beach activities

Beach based recreation in the wider area is focused on more extensive and accessible coastal environments, including Marsden Point Beach, Marsden Cove Reserve, and One Tree Point. These locations support swimming, picnicking and family oriented activities, and are serviced by public facilities such as car parking and toilets.

In contrast, the beach immediately west of Northport is smaller and more informal in nature. Its use is generally localised and closely associated with the Blacksmiths Creek Walkway and adjacent access routes.

While this beach does not perform a district scale recreation function, it contributes to the overall recreation experience of the walkway and surrounding reserve environment.

3.15.5 Fishing

Recreational fishing is a prominent activity within the Whangārei Harbour, occurring both from the shore and from vessels.

Within the immediate Project area, shore-based fishing is centred on two key locations. The first is the western fishing pier, accessed via the Blacksmiths Creek Walkway and revetment path. This is a purpose built structure that provides a defined fishing location on the western side of the port. The second is the eastern ferry pontoon, which, while originally intended for transport use, is also utilised for recreational fishing.

These facilities are supported by additional fishing activity along nearby beaches, particularly between Marsden Point and One Tree Point. The harbour more broadly supports moderate to high levels of boat-based fishing, reflecting its accessibility and ecological characteristics.

3.15.6 Shellfish gathering and diving

Shellfish gathering within the harbour occurs primarily at a wider scale, with known activity associated with intertidal areas such as Marsden Bay and Mair Bank. However, shellfish harvesting is currently constrained by stock depletion and regulatory closures, limiting recreational gathering opportunities in some areas.

There is no evidence of significant shellfish gathering occurring within the immediate Project footprint.

Diving activity is also limited within the site locality. The inner harbour environment, including the proposed Project area, is characterised by low visibility and sediment dominated seabed conditions, which are not well suited to recreational diving. More suitable diving environments occur at the harbour entrance and along the Whangārei Heads coastline.

3.15.7 Boating and water-based recreation

Whangārei Harbour supports a broad range of water-based recreation, including recreational boating, fishing, waka ama, and kayaking.

In the vicinity of Northport, boating activity is generally concentrated within established navigation channels and areas associated with boat ramps and marina access. Activity within the immediate Project footprint is relatively limited, with nearby use largely associated with movements to and from Marsden Cove.

The harbour also forms part of the Te Araroa Trail route, with a water taxi connection between Reotahi and the eastern pontoon at Northport providing an important link in the national walking network. The water taxi connection will not be affected by the Project.

3.16 STORMWATER DISCHARGES AND HARBOUR WATER QUALITY

3.16.1 General

The existing stormwater system and harbour water quality environment are described in the Stormwater Assessment at **Appendix 21**.

The Project is located immediately adjacent to the existing Northport facility and will rely, in part, on the established Northport stormwater system for the management of standard stormwater runoff. The stormwater receiving environment and the Northport stormwater infrastructure are therefore important components of the existing and consented environment.

The Stormwater Assessment outlines the proposed management of stormwater and operational runoff from the shipyard and drydock facility. That assessment has considered the capability of the existing and consented Northport stormwater canal and pond system to receive standard stormwater runoff from the additional shipyard catchment, together with the additional controls required to manage higher risk operational runoff.

The proposal distinguishes standard rainfall runoff from higher risk washwater and process runoff. Standard stormwater will be pre-treated before entering the Northport canal and pond system. Washwater and process runoff from vessel maintenance activities will be isolated, contained and directed to the WDC wastewater network under a trade waste approval, or to another authorised disposal pathway.

3.16.2 Harbour water quality

The receiving environment comprises the lower Whangārei Harbour and the coastal waters adjacent to Marsden Point, including the area near Blacksmiths Creek. This is a sensitive coastal receiving environment because it includes ecological, cultural, recreational and water quality values, and because Blacksmiths Creek and adjoining intertidal habitats are located close to the western side of the Project area.

The existing and consented port and industrial environment also forms part of the stormwater context. Northport, Marsden Maritime Holdings and other Marsden Point

industrial activities discharge stormwater through existing consented systems. The stormwater assessment for the Project has therefore been prepared in the context of the existing Northport facility, the recently consented Northport eastern expansion and the adjacent Marsden Maritime Holdings stormwater system.

3.16.3 Existing Northport stormwater system

The existing Northport stormwater system comprises a perimeter canal network and a central stormwater treatment pond. Runoff from hardstand and port apron areas is collected via surface flow paths and local drainage infrastructure and conveyed to canals around the landward margin of the port. The canals direct flows toward the treatment pond.

The Northport canal network operates as a low gradient or effectively zero grade system. It relies on induced hydraulic gradient rather than conventional pipe fall. This arrangement maintains relatively low flow velocities, assists sediment deposition within the canals and reduces the potential for re-suspension of settled material.

Within the Northport pond, flows pass through a staged settlement and treatment process before discharge. The pond includes a forebay, baffled treatment areas, a central bund separating pond basins, and a pumped outlet arrangement that controls discharge from the pond. The system also includes overflow and exceedance mechanisms, including spillway arrangements, to provide hydraulic relief during larger rainfall events.

The recently consented Northport eastern expansion adopts the same broad drainage approach. It extends the canal system to new port apron areas and continues to rely on the established Northport treatment pond. That consented configuration forms part of the existing and reasonably foreseeable stormwater environment for this application.

The MMH stormwater system is adjacent to the Northport system and is also relevant because of the shared downstream discharge arrangement. The Northport and MMH systems remain separate treatment systems until their discharges combine downstream before entering the shared outfall to Whangārei Harbour. This

distinction is important because monitoring and compliance for the Northport discharge occurs before mixing with other discharge streams.

The existing and consented Northport and MMH catchments, the proposed shipyard catchment and the downstream discharge arrangement are shown in **Figure 3-9**.

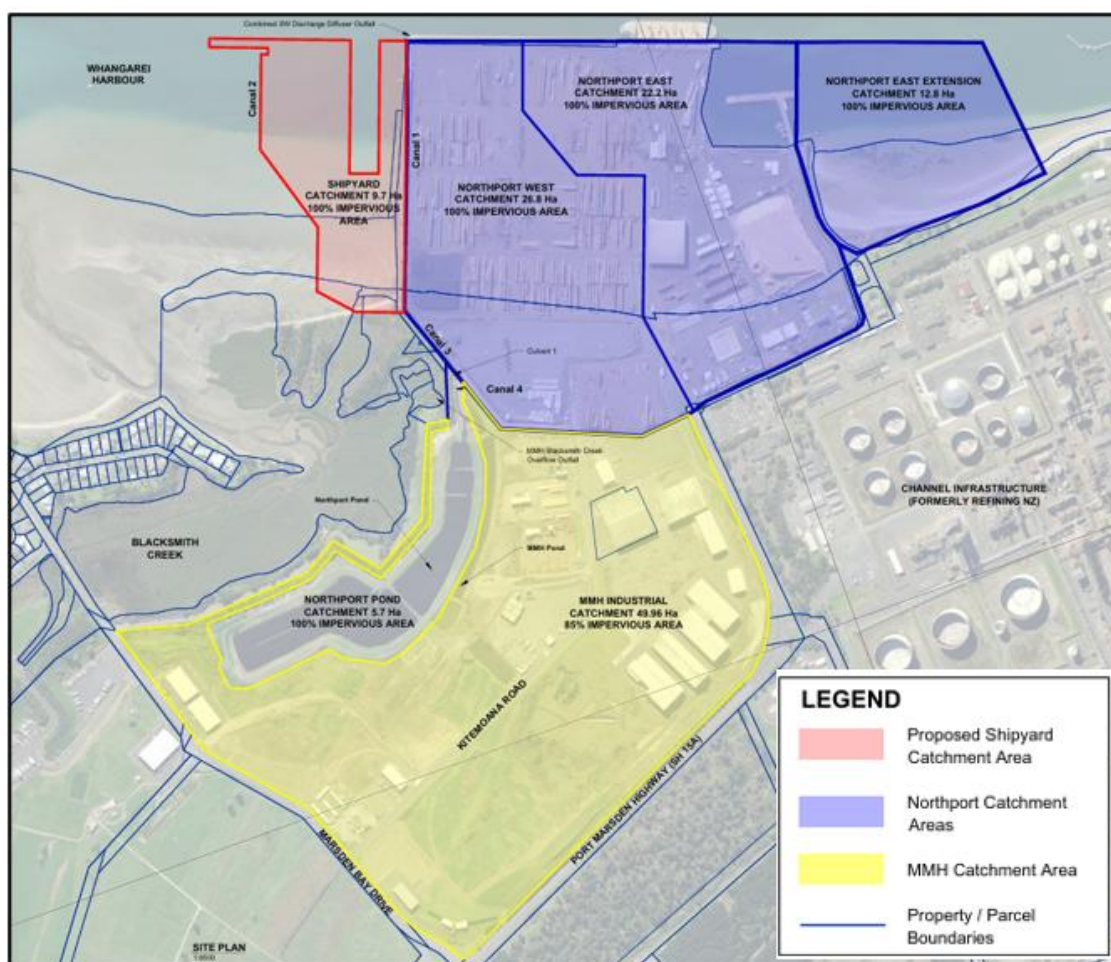


Figure 3-9: Existing and proposed stormwater catchments

3.16.4 Existing Northport conditions of consent and compliance

Stormwater discharges from Northport are managed under existing regional consent conditions. Those conditions include water quality standards, monitoring requirements and response mechanisms. The relevant monitoring framework includes parameters such as suspended solids, turbidity, pH, metals, petroleum hydrocarbons and other analytes relevant to port stormwater discharges. The monitoring location is important because it enables discharge quality to be assessed before receiving environment dilution and before mixing with other discharge streams.

The Stormwater Assessment records that the Northport stormwater treatment system has demonstrated good treatment performance and compliance. That performance is relevant to this Project because standard stormwater runoff from the shipyard is proposed to be managed through the same overall treatment pathway, following pre-treatment within the shipyard catchment.

The Project will not rely on the Northport pond to treat high risk operational washwater from vessel maintenance activities. Those higher risk streams will be separated from the standard stormwater network and directed to trade waste or another authorised disposal pathway. This separation is central to the stormwater and water quality assessment in Section 6.11.

3.17 AIR QUALITY

3.17.1 General

The existing air quality environment is described in the Air Quality Assessment at **Appendix 22**.

The Air Quality Assessment considers both construction and operational air discharges associated with the Project, including reclamation and construction dust, construction of the access road and carpark, vessel surface preparation, spray painting, odour, particulate matter, combustion emissions from auxiliary plant, and the potential for deposited particulates or overspray to affect the coastal marine area.

The assessment has been prepared having regard to relevant Ministry for the Environment good practice guidance for dust, odour, industrial discharges and atmospheric dispersion modelling. It is supported by qualitative frequency, intensity, duration, offensiveness and location (FIDOL) assessments for dust and odour, dispersion modelling for spray painting emissions, short-term background air quality monitoring, and recommended mitigation and monitoring measures to be incorporated into the Air Quality Management Plan (AQMP).

3.17.2 Regulatory setting

The Project is located within the Marsden Point Airshed. The Marsden Point Airshed was historically associated with emissions from the former Marsden Point Refinery, particularly sulphur dioxide. The refinery is no longer operating, and the Air Quality Assessment considers that sulphur dioxide concentrations are no longer a key concern within the airshed.

The RPN contains relevant provisions for discharges of contaminants to air, including discharges that may give rise to dust, odour, particulate matter, spray drift or other air quality effects. The Marsden Point Air Quality Strategy has also been considered in the Air Quality Assessment, although that strategy is now dated and refers to an earlier regional air quality planning framework that has been superseded by the RPN.

3.17.3 Meteorology

The Air Quality Assessment has assessed local meteorological conditions using modelled meteorological data for the proposed facility. The assessment identifies that stronger winds occur most commonly from the west-southwest, although the direction and frequency of winds capable of transporting dust toward sensitive receptors has been considered separately in the effects assessment.

The meteorological assessment is relevant to the management of construction dust, operational particulate matter, overspray and odour. Wind monitoring is proposed as part of the operational management framework so that wind speed and direction can be used to inform real-time management of dust generating and odour generating activities.

3.17.4 Sensitive receptors

The Air Quality Assessment has identified sensitive receptors in the vicinity of both the proposed shipyard and drydock facility and the proposed carpark and access road. Receptors have been selected to represent residential, recreational, industrial and coastal marine receiving environments.

For the shipyard and drydock facility, the assessment identifies nearby receptors including residential dwellings at Albany Road and Reotahi, public recreation areas

including the Blacksmith Creek Walkway, Marsden Bay Beach and the beach west of the site, the Whangārei Harbour / coastal marine area, One Tree Point School, and the adjacent Northport industrial environment. The nearest residential receptors are located approximately 375 m or more from the proposed facility, while public recreation areas and the coastal marine area are closer to the works.

For the carpark and access road, the assessment identifies primarily industrial receptors, together with the Blacksmith Creek Walkway. The receiving environment for the carpark and access road is generally of low sensitivity, except for the walkway, which is of moderate sensitivity.

3.17.5 Background air quality

The Air Quality Assessment has considered publicly available air quality monitoring data and has also undertaken short-term site specific monitoring between 23 April and 20 May 2026. The nearest publicly available monitoring site is located at Roberts Road, approximately 5 km south of the site, where PM₁₀ concentrations are typically below 30 µg/m³ and no recent exceedances of the National Environmental Standards for Air Quality PM₁₀ standard have been recorded.

The site specific monitoring undertaken as part of the Air Quality Assessment measured particulate matter and nitrogen oxides. The monitoring recorded generally low PM₁₀ concentrations, consistent with the wider monitoring data. The monitoring also identified elevated total suspended particulate (TSP) concentrations when winds were from the direction of the existing log yard, demonstrating the usefulness of real-time particulate monitoring combined with wind data for identifying likely sources of dust and informing operational management responses.

The assessment considers that background air quality in the vicinity of the site is generally good, subject to existing industrial and port related sources of particulate matter and combustion emissions.

3.18 UNIMPLEMENTED RESOURCE CONSENTS

3.18.1 Consents held by Northport

Northport Limited holds operative regional and district resource consents authorising the expansion of the existing port facility at Marsden Point. Copies of the relevant consents are included at **Appendix 31**.

The consented works include the fourth berth and associated reclamation and wharf structures, together with the wider eastern expansion of the port. Although those works have not yet been fully implemented, the operative consents form part of the existing and reasonably foreseeable environment for the purposes of this assessment.

The consents authorising the eastern expansion are referred to in this application as the Northport Eastern Expansion consents. They provide for reclamation, dredging, wharf and berth structures, stormwater infrastructure, public access works and associated port development to the east of Northport's existing operational footprint.

The Northport Eastern Expansion consents also require the construction, monitoring and maintenance of a sandbank renourishment area west of Northport to provide replacement high tide roosting habitat for shorebirds affected by the consented eastern reclamation. The consented roost comprises an elongated sandbank located immediately west of the existing Northport reclamation, as shown in **Figure 3-10**.

The relationship between the consented roost and the alternative roost location proposed as part of the Project is addressed in Section 4.4. The relationship between the Project and the other works authorised by the Northport Eastern Expansion consents is addressed throughout the relevant effects assessments and in Section 4.15.

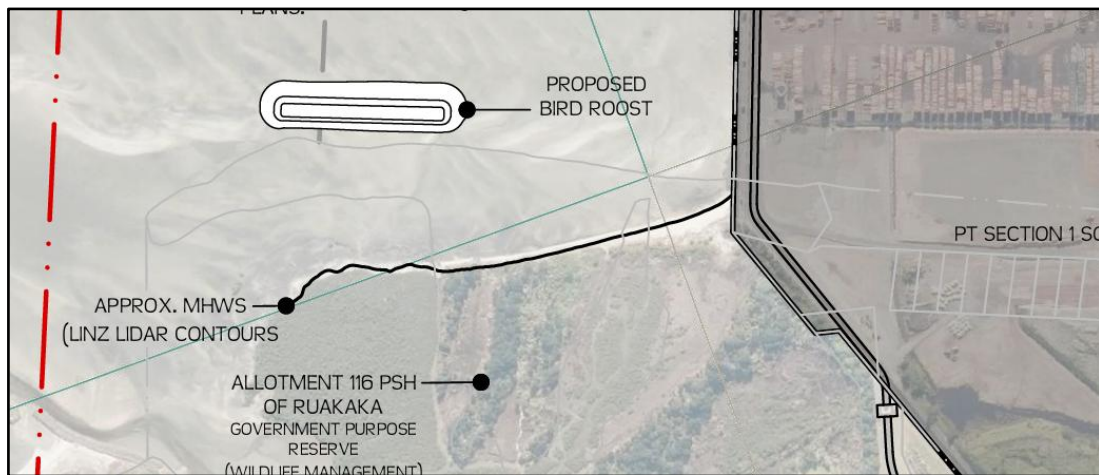


Figure 3-10: High tide bird roost consented under AUT.005055

3.18.2 Consents held by CINZ

On 14 December 2018, the Environment Court approved the various resource consents required for the Refining NZ Crude Shipping Project (AUT.037197 – see copy attached in **Appendix 32**). These currently unimplemented consents provide for the deepening and realignment of the shipping channel in the approach to the Whangārei Harbour. The works extend approximately 5 nautical miles from the Fairway Buoy to the CINZ jetty. As with the Eastern Expansion Consents, the possibility that these consents may be implemented requires them to be considered in the various environmental effects assessments, particularly those relating to coastal processes (i.e. hydrodynamics and morphology) and marine ecology.

4. DESCRIPTION OF THE PROPOSAL

4.1 OVERVIEW

The proposal is to construct and operate a shipyard and drydock facility adjacent to the existing Northport facility at Marsden Point, within the Whangārei Harbour. The proposal includes reclamation, dredging, wharf and berthing structures, hardstand and laydown areas, buildings and utilities, access and parking infrastructure, and provision for public access to a relocated fishing platform.

The facility will service commercial, naval and other large vessels. Work will include maintenance, repair and servicing undertaken either while vessels are afloat or after they have been lifted from the water.

The shipyard will operate independently of Northport, although its location allows it to use or connect with some existing port and industrial infrastructure.

The indicative general arrangement of the proposed shipyard and drydock facility is shown in **Figure 4-1**.

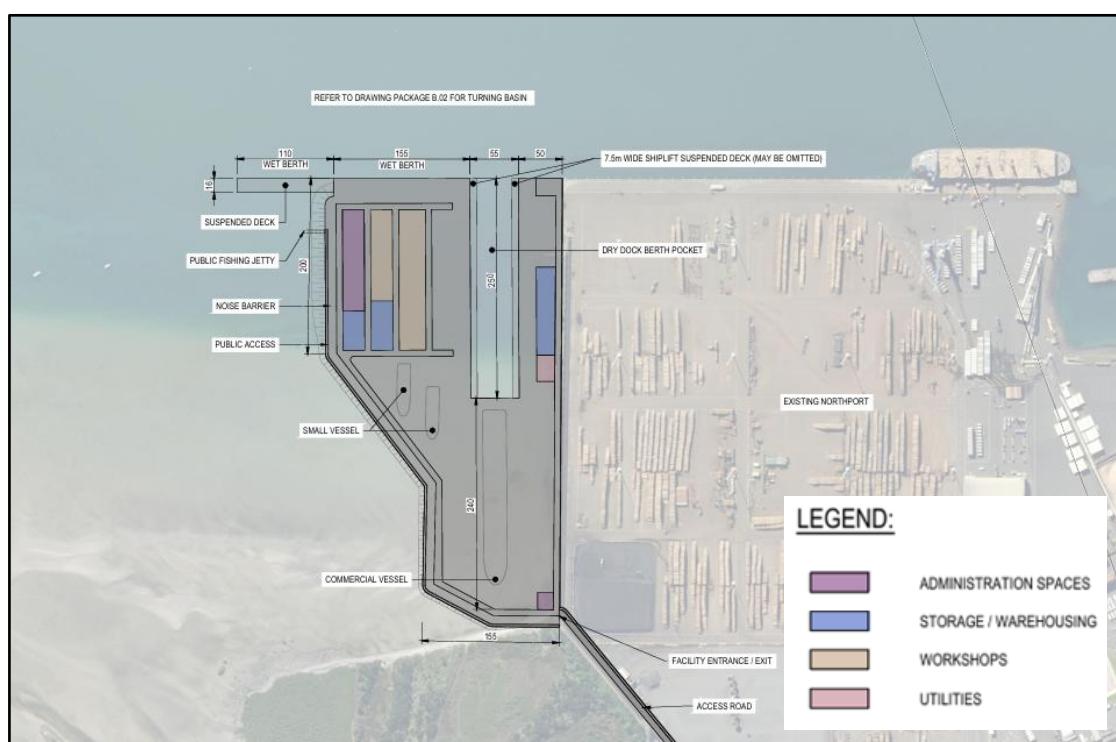


Figure 4-1: Proposed shipyard and drydock general arrangement

4.2 RECLAMATION

4.2.1 Overview

The Project includes an approximately 9.7 ha reclamation adjoining the western side of the existing Northport reclamation. The reclamation will provide the principal land platform for the vessel haul-out system, hardstand and laydown areas, workshops, fixed plant, buildings, services and supporting infrastructure.

The reclamation footprint and indicative finished form are shown in the Project Plans at **Appendix 6** and described in the Concept Design and Construction Report at **Appendix 11**. The Concept Design and Construction Report has also been independently reviewed by WSP New Zealand Limited. The WSP Concept Design Review at **Appendix 41** includes an independent conceptual geotechnical assessment of the proposed combi-wall and high level consideration of the reclamation revetment, jetty and suspended deck structures. WSP concludes that the proposed civil and marine infrastructure concept is an appropriate and viable engineering solution based on the information currently available, while identifying matters including further geotechnical investigation, settlement, ground improvement and durability for consideration through subsequent design stages.

The final detailed design will remain within the footprint and design envelope assessed in this application and authorised by the conditions of consent.

The reclamation will be formed using suitable dredged material generated by the Project, supplemented by imported material if required. The reclamation methodology, edge treatment, containment structures and sequencing are addressed in the following subsections.

4.2.2 Reclamation and edge treatment

The reclamation will be formed within engineered containment structures comprising a combination of rock revetments, quay walls and associated marine structures. The southern and western edges of the reclamation are expected to be protected by rock revetment, while other parts of the reclamation edge will interface with wharf, wet berth, drydock / ship lift and other marine structures.

During construction, water will drain from the reclamation fill and may also accumulate within the reclamation containment area as a result of rainfall, tidal seepage or the placement of wet dredged material. This decant water will be discharged to the coastal marine area in accordance with the proposed NRC conditions. The discharge will be managed through the reclamation construction methodology, sediment control measures, monitoring and response procedures required by those conditions.

The concept design anticipates that the reclamation platform will be graded to provide surface drainage, with heavy duty paving across the operational areas. The reclamation will be designed to support shipyard operations, including heavy vehicles, mobile cranes, vessel transfer systems, equipment storage, repair plant, and vessel maintenance activities.

The reclamation edge treatment will be refined during detailed design having regard to coastal processes, structural stability, durability, operational requirements, public access, navigation safety, landscape treatment, stormwater and wastewater management, avifauna management and the relevant conditions of consent.

Representative cross-sections through the drydock pocket and the western reclamation edge are shown in **Figure 4-2**.

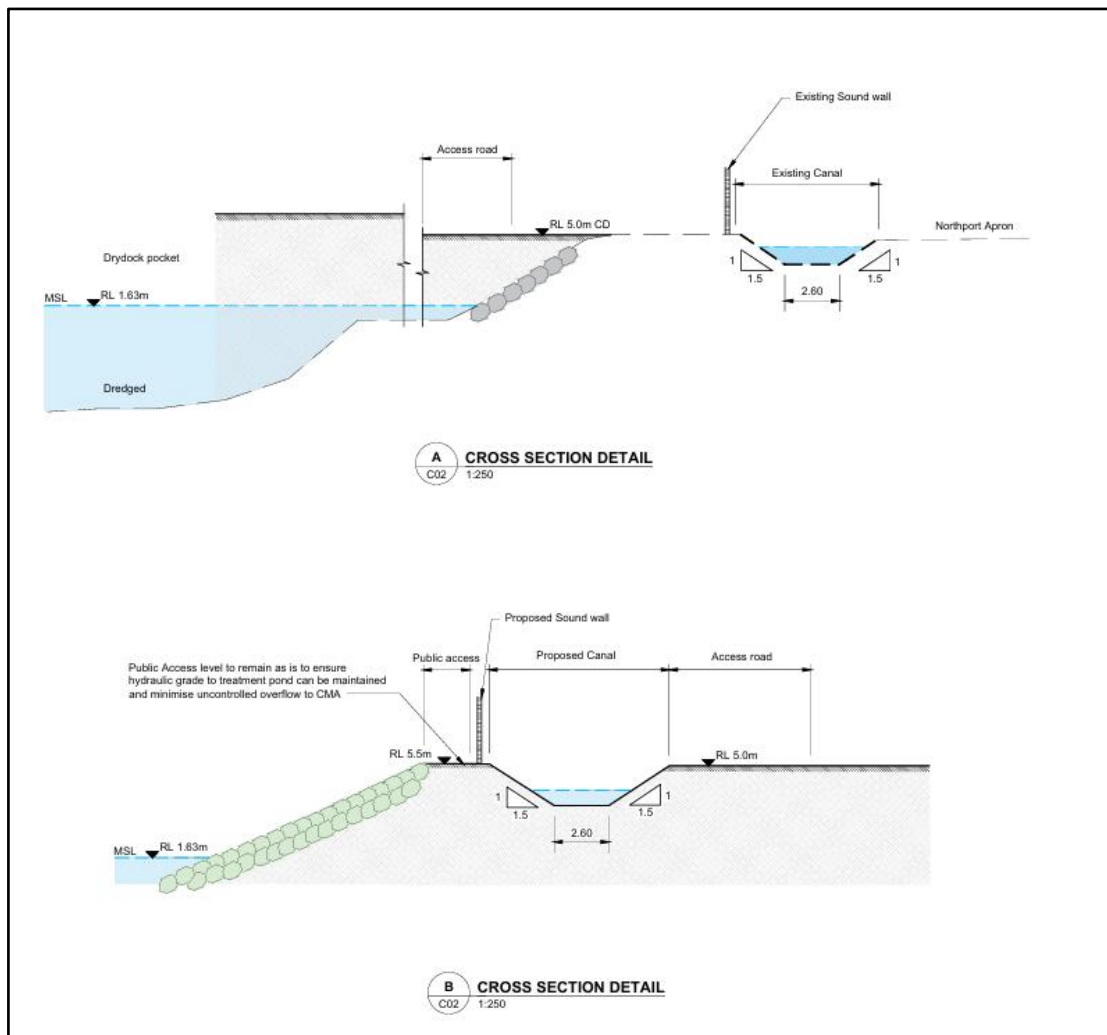


Figure 4-2: Representative cross-sections through the reclamation and western coastal edge

4.2.3 Functional need and reclamation extent

The reclamation has been developed as an integrated operational platform. Its extent reflects the space required for the vessel lifting system, vessel transfer, hardstand operations, crane corridors, working and laydown areas, environmental controls, access, utilities and safe separation of operational and public areas.

The reclamation is necessary to enable vessels within the design envelope to be lifted from the water, transferred where required, safely secured, accessed by plant and personnel, serviced, repaired, maintained and returned to the water. It also provides the physical area required to contain and manage operational effects associated with vessel maintenance, including stormwater, washwater, surface preparation residues, biofouling, spill response, waste handling and other environmental controls.

4.2.4 Reuse of dredged material and cut / fill balance

Dredged material suitable for reclamation fill will be beneficially reused in the Project reclamation and/or the reclamation works authorised by the Eastern Expansion Consents.

Stage One will generate approximately 753,209 m³ of dredged material, comprising approximately 622,229 m³ from the vessel manoeuvring area and approximately 130,980 m³ from the vessel haul-out pocket. The reclamation volume is approximately 654,144 m³. Actual recoverable and suitable volumes will depend on the final dredge profile, material characteristics, construction methodology and bulking or consolidation factors.

Stage Two is included to ensure that the Project does not reduce the volume of dredged material available for the reclamation authorised by the Eastern Expansion Consents. At a selected depth of -18.0 m CD, Stage Two will generate approximately 710,600 m³ of additional material compared with Northport's consented dredge profile. Stage Two is entirely within the dredging footprint authorised by the Eastern Expansion Consents.

The final allocation, handling and placement of dredged material will be confirmed through detailed construction planning and the relevant management plans. No offshore disposal of dredged material is proposed.

The technical assessments of the Stage One and Stage Two dredging are contained in the relevant Met Ocean assessment reports at **Appendix 14**.

4.3 DREDGING

4.3.1 Overview and purpose of dredging

The Project includes two dredging stages.

Stage One comprises the capital and maintenance dredging required for the western turning basin. It includes the vessel manoeuvring area, layby berth and vessel haul-out pocket required to provide safe vessel access, manoeuvring, berthing and haul-out.

Stage Two comprises additional capital dredging for the secondary dredge area. It is located within the spatial footprint authorised by the Eastern Expansion Consents. Stage Two is included to ensure that sufficient dredged material is available for both the Project reclamation and the reclamation works authorised by the Eastern Expansion Consents.

The dredging is assessed in the Met Ocean Assessments at **Appendix 14**.

The Stage One and Stage Two dredging areas are shown in **Figure 4-3** and **Figure 4-4** below.

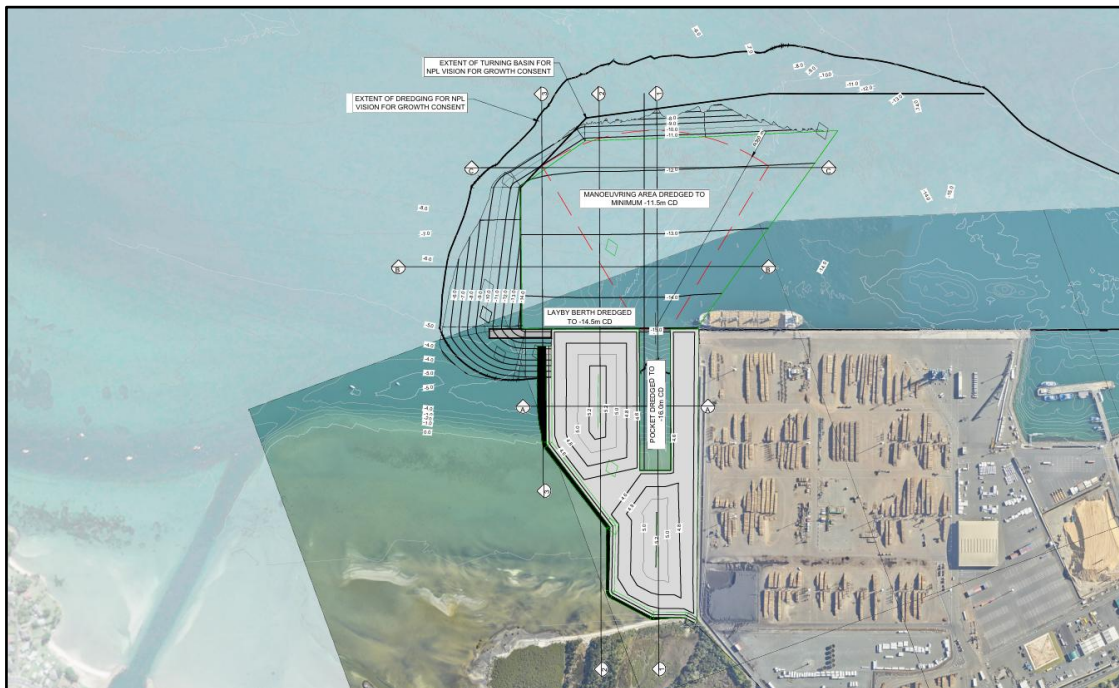


Figure 4-3: Stage One dredging areas

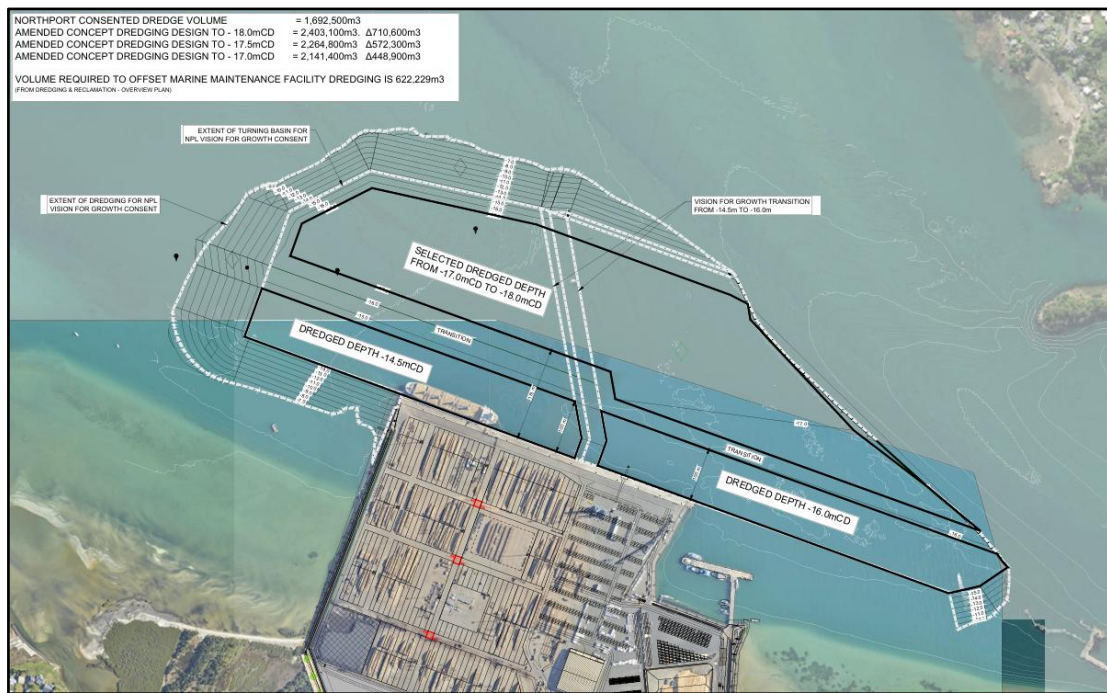


Figure 4-4: Stage Two dredging areas

4.3.2 Stage One dredge areas and depths

The Stage One manoeuvring area extends north and west of the proposed reclamation and has a variable dredge profile. It will be dredged to a minimum depth of approximately -11.5 m CD, grading to approximately -14.5 m CD at the layby berth. The vessel haul-out pocket will be dredged to approximately -16.0 m CD.

The indicative Stage One volumes are:

- (a) Vessel manoeuvring area – approximately 622,229 m³; and
- (b) Vessel haul-out pocket – approximately 130,980 m³.

Except for the vessel haul-out pocket, the Stage One dredging is within the dredging footprint authorised by the Eastern Expansion Consents. The manoeuvring area geometry has been developed to provide the navigation envelope identified in the Navigation Safety Assessment at **Appendix 24**.

4.3.3 Stage Two dredge areas and depth

Stage Two is entirely within the dredging footprint authorised by the Eastern Expansion Consents but extends to a greater depth. The selected Stage Two profile may extend to approximately -18.0 m CD. At that depth, the additional dredge

volume is approximately 710,600 m³ compared with Northport's consented dredge profile.

Stage Two will be undertaken as capital dredging and will not require maintenance dredging.

4.3.4 Dredging methodology and timing

The dredging methodology will be selected having regard to the material to be dredged, dredge geometry, production requirements, environmental controls, navigation safety and sequencing of reclamation construction. Potential dredging plant includes a backhoe dredger, cutter suction dredger, trailer suction hopper dredger or other suitable plant within the assessed effects envelope.

Stage One and Stage Two may each take approximately 12–20 weeks, based on an indicative production rate of approximately 6,000–12,000 m³ per day. These are broad estimates only. Actual duration will depend on the dredging plant, weather, material characteristics, production rates and the onshore management and placement of dredged material.

Dredging and reclamation will be sequenced so that suitable dredged material can be placed and contained within the relevant reclamation works. The final sequence will be described in the Construction Environmental Management Plan (CEMP) (see draft at **Appendix 9A**) and otherwise managed in accordance with the applicable dredging conditions, including the DMP required under those conditions.

As recorded earlier, the references to Stage One and Stage Two are for convenience and MBIE is not seeking staged approvals for the Project (as provided for in section 37A FTAA).

4.3.5 Maintenance dredging

Maintenance dredging is expected to be required to maintain the operational depths and navigation function of the Stage One vessel haul-out pocket, layby berth and manoeuvring area, particularly during the first few years following capital dredging as the dredged side slopes adjust.

The frequency and volume of maintenance dredging will depend on sedimentation rates and operational requirements and will be managed under the applicable consent conditions and a certified MDMP prepared before maintenance dredging commences.

The Stage Two dredged area will be allowed to infill and will not be maintained at the full Stage Two dredge depth.

4.4 RELOCATED HIGH TIDE BIRD ROOST

As described in Section 3.18, the high tide roost required by Northport's Eastern Expansion Consents is a mitigation measure for the loss of shorebird roosting habitat associated with Northport's consented eastern reclamation. Responsibility for satisfying that mitigation obligation remains with Northport.

The consented roost is outside the Project footprint. However, it will be located proximate to the proposed shipyard reclamation and within the disturbance distance identified in the Coastal Avifauna Assessment. Construction and operation of the Project could therefore reduce the attractiveness or effectiveness of the roost if it were constructed in its currently consented location.

An alternative location and configuration have accordingly been identified and assessed as part of the Project. The alternative roost would be located slightly further west, outside the identified disturbance distance, and would adopt a more rounded form. The revised configuration is intended to enable Northport's existing mitigation obligation to continue to be achieved in the receiving environment that would exist if the Project, and Northport's Eastern Expansion, both proceed.

The relocated roost will comprise a circular sand feature with an area of approximately 2,700 m² above MHWS and a total intertidal occupation area of approximately 7,480 m². It will have a crest level of approximately RL 1.6 m and will initially require approximately 7,200 m³ of suitable sand. The roost is expected to deflate and migrate gradually under wave overtopping and overwash and will therefore require monitoring and periodic replenishment.

Accordingly, the approvals sought for the Project include the physical works associated with establishing a roost in the alternative location. They do not transfer

Northport's mitigation obligation to MBIE nor do they purport to represent mitigation for the Project. If required, Northport would remain responsible for seeking any necessary variation to the conditions of its Eastern Expansion Consents and for constructing, monitoring and maintaining the roost in accordance with those conditions.

The consented and alternative locations and configurations are shown in **Figure 4-5**.

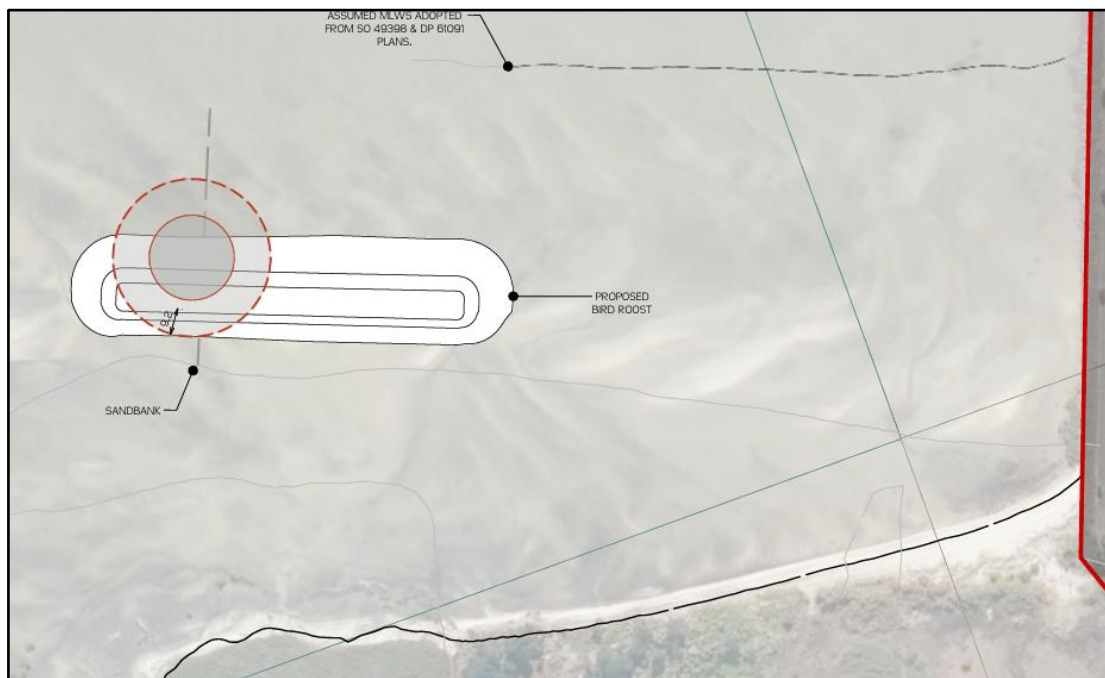


Figure 4-5: Consented bird roost (ellipse) and proposed relocated bird roost (circular red pecked lines)

4.5 WHARF, WET BERTHS AND MARINE STRUCTURES

The Project includes wharf, wet berth and associated marine structures required to support the shipyard and drydock facility. These structures will provide for vessel berthing before and after haul-out, vessel servicing, maintenance activities that do not require vessel removal from the water, tug and service vessel access, and operational connection between the marine and land based parts of the facility.

At concept design stage, the wet berth has an indicative overall length of approximately 265 m and is intended to accommodate vessels up to approximately 230 m length overall. The western part of the wet berth will be formed by an open-piled suspended deck structure, indicatively approximately 110 m long and 16–18 m

wide. These dimensions remain subject to detailed design within the assessed Project footprint and design envelope.

The wet berth and associated marine structures will be designed to accommodate berthing and mooring forces, mobile plant and crane movements, fendering, bollards, safety ladders, services, access and operational working areas. The fendering, bollards, safety ladders and other berth furniture will be refined during detailed design having regard to the design vessels and operational requirements.

The concept design also provides for quay wall structures, suspended deck structures, revetments and other marine infrastructure required to contain the reclamation and provide the operational interface with the coastal marine area. These structures will be subject to detailed engineering design and certification in accordance with the conditions of consent.

4.6 VESSEL HAUL-OUT SYSTEM (FLOATING DRYDOCK OR SHIP LIFT)

4.6.1 General

The Project provides for a vessel haul-out system comprising either a floating drydock or a ship lift within the assessed design envelope. The final lifting technology will be confirmed during subsequent design and procurement stages.

Both options will require an integrated vessel transfer and operational control system, including appropriate tug assistance, line handling, mooring and/or mechanical control systems. The detailed design and operational procedures will be confirmed before commissioning and implemented in accordance with the certified Navigation Safety Management Plan (NSMP).

4.6.2 Floating drydock option

A floating drydock is a floating marine structure that can be submerged and refloated through controlled ballasting and de-ballasting. In operation, the dock is submerged, the vessel is manoeuvred over prepared dock blocks, and the dock is then de-ballasted so that it refloats and lifts the vessel clear of the water.

A floating drydock option would be located within a dredged pocket and secured to the surrounding marine structures. A floating drydock may enable vessels to be

maintained within the dock itself and may also allow vessels to be transferred ashore to the hardstand.

Indicative floating drydock dimensions include a length of approximately 250 m, an external beam of approximately 55 m, and an internal beam between wing walls of approximately 44 m. The lifting capacity is expected to be in the order of 28,000 tonnes light ship displacement.

An example drydock (in this case a Damen Modular Drydock 24536) is provided in **Figure 4-6**.



Figure 4-6: Damen Modular Drydock 24536 (floating drydock example)

4.6.3 Ship lift option

A ship lift uses a platform that is lowered into the water to allow a vessel to be positioned above it. The platform and vessel are then raised by synchronised winches, hydraulic jacks or similar systems until the platform is level with the surrounding yard pavement. The vessel may then remain on the platform or be transferred ashore by rail and bogey system to a hardstand area.

At concept design stage, a ship lift option would comprise a lifting platform of approximately 230 m length and approximately 35 m to 40 m width between suspended decks. The lifting capacity is expected to be in the order of 28,000 tonnes.

A ship lift often incorporates a transfer system to facilitate the movement of vessels to and from landside hardstand areas.

An example ship lift is provided in **Figure 4-7** below.



Figure 4-7: Ship lift example

4.6.4 Environmental controls associated with vessel lifting

Both lifting options will incorporate pollution prevention and environmental control systems. These include contained deck drainage, washwater capture, sedimentation and filtration, transfer of residual fluids to shore-based treatment, spill response equipment and procedures to avoid direct discharge of high risk operational washwater or liquid waste to the coastal marine area.

If a floating drydock is selected, periodic underwater cleaning of its submerged surfaces will be undertaken using a full capture cleaning system or an equivalent method that prevents the uncontrolled discharge of biofouling material and associated contaminants to the coastal marine area. The activity will be undertaken in accordance with the certified operational biosecurity management plan required by the conditions of consent and any other applicable consent requirements.

4.7 HARDSTAND AND LAYDOWN AREAS

The reclamation will provide the hardstand, laydown, transfer, servicing and working areas required to support the operation of the shipyard and drydock facility. These areas are integral to the Project and are a key reason why a reclamation based operational platform is required.

The hardstand and laydown areas will provide for the movement, storage and servicing of vessels, plant, equipment, materials, containers, dock blocks, cradles, transfer bogies and other infrastructure associated with vessel maintenance operations. They will also provide working space for mobile cranes, heavy vehicles, service vehicles, emergency access, contractor access and vessel transfer systems.

The concept design provides for vessel hardstand, crane corridors, transfer and storage areas, general working and laydown areas, wet berth and drydock working areas, workshops, utilities, roads and supporting infrastructure. These areas have been developed to provide an operational layout that supports safe vessel transfer, vehicle and pedestrian movement, and the servicing of multiple vessels within the design envelope.

Vessels may be maintained within the floating drydock or ship lift, on the lifting platform, on the hardstand, or alongside the wet berth where haul-out is not required. For both lifting options, the hardstand immediately behind the vessel haul-out system will enable vessels to be transferred ashore by rail and bogey or equivalent transfer system.

The hardstand areas will be designed to accommodate the heavy operational loads associated with vessel transfer, mobile cranes, heavy vehicles, service plant, containers, repair equipment and other shipyard activities. Final pavement design, loading requirements and foundation treatment will be confirmed through detailed design.

The hardstand and laydown areas will also accommodate the physical infrastructure required for environmental management, including containment, drainage, washwater capture, waste handling and other controls associated with vessel maintenance activities. Those controls are described in Sections 4.10.4–4.10.6.

The final layout of the hardstand and laydown areas, buildings, workshops, storage areas, utilities and environmental control infrastructure will be refined during detailed design within the assessed Project footprint and design envelope.

4.8 ACCESS, PARKING AND PUBLIC ACCESS

4.8.1 Vehicle access and parking

Vehicle access to the facility will be provided from Marsden Bay Drive via a private access road. The access road will connect the carparking area and wider transport network to the operational facility.

Carparking will be provided as close as reasonably practicable to the production yard area, on land owned by Northport shareholder MMH. The location of the carparking area is shown indicatively on **Figure 4-8** below, but remains subject to refinement during detailed design.



Figure 4-8: Indicative carpark location

The access road and footpath will cross the existing Northport drainage canal at two locations. Each crossing will be designed to maintain the function of the drainage canal and provide safe vehicle and pedestrian connectivity.

A small part of the Project footprint also extends across an unformed legal road forming an extension of Papich Road. The plan at **Appendix 39** identifies approximately 320 m² of unformed legal road above MHWS (Area A). Advice obtained for the Project is that the portion of the road alignment seaward of MHWS forms part of the seabed under the Marine and Coastal Area (Takutai Moana) Act 2011. Accordingly, Area A is the portion of unformed legal road that will require occupation and may require road stopping or other separate authorisation. Any such authorisation will be obtained separately from the approvals sought through this application. The access and parking arrangements will be refined during detailed design, having regard to operational safety, stormwater management, pedestrian movement, construction staging, traffic effects, and compatibility with existing and future port and industrial activities.

4.8.2 Pedestrian access and public access

Pedestrian access between the carparking area and the operational facility will be provided via a footpath of approximately 2.5 m width running generally parallel to the access road.⁶ This access will be controlled to authorised personnel.

The Project separately provides for public access around the western edge of the reclamation, including to access a public fishing platform. The purpose of this public access arrangement is to maintain public access and fishing opportunity in the locality, noting the Project will necessarily displace the existing public fishing platform on the western edge of the Northport facility.

Separate access for public users from the operational shipyard area is necessary for health, safety, security, and operational reasons.⁷

A small bird viewing hide will also be provided at a suitable location along the public accessway. The hide will comprise a screen with a viewing opening and seating and

⁶ This pedestrian access is for facility users/employees etc – not public access.

⁷ The proposed public access and replacement fishing platform arrangements are assessed as components of the Project. To the extent that their implementation requires a change to, or approval under, an existing Northport resource consent, that change or approval will be pursued separately by Northport or the relevant consent holder. No change to an existing Northport resource consent condition is sought through this application.

will be oriented to provide views toward Blacksmiths Creek and associated coastal bird habitat. Its final location and design will be confirmed through detailed design, having regard to public safety, accessibility, landscape integration and the need to avoid or minimise disturbance to avifauna.

The detailed alignment, design and management of the public accessway, fishing platform and bird viewing hide will be confirmed through detailed design and the relevant conditions of consent. Public access arrangements will provide for public safety, operational security, avifauna management, lighting, landscape treatment and compatibility with the working shipyard environment.

4.9 LIGHTING

Permanent lighting will be required for safe and efficient operation of the shipyard and drydock facility, including vessel movements, berth operations, security, access, emergency response, maintenance activities, and safe movement of people, vehicles and plant.

At this concept design stage, permanent lighting is expected to be provided through an extension of the existing Northport lighting grid across the reclamation. Lighting masts are expected to be approximately 35 m high, comprising a steel lighting platform mounted on a steel mast and foundation structure. The drydock or ship lift may also include its own operational lighting, with additional lighting requirements to be confirmed during detailed design.

All new floodlighting will use light emitting diode (LED), light emitting plasma (LEP) or equivalent lighting technology. Lighting poles will be finished in recessive colours where practicable to minimise visual prominence. Where practicable, lighting will be directed below the horizontal plane to reduce light spill. The colour temperature of new floodlighting will not exceed 4000 K unless otherwise certified through the lighting management process.

Lighting will be designed so that, as far as practicable, the principal light output is directed within the operational area. Lighting design will also need to minimise unnecessary light spill toward Blacksmiths Creek, Marsden Bay, adjacent intertidal

habitat, potential shorebird nesting habitat, potential kororā habitat, public access areas and nearby residential or recreation receptors.

An Operational Lighting Management Plan (OLMP) will be prepared and implemented in accordance with the conditions of consent. The purpose of the OLMP will be to minimise visual effects, light spill, glare and adverse effects on avifauna and other wildlife while maintaining safe and secure operation of the facility.

4.10 VESSEL MAINTENANCE ACTIVITIES AND OPERATIONAL CONTROLS

4.10.1 Overview of vessel maintenance activities

The facility will provide for vessel inspection, repair, maintenance, servicing, cleaning, surface preparation, coating, mechanical works, fabrication, fitting out and associated marine engineering activities.

These activities may include hull cleaning and marine growth removal; water blasting and abrasive blasting; sanding, grinding and cutting; corrosion removal and steel repair; welding and fabrication; coating application; servicing of vessel systems; and associated waste handling and support activities.

Activities may occur within the floating drydock or ship lift, on the hardstand or lifting platform, within workshops, or at the wet berth where haul-out is not required and the activity can be undertaken without uncontrolled discharge to the coastal marine area.

4.10.2 Surface preparation

Surface preparation will be undertaken to remove marine fouling, corrosion, salt residues and existing coatings prior to repair and repainting. Methods may include high-pressure water blasting, ultra-high-pressure water jetting, wet abrasive blasting, dry abrasive blasting and localised mechanical preparation such as sanding, grinding or cutting.

High-pressure water blasting and ultra-high-pressure water jetting will be the primary methods. Wet abrasive blasting may be used where an abrasive surface profile is required. Dry abrasive blasting will occur only in rare circumstances and will be encapsulated.

Prior to removal of existing coatings, the coating history of the vessel will be reviewed. Where the coating history is unavailable, incomplete, or indicates the possible presence of lead, mercury or tributyltin, testing will be undertaken and controlled removal methods used as required. Removed coatings and blasting residues will be captured and managed as waste.

Outdoor blasting, hammering and grinding will be restricted to 7.00 am to 6.00 pm, Monday to Saturday. Blasting methods, work locations and acoustic screening will be managed as necessary to comply with the applicable operational noise limits and the certified Shipyard Noise Management Plan (NMP).

Air discharge controls are described in Section 4.10.5 and the management of washwater and process runoff is described in Section 4.10.6.

4.10.3 Surface coating

Following surface preparation, coatings may be applied by brush, roller or spray.

Spray coating will be undertaken in accordance with the certified AQMP, including coating specific controls relating to application methods, wind and visual monitoring, screening, encapsulation, extraction, filtration and activity modification or cessation.

Encapsulation will not be required for all spray coating. It will be used where required having regard to the coating composition and the controls specified in the AQMP.

A coating containing copper oxide, copper(I) oxide, pyrethrin zinc, crystalline silica-quartz, titanium dioxide or zinc oxide will only be applied:

- (a) By brush or roller; or
- (b) By spray within encapsulation, with air from the encapsulated area appropriately extracted and treated before discharge.

Spray application of a coating containing hexamethylene diisocyanate monomer will be also undertaken within encapsulation using mechanical extraction and two-stage filtration, or an alternative treatment system providing an equivalent or better level of contaminant control.

These controls are intended to prevent offensive or objectionable off-site effects and uncontrolled deposition of coating contaminants to the coastal marine area.

4.10.4 Biofouling and operational residues

Vessel cleaning and maintenance will generate biofouling material, removed coatings, corrosion products, spent blasting media and other solid residues. The drydock / ship lift and landside work areas will be designed and operated to capture and contain those materials and prevent uncontrolled discharge to the coastal marine area.

Biofouling and other captured solid residues will be collected, stored and disposed of through an appropriately authorised waste pathway. Biosecurity controls applying to vessel biofouling are addressed separately in Section 4.10.7.

4.10.5 Air discharge management

Operational air discharges associated with surface preparation, coating, welding, grinding, cutting and related vessel maintenance activities will be managed through the certified AQMP.

The AQMP will provide the operational framework for method selection, wind and visual monitoring, screening, encapsulation, extraction and filtration, particulate and overspray monitoring, and activity modification or cessation where required. The specific controls applying to surface preparation and coating activities are described in Sections 4.10.2 and 4.10.3.

These measures are intended to avoid offensive or objectionable dust, overspray or odour effects beyond the Facility, adverse human health effects at sensitive receptors, and uncontrolled deposition of contaminants to the CMA.

4.10.6 Stormwater and washwater management

The Project distinguishes between standard stormwater runoff, high risk operational washwater and process runoff, and domestic wastewater.

Standard stormwater runoff from roofs, roads, accessways and low-risk hardstand areas will be collected and pre-treated before discharge to the extended Northport stormwater canal and pond system. Rainfall runoff from vessel work areas may enter

the stormwater system only when high-risk activities are not occurring and the relevant operational controls allow discharge to the canal network.

During vessel cleaning, water blasting, wet blasting, surface preparation and other activities generating high-risk washwater or process runoff, runoff from the relevant work areas will be isolated from the stormwater system. It will be captured, buffered and treated where required before discharge to the WDC wastewater network under trade waste approval, or removed to another authorised disposal pathway.

The indicative stormwater and operational runoff drainage layout is shown in **Figure 4-9**.

The drainage system will incorporate physical and operational controls, including shut-off or equivalent mechanisms where required, to maintain separation between standard stormwater and high risk operational runoff. The final catchment layout, pre-treatment systems, hydraulic controls, monitoring locations and discharge arrangements will be confirmed through detailed design and the applicable consent conditions.

An operational Stormwater Management Plan (SMP) will be prepared, certified and implemented before the relevant operational discharges commence.

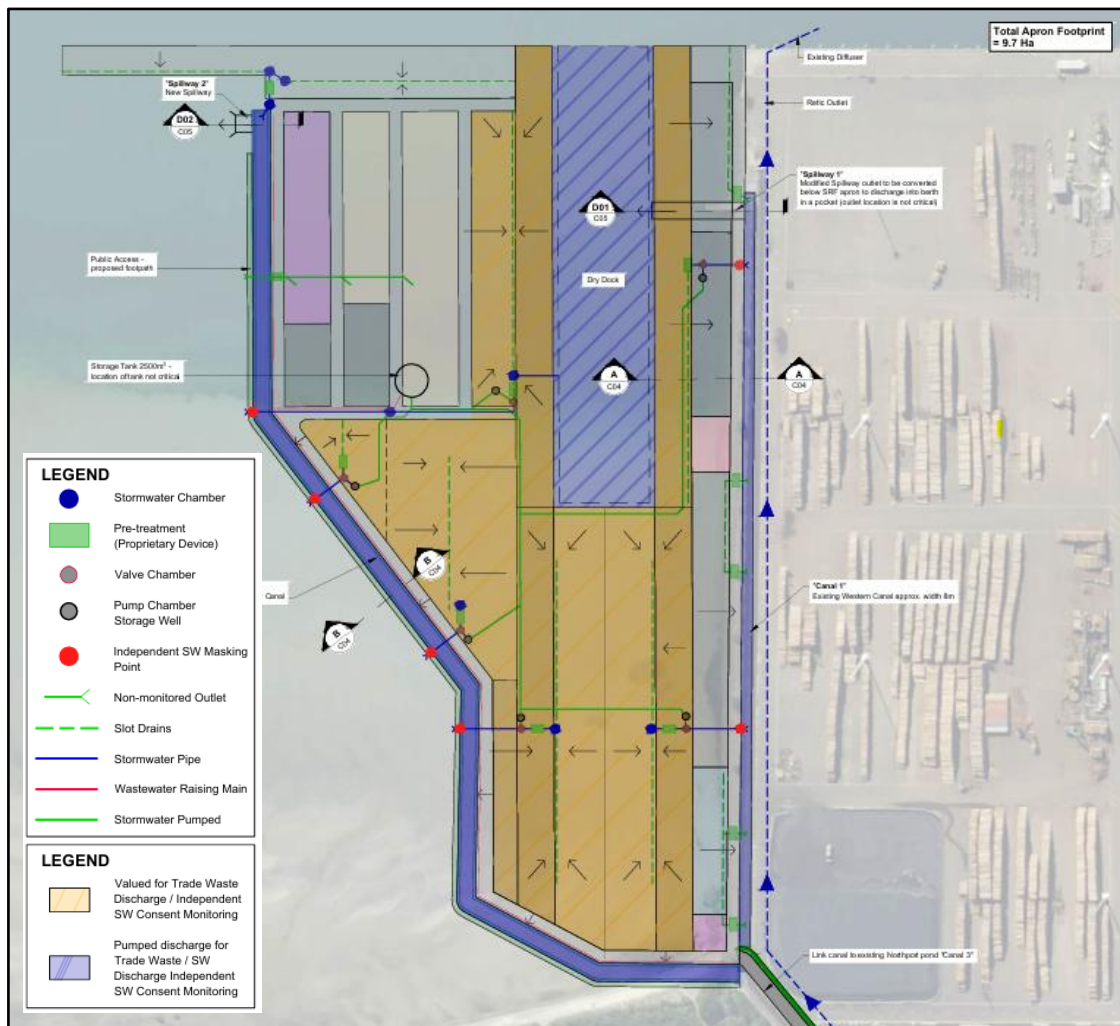


Figure 4-9: Indicative shipyard stormwater and operational-runoff drainage layout

4.10.7 Hazardous substances, spills and waste

The facility will store and use hazardous substances associated with vessel maintenance, including fuels, oils, paints, solvents, cleaning products and coating products. These substances will be stored, handled and used in accordance with applicable legislative requirements.⁸

Spill prevention and response measures will be maintained across the facility, including appropriate containment, spill response equipment, staff training, incident response procedures and reporting requirements.

Waste generated by vessel maintenance activities, including contaminated residues, spent abrasive media, removed coatings, oils, solvents and other

⁸ There are no hazardous substances rules in the Whangarei District Plan.

operational waste, will be collected, stored and removed from the site through an appropriately authorised waste or disposal pathway.

4.11 SITE SERVICING, BUILDINGS AND UTILITIES

The Project will include buildings, workshops, storage areas, utilities and servicing infrastructure required to support the operation of the shipyard and drydock facility.

The concept design provides for administration areas, project offices, welfare facilities, warehouses, covered storage areas, workshops, utilities, wastewater and environmental control areas, roads, working areas and laydown areas. The final location, form and extent of buildings and servicing infrastructure will be refined during detailed design in consultation with the selected facility operator.

The facility will require reticulated services and utilities, including power, water, telecommunications, compressed air, firefighting supply, wastewater, stormwater, washwater and other operational services. Shore power, water supply and compressed air will be provided to relevant berth and vessel maintenance areas where required.

The concept design anticipates a substantial power supply to support vessel servicing, shore power, plant, workshops, lighting, utilities and operational systems. Backup generators or other emergency power systems may also be required, with their number, location and output to be confirmed during detailed design.

Potable water and firefighting infrastructure will be provided across the facility. Fire hydrants are expected to be provided along berthing faces, with final spacing and details confirmed through detailed design.

Buildings and utilities will be designed to integrate with the reclamation, hardstand, vessel lifting system, access, stormwater, washwater, wastewater, lighting, security and public access arrangements.

4.12 SECURITY, OPERATIONAL SAFETY AND SEPARATION OF ACTIVITIES

The facility will be a working marine maintenance and industrial site and will require appropriate security, operational safety and access controls.

A single entry and exit point with gatehouse or equivalent control will be provided for operational security and traffic management. Security arrangements will be designed having regard to the operational requirements of the facility and any applicable port or maritime security requirements.

The concept design includes an approximately 4 m high combined visual / noise barrier and security fence along the southern and western perimeter of the reclamation, subject to confirmation through detailed design and the applicable noise, landscape and security requirements. This barrier will assist with separation between operational areas and public access areas, including the public walkway and replacement fishing platform. It will also assist with visual screening, safety, security and management of the interface between the shipyard and the Marsden Bay / Blacksmiths Creek environment.

The existing Northport noise wall is expected to remain in its current location.

The final security and operational separation arrangements will be confirmed through detailed design and relevant management plans.

4.13 CONSTRUCTION METHODOLOGY

4.13.1 Overview

The Project will be constructed as a maritime dredging, reclamation and marine infrastructure project, together with associated land based infrastructure, access, utilities, buildings and environmental control systems.

The main construction components are expected to include:

- (a) Site investigations;
- (b) Site establishment and clearance;
- (c) Access road, carparking and temporary construction access;
- (d) Relocation or adjustment of existing services and security fencing where required;
- (e) Construction of reclamation containment structures, including revetments and piled quay walls;
- (f) Dredging of the turning basin, berth pocket and drydock / ship lift pocket;

- (g) Placement and improvement of reclamation fill;
- (h) Construction of wet berth, wharf, suspended deck and other marine structures;
- (i) Installation of the floating drydock, ship lift or other vessel lifting system;
- (j) Paving, stormwater, washwater, wastewater, utilities and lighting;
- (k) Construction of buildings, workshops and servicing infrastructure; and
- (l) Commissioning of the facility.

At concept design level, the core civil and marine infrastructure works are expected to take approximately three years from mobilisation to completion. Installation and commissioning of the vessel lifting system, together with buildings and facilities, may occur within or following that period. The indicative overall construction and commissioning programme extends to approximately five years, subject to procurement, detailed design, contractor methodology, staging and final lifting system selection.

4.13.2 Reclamation and containment structures

The reclamation will be formed within engineered containment structures comprising rock revetments, quay walls and associated marine structures.

Rock revetments are expected to be constructed from landside where practicable, with some placement from marine plant potentially required in deeper water. The revetment core may comprise locally quarried rock or, where confirmed as geotechnically suitable, dredged silt and clay material processed and stabilised with cement to form a suitable bound material. Imported rock may be used where suitable dredged material is unavailable or insufficient. The outer face will be protected by appropriately sized rock armour, and the inner face may be lined with geotextile or an equivalent material to contain reclamation fill.

Piled quay wall structures may include anchored combi-wall structures comprising tubular steel piles, intermediate sheet piles, tie rods and rear anchor walls. Piling is expected to be undertaken using vibratory driving where practicable, with impact driving used where required to confirm load capacity or achieve final embedment.

4.13.3 Dredging and reclamation sequencing

Dredging and reclamation will be sequenced to enable suitable dredged material to be beneficially reused in the Project reclamation and the Northport Eastern Expansion consents reclamation works.

Stage One will provide the vessel haul-out pocket, layby berth and manoeuvring area required for the facility. Stage Two will provide additional capital dredging within the Northport Eastern Expansion consents dredging footprint so that the material requirements of both reclamation projects can be met.

Each dredging stage may take approximately 12–20 weeks, although actual duration will depend on the dredging plant, weather, material characteristics, production rates and management and placement of dredged material. The detailed sequence, containment arrangements, dredged material handling and construction controls will be set out in the CEMP (see draft at **Appendix 9A**) and the DMP required as conditions of consent. Capital dredging turbidity monitoring and management, marine ecology assurance monitoring, and bathymetric and shoreline monitoring will be undertaken in accordance with the EMMP (see draft at **Appendix 9I**).

Following placement, reclamation fill may require ground improvement, compaction, preload, surcharge or other geotechnical treatment to manage settlement, liquefaction susceptibility and the performance requirements of the hardstand, buildings and marine structures. The extent and method of treatment will be confirmed through further geotechnical investigation and detailed design.

4.13.4 Marine structures and vessel lifting infrastructure

The wet berth, wharf, suspended deck and associated marine structures will be constructed using methods appropriate to the final detailed design. These may include driven piles, precast or in-situ concrete deck elements, quay walls, fendering, bollards, safety ladders and services.

Piling is expected to involve vibro-driving where practicable, with impact driving used where required for final set, load capacity or constructability. Impact piling is the dominant underwater noise source for the purposes of marine mammal effects assessment. The final piling methodology, pile sizes, hammer energy, piling

sequence and construction programme will be confirmed through detailed design and contractor input and managed in accordance with the certified CEMP and MMMP.

The vessel lifting system will be procured, installed and commissioned following completion of the supporting marine and landside infrastructure.

4.13.5 Environmental management during construction

Construction will be managed through the certified CEMP and the other construction management plans and procedures required by the conditions of consent. These include the EMMP, MMMP, AMP and KMP (see draft plans in **Appendix 9** and otherwise the relevant draft conditions of consent), the DMP required under the conditions, together with the construction biosecurity, navigation safety construction traffic, and stakeholder communications plans to be prepared and certified before the relevant works commence. Collectively, those documents will address construction dust, erosion and sediment control, construction stormwater, dredging, marine mammals, avifauna, kororā, underwater noise, construction noise, biosecurity, navigation safety, hazardous substances, spill response, archaeology, traffic, public access, stakeholder communication and complaints.

4.14 MANAGEMENT PLAN FRAMEWORK

The Project has been assessed on the basis of a concept design. Detailed design will refine the final configuration of the vessel lifting system, reclamation edge treatment, dredging details, buildings, storage areas, utilities, stormwater, washwater, wastewater, environmental controls, lighting, access, public access and operational layout, subject to the scope of the application and the conditions and management plan certification processes proposed as part of the application.

Core performance standards, activity restrictions, monitoring requirements and response triggers will be secured through the proposed conditions of consent. Management plans provide the detailed procedures by which those requirements will be implemented.

The following draft management plans are provided at **Appendix 9**:

- Construction Environmental Management Plan — **Appendix 9A**;
- Marine Mammal Management Plan — **Appendix 9B**;
- Avifauna Management Plan — **Appendix 9C**;
- Kororā / Little Blue Penguin Management Plan — **Appendix 9D**;
- Air Quality Management Plan — **Appendix 9E**;
- Operational Traffic Management Plan — **Appendix 9F**; and
- Shipyard Noise Management Plan — **Appendix 9G**.
- Environmental Monitoring and Management Plan — **Appendix 9H**.

These draft management plans form part of the assessment basis for the application and demonstrate how the relevant construction, operational, monitoring and management measures can be implemented. They include the framework for capital dredging turbidity monitoring and management, marine ecology assurance monitoring, and bathymetric and shoreline monitoring through the EMMP. Each plan will be finalised and submitted for certification in accordance with the proposed conditions before the relevant activity commences.

The proposed conditions also require additional management plans and operational procedures to be prepared and certified before the relevant construction or operational activities commence. These include a Capital Dredging Management Plan (DMP), MDMP, Construction Biosecurity Management Plan, Operational Biosecurity Management Plan, a NSMP, operational SMP, OLMP and a CTMP. These documents are not provided as standalone draft plans at **Appendix 9**, and instead the detail required is contained in the consent conditions. They will be prepared once the relevant contractor, facility operator, detailed design, construction methodology and operational systems are known, in accordance with the applicable technical assessments and conditions.

Outline marine biosecurity management material is contained within the Marine Biosecurity Assessment at **Appendix 27**. It provides supporting technical context for the construction and operational biosecurity management plans or procedures required by the draft conditions.

Construction stormwater will be managed through the certified CEMP and the specific regional consent conditions. An operational SMP will be prepared and certified before the relevant operational discharges commence.

Navigation safety will be addressed through the NSMP required by the draft conditions.

Construction traffic will be managed through a CTMP prepared and certified before the relevant construction activities commence. Operational traffic will be managed through a certified OTMP prepared in general accordance with the draft plan at **Appendix 9G**.

Together, the detailed design, certification and management plan framework will ensure that the Project is implemented within the design envelope assessed in this application and in accordance with the environmental controls, monitoring and response procedures required by the conditions of consent.

4.15 INTERFACE WITH EXISTING NORTHPORT RESOURCE CONSENTS

The Project adjoins Northport and will affect existing Northport consent requirements including retention of the existing (western) fishing platform and related public access, landscaping and pōhutukawa planting on the western side of the port, and the high tide bird roost, and potentially the Northport stormwater pond system.

No change or cancellation of any existing Northport resource consent condition is sought through this substantive application.

Where implementation of a Project component requires:

- (a) A change to an existing Northport resource consent condition;
- (b) Approval from Northport or another consent holder;
- (c) An agreement concerning access to or use of Northport infrastructure; or
- (d) Another separate statutory or contractual authorisation,

that matter will be addressed through a separate process before the affected Project component is undertaken.

It should be noted that the high tide bird roost is a mitigation measure specific to the Northport Eastern Expansion Consents. However, to ensure that the effective operation of the roost is not compromised by the shipyard project, the application includes consent for a relocated high tide bird roost in anticipation of the related condition in the Eastern Expansion Consents being varied at a later date. As approval of the shipyard project is not conditional on the bird roost being constructed, a separate consent is sought for this.

The existing Northport resource consents are included in **Appendix 31** to provide the Panel with the relevant existing and consented environmental context. They are not included as approvals for variation or determination under this application.

5. APPROVALS SOUGHT AND FTAA REQUIREMENTS

5.1 OVERVIEW

MBIE seeks the following approvals for the Project under section 42 of the FTAA:

- (a) All necessary resource consents that would otherwise be applied for under the RMA, under section 42(4)(a); and
- (b) A Wildlife Act approval under section 42(4)(h) in relation to kororā / little blue penguin.

The resource consent requirements are identified in **Appendix 34**. The Wildlife Act approval is addressed in Section 8.

5.2 RESOURCE CONSENTS REQUIRED UNDER THE RMA

The Project requires resource consents for reclamation, coastal occupation, capital and maintenance dredging, marine structures, shipyard and vessel maintenance activities, earthworks and associated discharges to air and water.

MBIE seeks all necessary resource consents for the Project through this substantive application under section 42(4)(a) and Schedule 5 of the FTAA. The full suite of district and regional resource consents required is identified in **Appendix 34**.

5.3 PERMITTED ACTIVITIES RELIED ON UNDER THE RMA

In accordance with Schedule 5(5)(a) of the FTAA, the permitted activities relied on as part of the proposal are identified in **Appendix 35**.

5.4 RELATIONSHIP WITH EXISTING NORTHPORT CONSENT CONDITIONS

The Project interfaces with activities and infrastructure subject to existing Northport resource consents, as described in Section 4.15.

No change or cancellation of an existing Northport resource consent condition is sought through this substantive application. Any separate variation, consent holder approval, infrastructure agreement or other authorisation required to implement an interface with Northport's consented activities or infrastructure will be addressed separately.

Copies of the relevant Northport resource consents are included at **Appendix 31**.

5.5 APPROVAL REQUIRED UNDER THE WILDLIFE ACT 1953

A Wildlife Act approval is sought under section 42(4)(h) of the FTAA in relation to kororā / little blue penguin.

The approval is sought on a precautionary basis because, despite no kororā having been recorded within the Project footprint during surveys undertaken to date, the western Northport revetment is potential kororā habitat. The scope of the approval and assessment against the Schedule 7 requirements are addressed in Section 8.

5.6 FTAA INFORMATION REQUIREMENTS

The information required by sections 43 and 44 of the FTAA, Schedule 5 for the resource consent approvals and Schedule 7 for the Wildlife Act approval is provided throughout this substantive application and its supporting appendices.

Appendix 2 contains a consolidated checklist identifying each applicable statutory information requirement and where it is addressed. The resource consent assessment is contained principally in Sections 3–7 and the Wildlife Act approval assessment is contained in Section 8.

5.7 INELIGIBLE ACTIVITIES

The application does not seek approval for any activity that is ineligible under section 5 of the FTAA.

The Project does not involve an activity prohibited under any relevant RMA plan, proposed plan, national environmental standard or regulations made under the RMA, and the Project area is not located within a recognised customary marine title area or protected customary rights area under the Marine and Coastal Area (Takutai Moana) Act 2011.

5.8 STATUTORY FRAMEWORK

5.8.1 Overview

Section 7 addresses the statutory framework applying to the resource consent approvals sought under the FTAA, including the relationship with the RMA and the relevant national and regional planning instruments.

The separate statutory assessment for the Wildlife Act approval is provided in Section 8.

5.8.2 Competing application

Northport has lodged application APP.005055.02.03 with the NRC for replacement resource consents authorising capital dredging, deposition of dredged material and associated discharges previously authorised by CON20090505502, 05 and 34. At the time of preparing this application, Northport's application has not yet been determined by NRC.

The dredging sought through the Northport application spatially overlaps (in part) with dredging proposed for the Project. MBIE considers that APP.005055.02.03 may constitute a competing application in relation to the overlapping dredging approvals sought through this substantive application. Accordingly, MBIE has carefully designed the Project, and this application, not to overlap with the area (i.e. volume) of dredging that is the subject of Northport's application for replacement resource consents for APP.005055.02.03.

The physical relationship between the two dredging proposals is described in Section 4.3.

5.8.3 Purpose and decision-making direction of the FTAA

In determining a substantive application, an Expert Panel is required to give the greatest weight to the purpose of the FTAA. This statutory direction modifies the usual approach to decision-making under the RMA.

The purpose of the FTAA, as set out in section 3, is to facilitate the delivery of infrastructure and development projects with significant regional or national benefits.

The Project is listed in Schedule 2, and its regional and national benefits have been assessed in the Economic Impact Assessment at **Appendix 10** and the Regional and National Public-Interest Benefits Report at **Appendix 36**.

The Economic Impact Assessment concludes that the Project will provide significant regional benefits through substantial capital investment, sustained employment, value added and household income in Northland. It also identifies significant national economic benefits, including avoided offshore transit and vessel unavailability costs and retained maritime servicing expenditure.

The Regional and National Public-Interest Benefits Report identifies the strongest and most directly attributable wider benefits as reduced reliance on offshore heavy marine maintenance, improved domestic control over vessel maintenance scheduling and return-to-service, strengthened transport and maritime resilience, and increased domestic strategic capability and optionality. It also identifies broader maritime sector, workforce, supplier, environmental and biosecurity benefits, although the scale and distribution of those outcomes are more dependent on facility utilisation and future operating, commercial, procurement and workforce settings.

5.8.4 Scope of approvals and applicable legislation

The approvals sought through this substantive application include resource management approvals that would otherwise be required under the RMA and a wildlife approval that would otherwise be required under the Wildlife Act 1953.

Under the FTAA, these approvals are considered through a single, integrated decision-making process, subject to the purpose and decision-making direction of the FTAA.

5.8.5 Relationship with the Resource Management Act

While approvals sought under the FTAA may relate to matters ordinarily assessed under the RMA, the FTAA establishes a modified decision-making framework.

Relevant national policy statements, regional policy statements, plans and proposed plans remain relevant considerations but must be applied in a manner consistent with the purpose and weighting direction of the FTAA.

5.8.6 Role of Part 2 of the RMA

Part 2 of the RMA remains relevant to the resource consent approvals sought for the Project. Schedule 5, clause 17(1)(b) of the FTAA requires the Panel to take into account the provisions of Part 2, together with the other specified provisions of the RMA, that direct decision-making on an application for resource consent.

Those provisions are applied within the decision-making framework established by the FTAA. Under Schedule 5, clause 17(1), the Panel must give the greatest weight to the purpose of the FTAA. The relevance of Part 2 and the applicable RMA planning instruments to the Project is addressed in Section 7.

5.8.7 Wildlife Act 1953 approval

Where a wildlife approval is sought, the Panel is required to consider the purpose and relevant provisions of the Wildlife Act 1953.

The assessment of effects on protected wildlife and the application of the Wildlife Act to the Project are addressed in Section 8 of this application, informed by the statutory framework described in this section.

5.8.8 Treaty settlements and statutory obligations

The FTAA requires that decision-making be undertaken consistently with Treaty of Waitangi settlements and other statutory obligations that apply to the Project area.

Relevant Treaty settlement, MACA and customary fishing matters are described in Sections 3.2.6 and 3.2.7. Engagement with tangata whenua, iwi, hapū and MACA applicant groups is addressed in Section 2.7.3, and the cultural effects of the Project, including matters raised through that engagement and the interim Patuharakeke CIA, are assessed in Section 6.19.

6. ASSESSMENT OF ENVIRONMENTAL EFFECTS

6.1 INTRODUCTION

This section assesses the actual and potential effects of constructing, operating and maintaining the Project for the purposes of Schedule 5 of the FTAA.

The assessment has been prepared in accordance with the information requirements applying to a substantive application under the FTAA, including the relevant requirements of Schedule 5. It addresses the positive and adverse effects of the Project, including:

- (a) Construction effects;
- (b) Effects arising from reclamation and occupation of the coastal marine area;
- (c) Coastal process and water quality effects;
- (d) Effects on marine and coastal ecology, avifauna, kororā and marine mammals;
- (e) Noise and vibration effects;
- (f) Air quality effects;
- (g) Landscape, natural-character, visual amenity and lighting effects;
- (h) Recreation and public access effects;
- (i) Archaeological and cultural effects;
- (j) Navigation, traffic and access effects;
- (k) Marine biosecurity effects;
- (l) Natural hazard and climate change effects; and
- (m) Cumulative and overall effects.

The assessment draws on:

- (c) The existing environment described in Section 3;
- (d) The Project description in Section 4;
- (e) The consultation and engagement described in Section 2.7 and recorded in Appendix 4;
- (f) The proposed conditions in Appendix 7;
- (g) The proposed management plans in Appendix 9 and the additional management plans and procedures required by the proposed conditions; and

- (h) The specialist technical assessments contained in Appendices 10–28 and the interim Patuharakeke CIA at Appendix 29.

6.2 EXISTING ENVIRONMENT

For the purposes of this assessment, the environment against which effects are assessed comprises:

- (a) The existing physical environment at and around the application site;
- (b) The existing Northport, CINZ and Marsden Point industrial / port environment;
- (c) Existing lawful activities and established infrastructure within and adjoining the CMA;
- (d) Existing resource consents and approvals that are implemented or form part of the existing environment, including the Northport expansion consents, and the CINZ channel optimisation consents (see Section 3.18 of this report).
- (e) The existing coastal processes, ecological, cultural, landscape, recreational and navigation values of Marsden Bay, Blacksmiths Creek and the lower Whangārei Harbour; and
- (f) The anticipated effects of climate change and sea level rise over the relevant design and consent duration.

The Project adjoins existing port and energy infrastructure in an environment already affected by reclamation, dredging, navigation, industrial activity and coastal structures. The assessment also accounts for the ecological, cultural, landscape, recreational, water quality and coastal process values that remain at Marsden Bay, Blacksmiths Creek and within the lower harbour.

6.3 POSITIVE EFFECTS / PROJECT BENEFITS

6.3.1 General

The Project will provide significant regional and national benefits. Its economic effects and quantified benefits are assessed in the Economic Impact Assessment at **Appendix 10**. Its wider strategic, resilience, capability, workforce, supplier and environmental public interest benefits are assessed in the Regional and National Public Interest–Benefits Report at **Appendix 36**.

6.3.2 Regional economic context

The regional benefits must be considered in the context of Northland's economic circumstances. Northland's real GDP per capita in 2025 was approximately \$53,000, compared with approximately \$81,000 nationally. The region's unemployment rate was 6.1%, compared with 5.0% nationally, and approximately 19.1% of Northland residents aged between 15 and 24 were not in employment, education or training, compared with approximately 12.9% nationally.

The Marsden Point locality has recently experienced the loss of a major high productivity industrial employer. The closure of the Marsden Point refinery removed approximately 400 direct petroleum/refining jobs. Employment of a comparable scale and character is unlikely to be re-established in the locality without deliberate investment in a substantial industrial activity.

Northland nevertheless has an existing concentration of marine related employment. The Economic Impact Assessment finds that the region is at least twice as specialised in the wider marine sector as New Zealand as a whole. That provides an appropriate base for the Project, although the scale and specialist nature of the proposed facility mean that workforce development and upskilling will be required.

6.3.3 Capital investment and value added

The current estimated capital cost of the Project is approximately \$788 million. Approximately \$249 million is expected to relate to imported materials, specialist equipment and other offshore expenditure, leaving approximately \$539 million of estimated domestic construction expenditure.

Construction and base-case operations are estimated to support approximately \$828 million of discounted value added across New Zealand over the modelled period at an 8% discount rate. Construction accounts for approximately \$462 million and base-case operations approximately \$366 million. Approximately \$435 million of the combined value added is estimated to accrue to Northland.

6.3.4 Employment and household income

Construction and base case operations are estimated to support approximately 20,380 job-years nationally over the modelled period. Approximately 13,961 job-years, or 69%, are estimated to occur in Northland.

Base case operations are estimated to support an average of approximately 440 modified employment count positions each year, including approximately 259 direct positions. The operational employment benefits are expected to continue throughout the operating life of the facility and will be more regionally concentrated than the construction phase benefits.

Household income accruing to Northland households is estimated to have a present value of approximately \$244 million. The Economic Impact Assessment describes this as equivalent to approximately \$2,800 per Northland household, although the benefits will not be distributed equally between households.

The Project will create sustained demand for skilled trades, maritime engineering, fabrication, transport, professional services and supporting industries. Because the region has underutilised labour but does not presently have all the specialist capacity required, that demand will provide a substantial platform for training, apprenticeships, workforce development and the attraction or return of skilled workers to Northland. The scale and regional distribution of those wider capability outcomes will depend on sustained operations, workforce planning, procurement settings and regional participation.

6.3.5 National maritime capability

New Zealand does not presently have a permanent drydock capable of accommodating many of the larger vessels on which its freight, passenger, energy, government and other nationally important maritime functions depend. The existing permanent drydocks at Lyttelton and Devonport are materially constrained by their dimensions and operational circumstances. Relevant larger vessels must therefore rely substantially on facilities in Australia or Asia for scheduled out-of-water maintenance, repair and regulatory surveys.

The Project will establish a domestic heavy marine maintenance option for suitable vessels that would otherwise require offshore facilities. This will reduce exposure to overseas drydock availability, booking priorities, logistics constraints and the additional vessel unavailability associated with offshore transit. It will provide vessel operators with greater control over maintenance scheduling and return-to-service planning and will strengthen an important enabling component of New Zealand's transport and supply chain resilience.

The Project will also increase New Zealand's maritime strategic capability and optionality by expanding the domestic infrastructure available to maintain and support suitable nationally significant vessels. It will broaden the practical options available to the Crown and vessel operators for maintenance planning, lifecycle stewardship, fleet renewal and future maritime capability. The vessel classes and activities that can be accommodated will depend on the final dimensions, technical systems, security arrangements and operating model. This strategic benefit arises from establishing and preserving the domestic capability and does not depend on a commitment from any particular customer to use the facility.

6.3.6 Avoided costs and net operating benefit

Where New Zealand vessels are required to travel to overseas drydock facilities, operators incur transit fuel, overseas port and agency costs and lose productive operating days during the outward and return voyages. The Economic Impact Assessment estimates that the present value of avoided offshore transit and vessel unavailability costs will be approximately \$80 million to \$124 million at an 8% discount rate. This estimate is based on four large vessel offshore maintenance voyages per year, adopted as a deliberately conservative floor rather than as a demand or utilisation assumption.

The Economic Impact Assessment also estimates a present value of approximately \$109 million in incremental net operating surplus over the appraisal period at an 8% discount rate. This reflects maintenance expenditure retained in New Zealand rather than paid to overseas facilities and is net of work displaced from existing domestic facilities.

Other potential national benefits have not been quantified. These include carbon savings from avoided overseas voyages, labour market benefits arising from the use of otherwise unemployed or underemployed labour, resilience and option value, sovereign and defence capability and any avoided or deferred expenditure required to repair, replace or supplement existing domestic drydock infrastructure. The wider public interest significance and principal realisation dependencies of the resilience, strategic capability, workforce, environmental and biosecurity pathways are assessed in **Appendix 36** and summarised in 6.3.7 below.

6.3.7 Wider public interest benefits

The Project will provide a wider enabling base for New Zealand's maritime sector and for regional capability in Northland / Te Tai Tokerau. By enabling more complex marine maintenance work to be undertaken domestically, it will reduce a material infrastructure constraint and strengthen marine engineering, specialist supplier, workforce and training capability.

The scale and distribution of those benefits will depend on facility utilisation and future operating, procurement and workforce settings. Where domestic servicing replaces an offshore maintenance voyage, the Project will also reduce transit fuel use and associated emissions and bring the relevant maintenance activity within New Zealand's environmental, waste management and biosecurity systems.

6.3.8 Conclusions

Taken together, the Economic Impact Assessment and the Regional and National Public-Interest Benefits Report establish a significant regional and national benefits case for the Project.

The regional benefits include substantial capital investment, sustained employment, value added and household income, together with the establishment of a long term industrial and capability anchor in Northland. The strongest national benefits are the reduction of a material offshore marine maintenance dependency, improved domestic control over vessel maintenance scheduling and return-to-service, strengthened transport and maritime resilience, and increased maritime strategic capability and optionality.

Broader maritime sector, workforce, training, supplier, environmental and biosecurity benefits are also material, although their scale will depend on facility utilisation and future operating, procurement and workforce settings.

6.4 CONSTRUCTION EFFECTS OVERVIEW

Construction of the Project will involve a substantial programme of marine and land-based works, including site establishment, construction of access and parking areas, reclamation containment works, capital dredging, placement and improvement of reclamation fill, construction of wharf, wet berth and other marine structures, installation of the floating drydock or ship lift, construction of hardstand areas, stormwater and washwater infrastructure, services, lighting, buildings and other supporting infrastructure.

The overall construction period is expected to be approximately 3–5 years from mobilisation to completion. Building works, installation of operational systems and commissioning of the vessel lifting infrastructure may overlap with, or follow, the civil infrastructure works. Construction will therefore occur over an extended period and will involve a combination of dredging plant, marine construction plant, earthmoving equipment, piling equipment, heavy vehicles, cranes and other specialist construction equipment.

The principal construction effects are assessed in the relevant topic sections that follow. In summary, the main construction related effects include:

- (a) Temporary occupation and disturbance of the CMA during dredging, reclamation, piling and marine structure construction;
- (b) Suspended sediment, turbidity and localised deposition associated with capital dredging, reclamation formation, the discharge of decant water from the reclamation containment area, and other marine construction works;
- (c) Construction noise and vibration, including potential effects from piling, earthworks, dredging, reclamation construction and heavy vehicle movements;
- (d) Underwater noise effects on marine mammals and fish from piling, dredging and other marine construction activities;

- (e) Construction dust from site clearance, earthworks, handling of reclamation fill, stockpiles, exposed surfaces, vehicle movements, access road construction and carpark construction;
- (f) Disturbance of avifauna, including shorebirds using the Marsden Bay / Blacksmiths Creek environment, and the potential for construction activity to affect nesting, roosting or foraging behaviour;
- (g) Potential effects on kororā / little blue penguin if birds are present within existing or proposed rock revetment habitat;
- (h) Temporary disruption or modification of public access and recreation opportunities near the existing western fishing pier, Blacksmiths Creek walkway, adjacent beach and coastal edge;
- (i) Construction traffic effects associated with workforce movements, delivery of materials, transport of plant and equipment, and removal of waste or unsuitable material;
- (j) Temporary navigation and maritime safety effects arising from dredging, marine construction plant, barges, exclusion areas and construction related vessel movements;
- (k) Accidental discovery risks associated with earthworks or coastal works, notwithstanding the low archaeological sensitivity identified for the Project footprint;
- (l) Biosecurity risks associated with marine plant, construction equipment and vessel movements; and
- (m) Spill, hazardous substance and construction stormwater risks associated with construction compounds, fuel storage, plant operation and material handling.

Construction effects will be managed through the proposed conditions of consent and the certified management plans required by those conditions. Together, those controls will address dredging, erosion and sediment control, construction traffic, marine mammals, avifauna, kororā / little blue penguin, marine biosecurity, air quality, navigation safety, stakeholder communications, complaints, incident management and other relevant construction matters.

The proposed management framework will require construction works to be undertaken in accordance with defined methodologies, monitoring requirements, trigger levels and response procedures. It will also provide for pre-construction surveys, construction stage monitoring, reporting to the relevant consent authorities, and implementation of corrective actions where monitoring identifies that effects are greater than anticipated or that additional management measures are required.

Construction effects will be temporary when compared with the operational life of the Project, but they will not be insignificant. In particular, dredging, reclamation, piling, marine construction, construction traffic, construction noise, dust, underwater noise and ecological disturbance will require active management. The subsequent sections of this AEE assess those effects in more detail and identify the relevant avoidance, mitigation, monitoring and management measures proposed.

Subject to the proposed conditions and certified management plans, construction effects are expected to be able to be appropriately managed. That conclusion is based on clear performance standards, management procedures, monitoring, response triggers and enforceable conditions.

6.5 RECLAMATION AND PERMANENT CMA OCCUPATION

The reclamation will result in the permanent occupation and conversion of part of the CMA to land. This is a substantive and permanent physical change within the Project footprint. The effects assessment therefore focuses on the functional need for the reclamation, the consideration of practicable alternatives, the appropriateness of locating the reclamation adjacent to existing maritime industrial infrastructure, and the measures proposed to avoid, remedy, mitigate or otherwise manage adverse effects beyond the footprint.

6.6 COASTAL PROCESSES AND DREDGING

6.6.1 Introduction

The coastal processes and dredging effects of the Project are assessed in the Coastal Processes Assessment at **Appendix 13** and the MO Assessments at **Appendix 14**. This section summarises the findings of those assessments.

The key coastal processes matters relevant to the proposal are:

- a) Permanent occupation of the CMA by reclamation and structures;
- b) Construction effects associated with reclamation, seawalls and dredging;
- c) Changes to waves, currents and sediment transport;
- d) Effects on Marsden Bay and the Blacksmiths Creek spit;
- e) Effects on bathymetry, seabed morphology and maintenance dredging requirements;
- f) Effects on water levels, the wider lower harbour, Mair Bank, the ebb tide delta and the open coast;
- g) Potential effects on existing and future coastal hazards; and
- h) Proposed mitigation, management and monitoring.

6.6.2 Construction effects

Reclamation and seawalls

Construction of the reclamation and seawalls will involve works within and adjacent to the CMA. These works have the potential to cause temporary and localised effects on coastal processes through occupation of the seabed, construction of edge protection, temporary disturbance of seabed sediments, and short-term changes to local wave and current patterns around the active works area.

Construction of the reclamation will also generate decant water as water drains from placed fill or accumulates within the reclamation containment area. Decant water will be discharged to the coastal marine area under controlled conditions. The principal potential effects are temporary increases in suspended sediment and turbidity close to the discharge point. These effects form part of the wider construction related sediment effects assessed for the reclamation and will be managed through the discharge standards, monitoring requirements, trigger levels and response procedures contained in the proposed NRC conditions.

The Coastal Processes Assessment concludes that, provided the rock and fill materials used for seawalls are suitably clean and free of excessive fines or contaminants, the potential for significant sediment plumes from seawall construction to extend beyond the proposed works area is low. Construction effects

on physical coastal processes outside the immediate reclamation and seawall area are therefore expected to be negligible.

This conclusion is reasonable given the nature of the works, the modified port setting, and the fact that any changes to currents or waves during construction will be temporary and localised. Construction of the reclamation edge will progressively establish the permanent coastal edge condition that has been assessed as part of the long-term coastal processes assessment.

Capital dredging

Capital dredging is required for the vessel manoeuvring area, berth pocket and vessel haul-out pocket. Stage One dredging is expected to generate approximately 753,209 m³ of material, comprising approximately 622,229 m³ from the vessel manoeuvring area and approximately 130,980 m³ from the vessel haul-out pocket. Suitable dredged material will be beneficially reused as reclamation fill. Stage Two involves approximately 710,600 m³ within the dredging footprint authorised by the Northport Eastern Expansion consents. Maintenance dredging is also expected to be required, particularly during the first few years following capital dredging as the dredged side slopes settle.

Dredging has the potential to generate suspended sediment plumes and localised deposition. The Coastal Processes Assessment identifies that sediment plumes are expected to generally follow the main channel, with the release of fines and associated deposition largely limited to the dredge footprint and the area immediately west of the dredging areas. Sedimentation within the dredged footprint will be addressed by dredging to the required design levels. Any sedimentation immediately west of the dredged area is expected to either remain localised or return to the dredged area over time, where it can be addressed through maintenance dredging.

The assessment also notes that previous dredging observations suggest modelled plume effects may be conservative. On that basis, and subject to appropriate dredging controls, monitoring and monitoring and response measures, construction effects on coastal processes arising from dredging are assessed as minor.

Management measures will include dredge plume monitoring, confirmation of dredging methodology, controls on overflow or release of fines where relevant, and response measures such as modifying dredging operations, timing works to avoid higher tidal flow periods, or using additional controls where monitoring identifies a need.

6.6.3 Permanent occupation effects

The most direct coastal process effect of the proposal is the permanent occupation of the CMA by reclamation and associated structures.

The proposed reclamation will convert part of the existing seabed and intertidal / subtidal CMA into land. Within that footprint, natural coastal processes will no longer occur. This is an unavoidable consequence of reclamation and represents a permanent physical change to the receiving environment.

The Coastal Processes Assessment records that the reclamation will occupy approximately 9.7 ha, including around 2 ha of intertidal area, with the remainder being subtidal. The occupation effect is therefore spatially significant within the footprint itself. However, the assessment of wider coastal process effects indicates that the consequences of that occupation beyond the footprint are limited, and do not materially alter the stability or functioning of the wider lower harbour, harbour entrance, Mair Bank, ebb tide delta or open coast.

For AEE purposes, the occupation effect is acknowledged as a permanent localised adverse effect. It is also distinguished from broader process effects. The technical evidence indicates that while the proposal will permanently occupy part of the CMA, it is not expected to cause significant adverse changes to regional hydrodynamics, wider sediment transport pathways, harbour entrance stability or open coast shoreline processes.

6.6.4 Effects on waves

The proposed reclamation will extend westward from the existing Northport reclamation into the Marsden Bay environment. The Coastal Processes Assessment indicates that the proposal will have limited effect on ocean swell entering the

harbour, because swell energy is already substantially reduced by the harbour entrance geometry, Whangārei Heads and the ebb tide delta.

The more relevant wave effect is localised sheltering within the eastern end of Marsden Bay. The reclamation is expected to increase sheltering from some wind generated waves, particularly from the northern to north-eastern sectors. This may further reduce wave energy in the south-eastern corner of Marsden Bay, adjacent to the existing port reclamation.

This localised reduction in wave energy may favour continued or increased mangrove establishment in the more sheltered south-eastern corner of Marsden Bay. It may also slightly influence the existing shoreline adjustment of the Blacksmiths Creek spit by modifying the local wave environment. However, these effects are predicted to be localised and do not represent a significant change to the broader wave climate of the lower harbour or open coast.

Effects on waves are therefore assessed as minor.

6.6.5 Effects on currents and transport

The hydrodynamic modelling assesses the Project reclamation and Stage One dredging and, separately, the Project together with Stage Two dredging and the Northport eastern reclamation.

Both scenarios produce the same general pattern: reduced current speeds within and immediately adjacent to the dredged areas and localised changes along parts of the main channel and wharf edge. The Stage Two scenario extends those changes over a larger dredged area. Changes outside the port and dredged areas are small, generally less than approximately 0.1 m/s.

The modelling does not identify significant changes in tidal velocity beyond the dredged and port areas. The effects on currents and associated sediment transport within the lower harbour and tidal inlet are therefore assessed as low to minor.

6.6.6 Effects on Marsden Bay and Blacksmiths Creek spit

Marsden Bay and the Blacksmiths Creek spit are the most relevant local coastal process receptors west of the proposed reclamation.

The existing environment already includes ongoing shoreline and spit adjustment. The Blacksmiths Creek spit has migrated landward over time, and intertidal bedforms seaward of the creek show evidence of movement towards the existing port corner. These changes are part of the existing dynamic behaviour of the Marsden Bay / Blacksmiths Creek system.

The proposed reclamation may locally increase sheltering at the eastern end of Marsden Bay. This could slightly accelerate the existing trend of shoreline adjustment and roll-over of the Blacksmiths Creek spit. The Coastal Processes Assessment also identifies the potential for increased mangrove growth in the more sheltered south-eastern corner of Marsden Bay.

Importantly, the report concludes that sediment within the Marsden Bay system is expected to remain within the bay. There are no expected changes to the Blacksmiths Creek outlet itself or to areas west of Blacksmiths Creek. The potential effects are therefore localised and relate primarily to the existing dynamic spit / intertidal margin immediately west of the port.

Effects on Marsden Bay and the Blacksmiths Creek spit are assessed as minor, subject to the proposed monitoring of shoreline and seabed changes.

6.6.7 Effects on bathymetry and maintenance dredging

The lower harbour and port basin are already subject to bathymetric monitoring and dredging associated with existing port operations. The Coastal Processes Assessment identifies that much of the lower harbour is broadly stable, but that localised changes occur around Snake Bank, channel margins, dredged areas and transition slopes.

Sedimentation is expected principally on the western side slopes of the dredged cut and within the Stage One operational berth and manoeuvring areas. Periodic maintenance dredging will be required within those Stage One areas, particularly during the first years after capital dredging while the side slopes adjust. The Stage Two over-dredged area is intended to provide reclamation material and will be allowed to infill. It will not be maintained at the full Stage Two dredge depth.

The key management response is to monitor the dredged areas, retain pre- and post-dredging surveys, and record maintenance dredging volumes and locations so that future trends can be understood and managed.

Subject to that approach, effects associated with bathymetric change and maintenance dredging are assessed as minor.

6.6.8 Effects on water levels and tidal prism

The proposed reclamation is small relative to the overall area and tidal prism of Whangārei Harbour. The Coastal Processes Assessment concludes that the proposal will not result in any measurable change to water levels within the harbour.

The proposal also does not modify the narrowest part of the harbour entrance, which controls tidal exchange. Accordingly, the proposal is not expected to materially affect the harbour tidal prism, tidal range, or water levels within the wider harbour.

Effects on water levels are assessed as nil.

6.6.9 Effects on the inner harbour, Mair Bank, ebb-tide delta and open coast

The Coastal Processes Assessment concludes that no changes are expected to the wider inner harbour west of Marsden Bay, the ebb tide shoal, Mair Bank or the open coast shoreline. This means that, while the proposal will result in permanent local occupation of the CMA and localised changes to currents, waves and sedimentation near the works, it is not expected to affect the broader geomorphic stability of the harbour entrance, the functioning of Mair Bank, or open coast shoreline processes along Bream Bay.

Effects on the wider inner harbour, Mair Bank, the ebb tide delta and the open coast are therefore assessed as nil to negligible.

6.6.10 Effects on coastal hazards and climate change response

The sandy shorelines of Marsden Bay and the lower Whangārei Harbour are already susceptible to coastal erosion and are expected to experience increased erosion pressure over time as a result of sea level rise and climate change. The main future driver of coastal hazard risk will be rising sea levels, which will allow waves and elevated water levels to act further landward and more frequently.

The Coastal Processes Assessment concludes that the proposal will have only minor effects on present day tidal flows, wave energy and sediment transport, and that these effects are unlikely to significantly change under future sea level rise conditions. The proposal does not modify the harbour entrance throat, which is the controlling feature for tidal exchange.

Accordingly, while the proposal will be located within a coastal environment affected by future climate change, it is not expected to materially increase coastal hazard risk beyond the immediate occupation footprint. Effects on existing and future coastal hazards are assessed as minor.

6.6.11 Tsunami

The wider harbour area is vulnerable to tsunami from distant and local sources. Tsunami events could generate high current velocities and large-scale sediment movement within the harbour entrance, nearshore areas, ebb tide delta and lower harbour.

The Coastal Processes Assessment records that the proposal does not modify the narrowest part of the inlet throat and is therefore not expected to change the large-scale response of the wider harbour to tsunami events.

Following a significant tsunami event, inspection of the channel, port basin and navigation areas will likely be required in any event, irrespective of the proposal, to confirm safe operability and identify any required maintenance dredging.

The proposal is therefore not expected to materially alter tsunami hazard exposure or the wider harbour tsunami response. Effects in relation to tsunami are assessed as negligible.

6.6.12 Mitigation and management

The principal unavoidable coastal process effect is permanent occupation of the CMA within the reclamation footprint. There is no practicable way to fully avoid that effect while still providing the proposed drydock / shipyard facility in this location.

The proposal nevertheless incorporates a range of measures to manage coastal process effects, including:

- (a) Locating the facility immediately adjacent to the existing Northport reclamation and modified port environment;
- (b) Designing the reclamation and dredged areas to integrate with the existing port basin and harbour edge;
- (c) Using dredged material beneficially for reclamation fill, rather than relying on offshore disposal;
- (d) Managing reclamation and seawall construction to minimise sediment release;
- (e) Controlling dredging methodology through the certified Capital DMP and managing dredging related turbidity through the certified EMMP;
- (f) Undertaking maintenance dredging as required to manage expected sedimentation within dredged areas;
- (g) Undertaking marine ecology assurance monitoring and shoreline, intertidal, subtidal and bathymetric monitoring in accordance with the certified EMMP; and
- (h) Retaining survey and dredging records to inform future management.

6.6.13 Monitoring

The Coastal Processes Assessment recommends monitoring focused principally on Marsden Bay and the dredged areas, where localised coastal process change is most likely to occur as a result of the Project.

The monitoring requirements proposed for the Project are set out below and are reflected in the draft EMMP at **Appendix 9I** and the proposed conditions.

The following monitoring is recommended:

- (a) Capital dredging turbidity monitoring and associated investigation and management responses under the certified EMMP;
- (b) Intertidal, subaerial and bathymetric surveys within Marsden Bay;
- (c) Surveys after completion of each stage of development;
- (d) Annual surveys for a period of not less than five years following completion;
- (e) Ongoing collection or use of wave and water level data to interpret observed shoreline and seabed changes;
- (f) Sediment sampling within the eastern end of Marsden Bay if required to confirm changes in surficial sediment properties; and

- (g) Retention of pre- and post-dredging surveys and records of maintenance dredging volumes and locations.
- (h) Annual bathymetric surveying of the Stage One turning / manoeuvring area, including the dredged extent and side slopes and at least 500 m of seabed to the west and north of the dredged area.

This monitoring framework is appropriate because it focuses on the area where effects are most likely to be observed, while avoiding unnecessary monitoring of areas where the technical assessment predicts nil or negligible change.

6.6.14 Summary / Conclusions

The proposal will result in permanent occupation of part of the CMA and localised changes to the physical coastal environment within and immediately adjacent to the reclamation and dredged areas. These effects are inherent in the development of a reclamation based marine maintenance facility.

However, the Coastal Processes Assessment concludes that the wider effects on coastal processes will be limited. Construction effects associated with reclamation and seawalls are expected to be negligible, and construction effects associated with dredging are expected to be minor subject to appropriate management. Long-term effects on waves are assessed as minor, effects on currents and sediment transport are low to minor, effects on Marsden Bay and the Blacksmiths Creek spit are minor, and effects on water levels, the wider inner harbour, Mair Bank, the ebb tide delta and open coast shoreline are nil to negligible.

The proposal is not expected to materially alter the stability or functioning of the Whangārei Harbour entrance, the lower harbour sediment system, Mair Bank, the open coast, or the harbour tidal regime. The most relevant local effects are the permanent occupation of the CMA, expected maintenance dredging requirements, and potential localised changes within the eastern part of Marsden Bay, including around the Blacksmiths Creek spit.

Subject to the proposed construction controls, certified dredging and environmental monitoring plans, and associated monitoring and response requirements, the actual and potential adverse effects of the proposal on coastal processes are assessed as

minor overall, except for the unavoidable permanent occupation of the reclamation footprint, which is a localised and unavoidable physical change arising from the nature of the proposal.

6.7 MARINE ECOLOGY

6.7.1 General

The marine ecological effects of the Project are assessed in the Marine Ecology Assessment at **Appendix 15**.

The Marine Ecology Assessment considers effects at three spatial scales: Marsden Bay, the One Tree Point to Marsden Bay Significant Ecological Area, and the outer harbour and entrance zone. Those scales enable the direct effects within the Project footprint to be considered in the context of the size and sensitivity of the relevant ecological systems, consistent with RPN Policy D.2.18(5).

6.7.2 Intertidal sediment habitats and macrofauna

The proposed reclamation and bird roost will permanently remove approximately 5.36 ha of intertidal habitat within Marsden Bay, including approximately 3.36 ha within the One Tree Point to Marsden Bay SEA. Dredging of the pocket berth will also convert approximately 0.2 ha of intertidal habitat to subtidal habitat.

The affected intertidal habitat has high ecological value. It supports a diverse benthic macrofaunal community, cockles, part of a juvenile pipi bed, areas of high biological activity, and small areas of seagrass and mangroves. The juvenile pipi bed is a particularly important feature, as it is one of the higher density pipi areas identified within Marsden Bay and straddles the eastern boundary of the SEA and the proposed reclamation / bird roost footprint.

The marine ecology assessment concludes that the proposal will result in a high magnitude of effect on pipi, moderate effects on mid-low tide areas displaying high ecological activity, low effects on seagrass and other intertidal values, and negligible effects on mangroves. Overall, effects on intertidal sediment habitats and macrofauna are assessed as high to very high.

6.7.3 Subtidal habitat and benthic communities

The proposed reclamation will permanently remove approximately 4.6 ha of shallow subtidal habitat within Marsden Bay, including approximately 0.57 ha within the One Tree Point to Marsden Bay SEA. The affected subtidal environment is of high ecological value and includes sand and shell-gravel substrates, macroalgae meadows, red algae, sponges, starfish, hydroids, bryozoans, ascidians and other sessile organisms. These habitats support diverse benthic communities and provide substrate, food, shelter and refuge for invertebrates and fish.

When the effects of the reclamation and the formation of the pocket berth are considered together, the Marine Ecology Assessment identifies approximately 5.5 ha, or 6% of the subtidal habitat within Marsden Bay, as being permanently lost or significantly degraded. This includes approximately 0.57 ha within the SEA.

Dredging will remove surface substrates, epibiota and infauna within the dredged areas. Recolonisation will occur, but the rate and character of that recolonisation will depend on the substrate exposed and the physical conditions within the dredged basin. Recovery of coarse sandy, gravelly and shell-based communities may take several years, and areas subject to maintenance dredging are unlikely to recover fully between dredging events.

The dredging will also alter conditions within the basin. Reduced current speeds, reduced light and the potential loss of shell-gravel substrate are expected to prolong recovery and result in recolonising communities with lower abundance, diversity and productivity than the communities presently occurring. The pocket berth will form a comparatively quiescent and shaded environment in which fine sediment and contaminants may accumulate and seabed macroalgae will be restricted.

Suspended sediment and deposition will also affect benthic habitats outside the dredging footprint. The scale of those effects will depend materially on the dredging method. Backhoe and cutter-suction dredging are predicted to produce comparatively localised effects, while use of a trailing suction hopper dredger may produce larger and more extensive plumes and deposition within the subtidal channel.

Off-site plume effects will be managed through dredging method selection, real-time turbidity monitoring, response triggers and management actions. Those temporary effects will cease after dredging, and affected ecological values are expected to recover more rapidly than the benthic communities within the dredged basin.

Overall effects on subtidal sediment habitats and benthic communities are assessed as high at the Marsden Bay scale and moderate at the One Tree Point to Marsden Bay SEA scale, resulting in an overall high to very high level of effect.

6.7.4 Reef habitat

The existing Northport revetment provides artificial rocky reef habitat. The proposal will remove approximately 509 m of existing rock revetment and create approximately 617 m of new rock revetment. Biota that cannot move from the existing revetment will be lost during reclamation. However, the new revetment and piles associated with the suspended deck and berth pocket will provide new hard substrate habitat for colonisation.

The marine ecology assessment concludes that effects on reef habitat will be low in the short term and positive in the medium to long term, as more revetment habitat will be created than is lost and recolonisation by similar reef assemblages is expected.

6.7.5 Fish

The affected intertidal and subtidal habitats provide feeding and nursery functions for fish, including ray feeding areas and subtidal habitats used by reef-associated and soft-sediment fish species. However, the fish species likely to be affected are mobile, widespread, and not Threatened or At Risk. The proposal will result in the permanent loss of fish habitat within the reclamation footprint and temporary disturbance associated with dredging, but fish are expected to be able to move to other areas.

The marine ecology assessment concludes that effects on fish are low at all assessed scales.

6.7.6 Chemical stressors and toxicants

Shipyards activities have the potential to introduce chemical stressors and toxicants through standard stormwater, vessel maintenance and repair activities, storage and use of fuels, oils, solvents and coatings, and airborne deposition.

High risk vessel maintenance areas will be hydraulically separated from standard stormwater areas. Operational washwater and process runoff from those areas will be captured and diverted to trade waste or another authorised disposal pathway. Standard stormwater from roofs, roads, accessways and low-risk hardstand areas will be pre-treated before entering the Northport canal and pond system.

The proposed system is intended to ensure that high risk operational washwater and process runoff are not discharged to the Northport stormwater system or directly to the CMA. Standard stormwater quality is expected to be similar to or better than runoff from the existing Northport facility because the Project will include pre-treatment and will not involve log storage.

Some airborne particulates or contaminants may deposit within the CMA. Those discharges will be managed through the AQMP, including method selection, coating specific controls, physical screening, encapsulation where required, extraction and filtration, meteorological and particulate monitoring, and trigger-based responses.

Subject to the proposed separation, treatment, monitoring and response framework, contaminant discharges from the Project are not expected to cause adverse marine ecological effects.

6.7.7 Cumulative marine ecological effects

The marine ecology assessment also considers cumulative effects associated with the proposal in combination with consented but unimplemented coastal works, including Northport's consented reclamation and dredging and CINZ's consented dredging. If all relevant consented activities were implemented, approximately 2.1% of the total intertidal area and 5.9% of the total subtidal area of the outer harbour and entrance zone will be directly affected by dredging or reclamation.

The cumulative effects on intertidal sediment habitat and macrofauna are assessed as high to very high. The cumulative effects on subtidal sediment habitat and benthic communities are assessed as high within the One Tree Point to Marsden Bay SEA and high to very high within Marsden Bay and the outer harbour and entrance zone.

Those effects reflect the combined permanent loss, dredging and modification of high value intertidal and subtidal habitat, together with indirect effects from sediment plumes and deposition.

The cumulative effects on intertidal habitat are assessed as high to very high, primarily because of the permanent loss of intertidal habitat and associated ecological values. The cumulative effects on subtidal sediment habitats and benthic communities are assessed as high at the SEA scale and high to very high at the Marsden Bay and outer harbour scales. Those effects reflect the combined permanent loss, disturbance and modification of high value subtidal habitats.

6.7.8 Measures to manage effects

The principal adverse effects on marine ecology arise from the permanent loss of habitat within the reclamation footprint. Those effects cannot be fully avoided or remedied while still providing the functional reclamation, berth pocket, wharf and operational areas required for the project. However, conditions are proposed to reduce the level of effect where practicable, including requirements for:

- (a) Selection and implementation of dredging methods that minimise sediment suspension and dispersal;
- (b) Real-time turbidity monitoring and response triggers during dredging;
- (c) Pre-, during- and post-dredging marine ecology assurance monitoring in accordance with the certified EMMP;
- (d) Construction methodologies that confine works to the authorised footprint;
- (e) Stormwater source control, treatment, discharge standards and monitoring;
- (f) Post-dredging monitoring of seabed characteristics and benthic recolonisation, including whether the dredged areas are following the recovery trajectory anticipated by the Marine Ecology Assessment; and

- (g) Consideration of shell or shell-gravel placement where monitoring confirms that suitable hard substrate is absent and the relevant technical experts confirm that placement is practicable and ecologically appropriate.

These measures will reduce, monitor or respond to effects where practicable, but will not fully remedy permanent habitat loss or ensure that the recolonising benthic community is equivalent to the community present before dredging.

Overall, the proposal will result in residual adverse effects on some marine ecological values, particularly intertidal and subtidal benthic habitats and associated macrofauna. Those residual effects are contextualised by the project's functional and operational need to locate in the CMA, its integration with existing and consented port and marine industrial infrastructure, the limited practicable alternatives available for a facility of this nature, and should be considered against the significant regional and national benefits of the project.

6.8 AVIFAUNA

6.8.1 Introduction

The effects of the Project on avifauna are assessed in the Avifauna Assessment at **Appendix 16**. This section summarises the findings of that assessment.

As described earlier, the receiving environment is heavily modified. The site is located immediately adjacent to an established port and industrial area characterised by ongoing vessel traffic, reclamation, lighting and human activity. However, the environment nevertheless supports important ecological values, including avifauna, and is subject to recognised ecological overlays such as SEAs SBAs and SMMSBs in the wider locality.

6.8.2 Existing avifauna values

Ecological investigations undertaken for the Project confirm that the wider Marsden Bay and Northport coastal environment supports a range of coastal and marine bird species, including nationally At Risk and Threatened species. These include:

- Coastal and shorebird species such as variable oystercatcher and New Zealand dotterel, which have been recorded breeding within and adjacent to the Northport site.
- Red-billed gull, present in large numbers along parts of the coastline to the east of Northport.
- Other species recorded in the wider area in lower numbers, including reef heron, white-faced heron and royal spoonbill.

The existing Northport footprint and associated structures already provide modified habitats that are used opportunistically by some species for nesting and roosting (e.g. revetments, stockpiles and hardstand areas).

The site and surrounding coastal environment also provide foraging habitat, with benthic communities supporting prey species for shorebirds.

Overall, the Project footprint and surrounding coastal environment support a range of coastal avifauna, including species of High and Very High ecological value. Significant avifauna habitats occur within the wider Marsden Bay and Blacksmiths Creek environment, although the Project footprint itself generally supports lower levels of bird use than some surrounding areas.

The Avifauna Assessment also addresses cryptic marshbirds associated with Blacksmiths Creek, including the Significant Bird Area – Critical Bird Habitat for Australasian bittern. While these species are not expected to be directly affected by reclamation works, construction related disturbance is managed through survey, exclusion and response procedures where breeding activity is identified.

6.8.3 Construction effects

Construction activities have the potential to result in both direct and indirect effects on avifauna.

Habitat modification and disturbance

Reclamation, dredging and associated coastal works will result in the permanent loss or modification of intertidal and coastal habitat used by birds for foraging and

roosting. However, this effect must be balanced against the existing highly modified port environment, where similar habitats have already been altered.

Disturbance of roosting and nesting birds

Construction activities have the potential to disturb birds through noise, vibration, lighting and the presence of machinery and personnel. This is particularly relevant during the breeding season where disturbance could result in nest abandonment or reduced breeding success. Observations of breeding activity within the existing Northport footprint (including dotterel and oystercatcher) indicate that some species are tolerant of a modified and active environment, although sensitivity will vary by species and seasonal context.

Mortality risk

There is potential for direct mortality or injury to birds, particularly if nesting individuals are present within construction areas. This risk is considered low but requires active management given the presence of threatened species.

Kororā (little blue penguin)

Although no confirmed nesting has been identified within the immediate works footprint, the presence of suitable habitat within rock revetments and indications of possible use mean that a precautionary approach to potential kororā presence is warranted.

Overall, without mitigation, construction effects could be moderate in magnitude at a local scale, particularly in relation to disturbance of breeding shorebirds.

6.8.4 Operational effects

Operational activities are anticipated to give rise to ongoing disturbance effects, including:

- Increased human activity within the site;
- Vessel movements and associated noise; and
- Artificial lighting associated with night-time operations.

However, these effects will occur within an environment that already supports ongoing port operations. Many species present are demonstrably tolerant of this

modified environment. As a result, operational effects are expected to be low to moderate and largely confined to behavioural disturbance rather than habitat loss.

Artificial lighting has the potential to affect seabirds and nocturnal species. This effect will require careful management to avoid disorientation or attraction, particularly for species such as kororā.

6.8.5 Avoidance, remedy and mitigation measures

The Project incorporates a range of measures to avoid, remedy or mitigate adverse effects on avifauna, including:

- Implementation of a Project specific AMP to guide pre-construction surveys, monitoring and management;
- Seasonal restrictions or monitoring and response measures where nesting shorebirds are identified;
- Establishment of exclusion zones around active nests where practicable;
- Protocols for managing incidental discovery of nesting birds during works;
- Measures to minimise lighting spill and manage artificial lighting effects; and
- Specific management measures for kororā, including pre-construction checks and monitoring of rock habitats.

These measures are consistent with the management framework outlined in the draft AMP prepared for the Project.

To the extent that kororā management is addressed in both the AMP and the KMP, the KMP is the primary operative document for kororā-specific survey, handling, relocation, exclusion, reporting and Wildlife Act approval requirements.

6.8.6 Residual effects and overall conclusion

With the implementation of the proposed mitigation measures and management plans, residual adverse effects on avifauna are expected to be reduced to a low to moderate level. In particular:

- Effects on breeding shorebirds can be effectively managed through pre-construction surveys and monitoring and response measures;

- Disturbance effects will be largely limited to behavioural responses within an already modified environment; and
- Risks to threatened species can be appropriately managed through targeted mitigation and monitoring.

Overall, the Project will result in adverse effects on avifauna, including a moderate residual adverse effect on northern New Zealand dotterel arising principally from the permanent loss of foraging habitat within the reclamation footprint and temporary construction related disturbance and displacement.

Those effects will be addressed through the proposed avoidance, mitigation, monitoring, predator control and habitat management measures secured through the proposed conditions and implemented through the AMP. As addressed in Section 7.4, the residual effect has not been identified as a significant adverse effect for the purposes of clause 3.16(1) of the National Policy Statement for Indigenous Biodiversity 2023 (NPS-IB) and does not require biodiversity offsetting or compensation.

6.9 KORORĀ / WILDLIFE ACT EFFECTS

6.9.1 Introduction

The effects of the Project on kororā / little blue penguin are assessed having regard to the Avifauna Assessment at **Appendix 16** and the KMP at **Appendix 9D**.

Kororā are protected wildlife under the Wildlife Act 1953. A Wildlife Act approval is therefore sought to authorise any survey, handling, temporary holding, relocation or associated management of kororā or other protected wildlife that may otherwise require authorisation under that Act.

6.9.2 Existing kororā values

Kororā are known to use Northland coastal and harbour environments, including rocky shorelines, revetments, seawalls, coastal structures, natural cavities and modified coastal margins where suitable shelter or nesting habitat is available. Within the Project footprint, the western Northport rock revetment is the relevant potential habitat feature.

Three surveys of the western revetment have not identified kororā or signs of kororā use. However, kororā breed on nearby islands and may use artificial revetment habitat within the wider harbour. The Project therefore adopts a precautionary management approach based on pre-construction survey, exclusion, relocation where authorised and appropriate, monitoring and reporting.

6.9.3 Potential construction effects

Construction effects on kororā may arise if birds are present within or near areas affected by reclamation, revetment works, rock placement, demolition or modification of existing structures, construction of new coastal edge structures, lighting, noise, vibration, vehicle movements or human activity.

Potential construction effects include:

- (a) Disturbance of birds occupying existing rock revetments or other coastal edge habitat;
- (b) Temporary displacement from roosting or nesting habitat;
- (c) injury or mortality if birds are present within rock voids or other shelter areas during works;
- (d) Loss or modification of potential habitat within the existing coastal edge;
- (e) Disruption to access between the sea and any occupied terrestrial or revetment habitat; and
- (f) Lighting or activity effects that may affect movement between the CMA and roosting or nesting habitat.

The highest risk construction activities are those involving disturbance, removal, modification or placement of rock revetment material or other coastal edge structures that may contain voids suitable for kororā. Those activities will require specific pre-work checks and management procedures.

6.9.4 Potential operational effects

Operational effects on kororā may arise from the long-term presence and operation of the shipyard and drydock facility, including lighting, noise, vessel activity, vehicle movements, public access arrangements, maintenance of revetments and other coastal edge structures, and ongoing human activity.

The Project will be located in an already modified and active maritime industrial environment. However, operational activities may still affect kororā if birds use existing or newly created rock revetment habitat near the facility.

Potential operational effects include:

- (a) Disturbance from lighting, noise and human activity;
- (b) Disruption of movement between the CMA and roosting or nesting habitat;
- (c) Injury risk during maintenance of rock revetments or coastal edge structures;
- (d) Reduced habitat suitability in areas subject to regular disturbance; and
- (e) Increased risk of interaction with public access or operational areas if habitat is not appropriately managed.

These effects will be managed through the KMP, lighting controls, operational procedures, monitoring requirements and conditions of consent.

6.9.5 Avoidance, mitigation and management

The Project will manage effects on kororā through a precautionary approach based on survey, avoidance, exclusion, relocation where authorised, habitat management, monitoring and reporting.

The proposed management measures include:

- (a) Pre-construction surveys of existing rock revetments and other suitable habitat within the works area;
- (b) Checks by a suitably qualified and experienced person before any works that may disturb potential kororā habitat;
- (c) Exclusion zones or temporary protection measures where kororā are identified and can practicably be avoided;
- (d) Procedures for managing active nests, moulting birds or birds otherwise vulnerable to disturbance;
- (e) Handling, temporary holding and relocation procedures where avoidance is not practicable and where authorised by the Wildlife Act approval;
- (f) Timing controls or staged works where necessary to reduce risk to birds;
- (g) Construction personnel induction and training so that workers can recognise potential kororā presence and understand stop-work procedures;

- (h) Stop work and incident response procedures if kororā are discovered unexpectedly;
- (i) Management of lighting to reduce unnecessary light spill toward potential kororā habitat and movement paths;
- (j) Management of potential kororā habitat affected by works, including reinstatement or other habitat measures where required by the Wildlife Act approval, KMP or conditions.
- (k) Monitoring and reporting to confirm the effectiveness of management measures.
- (l) Pre-work survey by a DOC-certified conservation dog and handler in conjunction with a SQE before rock removal within mapped potential kororā habitat;
- (m) 10 m exclusion zone around any active burrow; and a prohibition on handling or relocating breeding or moulting birds for the purpose of enabling construction works.

These measures will be implemented through the KMP, the Wildlife Act approval conditions and the relevant resource consent conditions.

6.9.6 Wildlife Act approval

A Wildlife Act approval is sought as part of the FTAA approvals package to authorise the kororā management actions required if kororā are encountered within the works area. The approval relates to survey, inspection, monitoring, handling, temporary holding, transport, release and relocation of non-breeding and non-moulting kororā, in accordance with the KMP and proposed Wildlife Act approval conditions.

The approval provides the statutory authority for controlled, expert-led kororā management where pre-construction surveys or construction monitoring identify a need for active management. The management response prioritises avoidance of injury or mortality and maintains exclusion and protection requirements where active breeding or moulting is identified.

The detailed scope of the approval, authorised persons, management procedures, reporting requirements and proposed conditions are set out in the Wildlife Act approval application and proposed Wildlife Act conditions.

6.9.7 Residual effects and conclusion

The Project has the potential to affect kororā if birds are present within existing or proposed rock revetment habitat or other coastal edge structures affected by construction or operation. The key risks relate to disturbance, injury or mortality during works affecting potential habitat, and longer term disturbance or habitat modification associated with the operation of the facility.

Confirmed active nesting within the immediate works footprint has not been identified on the basis of the information currently available. However, suitable habitat is present, and the Project therefore adopts a precautionary approach.

Subject to the proposed pre-construction surveys, avoidance procedures, expert supervision, Wildlife Act approval, KMP, lighting controls, habitat management, monitoring and reporting, residual effects on kororā are expected to be low.

The proposed management framework is appropriate because it recognises the protected status of kororā, provides a clear process for avoiding effects where practicable, and ensures that any necessary handling or relocation is undertaken only by authorised and suitably qualified persons in accordance with the Wildlife Act approval and certified management plan.

6.10 MARINE MAMMALS AND UNDERWATER NOISE

6.10.1 General

The effects of the Project on marine mammals are assessed in the Marine Mammal Assessment at **Appendix 17** and the Underwater Noise Assessment at **Appendix 18**.

The assessment primarily addresses construction related underwater noise effects, but also considers vessel strike, possible entanglement, habitat / prey related effects and cumulative effects relevant to construction and operation. The assessment identifies the marine mammal species that may occur in Whangārei Harbour, Bream

Bay and the wider area, and assesses the potential effects of the project on those species.

The principal potential effect on marine mammals is underwater noise generated during construction, particularly from impact piling. Marine mammals rely on underwater sound for communication, orientation, predator avoidance and foraging. Increased underwater noise can result in a range of responses, including behavioural responses, acoustic masking, temporary threshold shift, permanent threshold shift, and avoidance or displacement from affected areas.

6.10.2 Relevant species

The species most likely to be affected by the project are bottlenose dolphins, common dolphins, orca and Bryde's whales. Other species that may occur less frequently or seasonally include New Zealand fur seals, leopard seals, southern right whales and humpback whales. Several of these species are threatened or at risk, or are otherwise relevant to Policy 11 of the NZCPS.

The Marine Mammal Assessment concludes that Whangārei Harbour and Bream Bay are used by marine mammals, but that the Project area is not unique or irreplaceable feeding, breeding, resting or nursery habitat. The harbour entrance and lower harbour form part of a broader coastal environment used by marine mammals moving along the north-eastern coastline. However, this does not remove the need to carefully assess construction related underwater noise, particularly given the potential for some threatened or at-risk species to be present.

6.10.3 Construction noise

General construction activities associated with reclamation, seawalls, dredging, vessel movements and placement of rock and fill material will generate underwater noise. Those activities are expected to generate lower underwater noise levels than impact piling. General construction noise may result in localised behavioural responses or temporary avoidance of the immediate construction area but is not expected to result in hearing injury to marine mammals.

Dredging noise is expected to be substantially lower risk than impact piling and is not predicted to cause permanent or temporary hearing injury. It may result in

localised behavioural or masking effects near active dredging plant, and will be managed through the MMMP, including a Dredging Marine Mammal Observation Zone (DMMOZ), sighting procedures and reporting.

6.10.4 Pile driving noise

Impact piling is the dominant underwater noise source for the Project. The underwater noise assessment modelled the largest proposed pile types and identified that, without management, impact piling has the potential to generate sound levels capable of causing TTS or PTS in marine mammals at distances that vary by hearing group and species. The greatest unmitigated TTS distances are predicted for baleen whales and pinnipeds, with smaller PTS distances closer to the piling source. These results confirm that active management is required to avoid acoustic injury and minimise behavioural disturbance during piling.

The proposed conditions require underwater noise to be managed to specified limits to avoid those effects. This will be achieved through a combination of method selection, best practicable option requirements, soft-start and ramp-up procedures, marine mammal observation, shut-down zones, acoustic validation monitoring, and adaptive adjustment of management measures where required by the consent conditions.

With those measures in place, the project is expected to avoid permanent threshold shift and temporary threshold shift effects on marine mammals.

6.10.5 Behavioural disturbance and habitat exclusion

Even where hearing injury is avoided, underwater noise from impact piling can still result in behavioural disturbance. Behavioural responses may include changes in swimming direction or speed, changes in surfacing or vocalisation behaviour, cessation of feeding or communication, avoidance of affected waters, or temporary displacement from parts of the harbour.

For this project, the principal residual effect is therefore not expected to be physical injury, but temporary habitat exclusion. During piling periods, some marine mammals may choose not to enter Whangārei Harbour, or may leave or avoid parts of the lower harbour and harbour entrance. That effect is temporary and

construction related, but it is also a material adverse effect because it may reduce the ability of marine mammals to use harbour habitat while piling is occurring.

The residual effect is characterised as a temporary construction related behavioural disturbance and habitat exclusion risk. It is subject to source reduction, acoustic validation, observation and shutdown controls.

6.10.6 Management and mitigation

The proposed conditions require the preparation and implementation of a MMMP. The purpose of the plan is to avoid acoustic injury to marine mammals and to minimise behavioural disturbance and habitat exclusion effects as far as practicable.

The MMMP will include procedures for:

- (a) Selecting and implementing the best practicable option to minimise underwater noise at source;
- (b) Using vibro-driving in preference to impact piling where practicable;
- (c) Soft-start and ramp-up procedures;
- (d) Marine mammal observation by trained MMOs, including pre-start observations;
- (e) Implementation of the Project area Marine Mammal Observation Zone (MMOZ), Extended Marine Mammal Observation Zone (EMMOZ), Outer Channel Marine Mammal Observation Zone (OCMMOZ) and Upper Harbour Marine Mammal Observation Zone (UHMMOZ), including the applicable pre-start observation, monitoring, shutdown, delay and recommencement procedures;
- (f) DMMOZ procedures for dredging;
- (g) Acoustic validation of actual piling sound levels and review of management zones;
- (h) A network of real-time underwater acoustic monitoring stations operating throughout the construction period and for six months following completion of piling, to supplement visual observations, assist with marine mammal detection, validate actual underwater noise levels and noise reduction performance, review the appropriateness of the observation zones and inform post-construction review;

- (i) Liaison with DOC, relevant marina operators and tangata whenua representatives regarding sightings;
- (j) Vessel strike and entanglement risk controls; and
- (k) Reporting, incident response and review of management actions.

The conditions also require the consent holder to use the best practicable option to minimise underwater noise at source. This may include use of vibro-driving where practicable, non-metallic hammer cushions, modified hammer energy or contact time, pile sequencing, equipment maintenance, and other available noise reduction technologies that are practicable and effective in the local hydrodynamic conditions.

Subject to implementation of the MMMP, including source noise reduction, acoustic validation, marine mammal observation, shutdown procedures and real-time underwater acoustic monitoring, permanent and temporary hearing injury effects are expected to be avoided. Residual effects are expected to comprise short-term, non-injurious behavioural disturbance, temporary avoidance of affected parts of the harbour, and potential temporary masking during piling periods.

6.10.7 Vessel strike and entanglement

The project will involve construction vessels and, once operational, vessel movements associated with the shipyard and drydock. The risk of vessel strike is expected to be low, but is relevant given the conservation status of some marine mammal species. The proposed conditions require appropriate vessel management procedures, including adherence to marine mammal boating guidance, vessel speed and watchkeeping requirements where relevant, and reporting of any strike or near-strike event.

The risk of entanglement from construction materials, ropes, lines, nets, silt curtains or other debris will be managed through good housekeeping, waste management, inspection and maintenance procedures, and incident reporting. With those measures, entanglement risk is expected to be low.

The MMMP will also address vessel strike and entanglement risk by requiring project related vessels to follow best practice boating behaviour around marine mammals,

maintaining records of any vessel strike or near-strike incidents, keeping ropes / nets taut or secured when not in use, inspecting sediment containment gear, and implementing waste management procedures for support vessels and project activities.

6.10.8 Conclusion

The Project has the potential to adversely affect marine mammals, principally through underwater noise from impact piling. The proposed conditions will avoid hearing injury by requiring underwater noise to be minimised at source, monitored, validated and managed through marine mammal observation and shutdown procedures. Residual effects are expected to relate primarily to temporary behavioural disturbance, masking and avoidance of parts of the harbour during piling. Those effects are temporary, construction related and subject to enforceable management, monitoring and response conditions.

6.11 STORMWATER, WASTEWATER, AND WATER QUALITY

6.11.1 Introduction

The effects of Project stormwater, washwater, wastewater and associated discharges are assessed in the Stormwater Assessment at **Appendix 21**.

The Project adopts a separated and risk-based approach to stormwater and operational runoff management. Standard stormwater runoff will be pre-treated before discharge to the extended Northport stormwater canal and pond system. High risk operational washwater and process runoff will be isolated from the stormwater system and directed to containment, treatment and the WDC wastewater network under trade waste approval, or another authorised disposal pathway. Domestic wastewater will also be directed to the WDC wastewater network.

An operational Stormwater Management Plan (SMP) will provide the framework for implementing these controls, including catchment management, pre-treatment, separation of stormwater and high risk operational runoff, internal monitoring, maintenance, spill and isolation procedures, and incident response. The SMP will be certified and implemented before the relevant operational discharges commence.

6.11.2 Standard stormwater effects

Standard operational stormwater will arise from roofs, roads, accessways, hardstand and other areas when high risk vessel maintenance activities are not occurring. All such runoff will be subject to pre-treatment appropriate to the relevant catchment and contaminant risk before discharge to the Northport stormwater canal and pond system. The final treatment devices, catchment configuration and monitoring arrangements will be confirmed through detailed design and the SMP.

The Stormwater Assessment assesses a total combined Northport and shipyard catchment of approximately 77.0 ha for water quality treatment purposes, with a corresponding water quality volume of approximately 21,200 m³. It concludes that the existing Northport pond has sufficient volumetric treatment capacity for that combined catchment.

Some adaptation of the existing collection and conveyance network will nevertheless be required. This includes extension of the perimeter canal system around the western side of the Project, modifications to connecting canals and spillway arrangements, and removal of local hydraulic constraints so that water quality storm flows continue to be conveyed to treatment.

No change to an existing Northport resource consent condition is sought through this application. Any separate consent holder approval, infrastructure agreement, condition variation or other authorisation required to connect to or use Northport's stormwater infrastructure will be addressed separately.

Subject to the proposed pre-treatment, conveyance works, SMP and conditions, standard stormwater effects on the harbour receiving environment are expected to be no more than minor.

6.11.3 High-risk operational run-off and trade waste

Runoff generated during vessel washing, water blasting, wet abrasive blasting, surface preparation and other higher risk maintenance activities may contain elevated concentrations of suspended solids, metals, antifouling contaminants, coating residues, hydrocarbons and other process contaminants. The Stormwater

Assessment identifies that these flows are not suitable for discharge to the Northport stormwater treatment system.

High risk operational areas will therefore be physically and operationally isolated from the stormwater system while those activities are occurring. Runoff will be captured and directed to containment, buffering and treatment before discharge to the WDC wastewater network under trade waste approval, or to another appropriately authorised treatment or disposal facility. Shut-off or diversion controls will prevent high risk operational runoff entering the stormwater canal system.

When high risk operational activities are not occurring and the relevant catchment has been appropriately cleaned down, rainfall runoff may be redirected to the stormwater system following the required pre-treatment. The SMP will set out the procedures for diversion, clean down, verification, monitoring, maintenance and incident response.

Buffering will enable discharge rates to be managed having regard to the capacity of the WDC wastewater network and will also provide for sampling and contaminant specific treatment where required. The final connection, discharge rate, storage requirements and trade waste conditions will be confirmed with WDC before the relevant operations commence.

Domestic wastewater from workforce amenities and ablution facilities will also be discharged to the WDC wastewater network.

Subject to these controls, operational washwater, process runoff and wastewater effects are expected to be appropriately managed.

6.11.4 Overall conclusion

The Project adopts a separated and risk based approach to stormwater and operational runoff. Standard stormwater will be pre-treated and conveyed to the Northport stormwater system, while high risk operational runoff will be isolated and directed to trade waste or another authorised disposal pathway.

The Stormwater Assessment confirms that the Northport pond has sufficient treatment and volumetric capacity for the combined catchment, subject to the

required pre-treatment and conveyance adaptations. The detailed operation, monitoring and maintenance of the Project stormwater and runoff systems will be implemented through the SMP and proposed conditions.

On that basis, stormwater, operational runoff, wastewater and associated water quality effects can be appropriately managed.

6.12 AIR QUALITY AND OPERATIONAL DISCHARGE EFFECTS

6.12.1 Introduction

The air quality effects of the construction and operation of the Project are assessed in the Air Quality Assessment at **Appendix 22**.

The air quality assessment addresses:

- (a) Dust from reclamation and construction of the shipyard and drydock facility;
- (b) Dust from construction of the carpark and access road;
- (c) Particulate matter from vessel surface preparation;
- (d) Paint overspray and coating related particulate matter;
- (e) Volatile organic compounds and odour from coating activities;
- (f) Hazardous contaminants associated with some coating products;
- (g) Combustion emissions from auxiliary plant and vehicles;
- (h) Cumulative air quality effects with existing and consented port activities;
- (i) Human health effects; and
- (j) Potential deposition of particulates, overspray or coating contaminants to the CMA.

6.12.2 Construction dust effects

Construction of the Project will involve site establishment, clearance, reclamation containment works, dredging and reclamation, construction of wharf and jetty structures, installation of drydock or ship lift infrastructure, construction of the carpark and access road, and installation of pavements, utilities, services and buildings.

The principal construction air quality effect is nuisance dust. Dust may be generated by site clearance, bulk earthworks, placement and trimming of dried reclamation fill,

formation of rock revetments, vehicle movements on unsealed or partially sealed surfaces, material stockpiles and exposed working faces. Construction dust effects associated with reclamation, hardstand construction, access road construction and carpark construction will be managed through the construction air quality and dust control provisions of the certified CEMP, including visual monitoring, real-time TSP monitoring, wind monitoring and trigger-based response procedures.

The Air Quality Assessment identifies that, without mitigation, construction dust effects could potentially occur within approximately 400 m of active dust sources under dry and windy conditions. With mitigation in place, the assessment considers that the distance within which dust effects may occur is likely to reduce significantly, generally to within approximately 50 m of the source.

The nearest residential receptors are located approximately 375 m or more from the proposed facility. Accordingly, construction dust effects at residential receptors are expected to be low, provided the recommended mitigation and monitoring measures are implemented. Closer receptors, including the Blacksmith Creek Walkway, the beach west of the site, the CMA and Northport, have greater potential to experience short-term dust effects during particular wind conditions. Those effects will be managed through dust suppression, surface stabilisation, control of exposed areas, vehicle speed limits, sweeping, water application, real-time particulate monitoring, visual monitoring and trigger-based response procedures.

Construction of the carpark and access road has also been considered in the Air Quality Assessment. The receiving environment for those works is primarily industrial, with the Blacksmith Creek Walkway being the main moderate sensitivity receptor. The assessment concludes that there is a low potential for offensive or objectionable dust effects from construction of the carpark and access road, subject to the proposed controls.

Construction dust effects will be managed through the dust and construction air quality provisions of the certified CEMP, including source controls, visual inspections, meteorological monitoring, complaints procedures and modification or cessation of dust generating activities where required.

6.12.3 Operational surface preparation effects

Operational vessel maintenance activities will include surface preparation by high-pressure water blasting, ultra-high-pressure water jetting, wet abrasive blasting using garnet, and, in rare circumstances, dry abrasive blasting.

High-pressure water blasting, ultra-high-pressure water jetting and wet abrasive blasting will be the primary surface preparation methods. These methods substantially reduce the potential for airborne dust because removed material is entrained in water droplets or wet media and generally deposits close to the work area. Dry abrasive blasting will only occur in rare circumstances and will be encapsulated.

Potential air discharges from surface preparation include spent abrasive media, removed paint and coating material, corrosion products, marine biofouling and fine particulate matter. These materials have the potential to give rise to nuisance dust, human health effects if fine particulate matter is generated, and ecological effects if contaminated particulates are deposited to the CMA.

The Project will manage these effects through the use of water-based and wet surface preparation methods where practicable, encapsulation of dry abrasive blasting, use of garnet or another approved abrasive medium, wind and visual monitoring, real-time TSP monitoring, and trigger-based management responses. Detailed operational methods will be specified in the certified AQMP.

Where coating history review or testing identifies lead, mercury or tributyltin, the coating will be removed using vacuum blasting with filtration, or another method providing an equivalent or better level of containment, capture and filtration.

Subject to these controls, operational air quality effects from surface preparation are expected to be low.

6.12.4 Surface coating, overspray and contaminants

Surface coating has the greatest potential to generate operational air quality effects. Potential effects include paint overspray, particulate matter, volatile organic

compounds, odour and hazardous contaminants associated with some coating products.

The Air Quality Assessment included atmospheric dispersion modelling based on unencapsulated spray coating as a conservative assessment scenario. The modelling assumed three spray sources operating simultaneously at 20 litres per hour each, giving a cumulative application rate of 60 litres per hour, together with conservative assumptions concerning operating duration and coating composition.

The modelling identified that spray application of some coatings without additional controls could result in short-term concentrations above the applicable health based assessment criteria. The relevant compounds include copper oxide, copper(I) oxide, pyrrhione zinc, crystalline silica-quartz, titanium dioxide, zinc oxide and hexamethylene diisocyanate monomer.

Coatings containing copper oxide, copper(I) oxide, pyrrhione zinc, crystalline silica-quartz, titanium dioxide or zinc oxide will either be applied by brush or roller or spray applied within encapsulation, with extracted air appropriately treated before discharge.

Spray application of coatings containing hexamethylene diisocyanate monomer will be undertaken within encapsulation using mechanical extraction and two-stage filtration, or an alternative treatment system providing an equivalent or better level of contaminant control.

Other spray coating may occur without encapsulation, subject to the certified AQMP. The applicable controls will include wind and visual monitoring, appropriate spray settings and methods, physical screening, application rate controls, use of brush or roller application where appropriate, and modification, encapsulation or cessation of the activity where required.

Subject to those controls, the Air Quality Assessment concludes that there will be a low risk of adverse human health effects and a low potential for nuisance and amenity effects from surface coating.

6.12.5 Odour effects

Odour effects may arise from solvent-based coating activities, particularly where spray painting occurs. The Air Quality Assessment considered odour using a FIDOL methodology, having regard to the frequency of wind conditions, intensity of odour, duration of potential exposure, offensiveness of paint odours and location of receptors.

The nearest residential receptors are separated from the proposed coating activities by at least approximately 375 m. The assessment concludes that the frequency of exposure at residential receptors is low and that the intensity of odour at those receptors is also expected to be low. Closer receptors, including public recreation areas, the harbour and Northport, may have greater potential to experience intermittent odour effects, although those receptors are either temporary / intermittent public use areas or low-sensitivity industrial receptors.

Odour effects will be managed through wind monitoring, regular odour observations, selection of lower-risk application methods where practicable, reduction or modification of coating application rates and, where required, encapsulation or cessation. Where coating activities cause persistent offensive or objectionable odour beyond the Facility, the activity causing the odour will cease until conditions change or effective additional mitigation is implemented. Subject to those controls, odour effects are expected to be low and are not expected to be offensive or objectionable beyond the site.

6.12.6 Human health effects

The Air Quality Assessment has considered the risk of adverse human health effects associated with particulate matter and coating related contaminants. Background PM₁₀ concentrations are generally low, and the assessment's short-term site monitoring supports that conclusion.

Construction and reclamation activities are expected to generate predominantly larger dust particles, with a low proportion of fine particulate matter. Operational surface preparation activities will primarily use water-based or wet methods, with dry abrasive blasting encapsulated. Spray coating health risks will be managed

through coating specific application restrictions, wind and visual monitoring, application controls and encapsulation, extraction and filtration where required.

With those controls in place, the assessment considers there is no credible pathway for the Project to result in sustained or elevated PM10 or PM2.5 concentrations at off-site sensitive receptors. The risk of adverse human health effects associated with particulate matter is therefore negligible. Health risks associated with coating contaminants will be managed through the specific restrictions applying to identified compounds, encapsulation and filtration where required, operational monitoring, trigger-based responses and compliance with the certified AQMP.

6.12.7 Effects on the CMA

The Project has been specifically assessed in relation to potential deposition of dust, paint overspray, blasting residue, coating particles or contaminated particulate matter to the CMA.

Construction dust will be managed through standard good practice dust controls, visual monitoring, real-time TSP monitoring and trigger-based response procedures. Surface preparation will primarily use high-pressure water blasting, ultra-high-pressure water jetting and wet abrasive blasting, which substantially reduce airborne dispersion. Dry abrasive blasting will be encapsulated.

Spray coating will be managed to avoid uncontrolled deposition of overspray and coating contaminants to the CMA. Controls will include wind and visual monitoring, appropriate spray methods and settings, physical screening, use of brush or roller application where appropriate, coating-specific encapsulation and filtration requirements, and modification, encapsulation or cessation where initial controls are not adequately containing overspray or particulate deposition.

The potential ecotoxicological effects of contaminants deposited to the coastal marine area from operational air discharges are assessed in the Ecotoxicity Assessment at **Appendix 28**.

Some deposition of airborne particulates or contaminants to the CMA may occur during operational activities. However, subject to the proposed coating specific controls, physical screening, encapsulation where required, extraction and filtration,

meteorological and particulate monitoring, and trigger-based responses, adverse ecological effects on the CMA are not expected.

6.12.8 Cumulative effects

The Air Quality Assessment has considered cumulative air quality effects with existing port operations and the consented eastern Northport expansion.

Cumulative construction dust effects will only occur if the Project and nearby port activities were generating dust within relevant separation distances at the same time and under wind conditions capable of transporting dust toward the same receptor. The Air Quality Assessment considers that the likelihood of cumulative dust effects at residential receptors is low. Potential cumulative effects at closer public recreation and industrial receptors will be managed through the proposed mitigation and monitoring framework.

Operational cumulative effects are also expected to be low. Existing port operations do not include volatile organic compound sources comparable to vessel spray painting, and air discharges from shipyard operations will be managed through method selection, coating specific restrictions, physical screening and encapsulation where required, wind and particulate monitoring and trigger-based management responses.

6.12.9 Mitigation, monitoring and management

Construction air quality effects will be managed through the dust and construction air quality provisions of the certified CEMP.

Operational air quality effects will be managed through a certified AQMP prepared in general accordance with the Air Quality Management Plan at **Appendix 9F**. The AQMP will address:

- (a) Operational air-discharge sources;
- (b) Surface preparation methods and controls;
- (c) Dry abrasive blasting encapsulation;
- (d) Spray, brush and roller coating;

- (e) Coating-specific application restrictions;
- (f) Physical screening, encapsulation, extraction and filtration;
- (g) Contaminated coating identification and removal;
- (h) Management of surface preparation residues;
- (i) Welding, grinding, cutting and other metal working activities;
- (j) Wind monitoring;
- (k) Visual dust and overspray monitoring;
- (l) Real-time TSP monitoring and trigger responses;
- (m) Odour monitoring and response;
- (n) Activity modification, reduction, encapsulation or cessation where required;
- (o) Complaints, records and reporting; and
- (p) Coordination with stormwater shut-off, washwater capture and authorised disposal systems.

The proposed conditions require operational vessel maintenance activities with the potential to discharge contaminants to air to be undertaken in accordance with the certified AQMP.

6.12.10 Conclusion

Construction air quality effects will be temporary and localised and will be appropriately managed through the dust and construction air quality controls in the certified CEMP.

Operational surface preparation effects will be managed through the use of water based and wet methods where practicable, encapsulation of dry abrasive blasting, controlled removal of contaminated coatings, and wind, visual and real-time particulate monitoring.

Spray coating effects have been conservatively assessed on the basis of unencapsulated spraying. The proposed coating specific restrictions, monitoring framework and tiered use of physical screening, encapsulation, extraction, filtration,

activity modification and cessation will manage potential overspray, health and odour effects.

Subject to the proposed conditions and implementation of the certified AQMP, operational air quality effects at off-site sensitive receptors and on the CMA are expected to be low.

6.13 TERRESTRIAL NOISE AND VIBRATION

6.13.1 Introduction

The terrestrial noise and vibration effects of the Project are assessed in the Noise and Vibration Assessment at **Appendix 23**. The dominant operational noise source will be vessel hull surface preparation, particularly wet abrasive blasting. Construction noise will principally arise from piling, dredging, reclamation works and associated heavy construction activity.

Operational noise will be required to comply with the applicable noise limits and will be managed through the Shipyard Noise Management Plan (NMP) (see draft at **Appendix 9H**). The NMP provides the framework for noise monitoring, implementation of the best practicable option for noise management, operational controls, community engagement and complaints response.

The assessment has particular regard to the residential receiving environments at Marsden Bay / Albany Road and Reotahi.

6.13.2 Existing noise environment

The Project is located immediately west of Northport, within an established port and industrial environment at Marsden Point. The wider receiving environment includes Northport, CINZ, other Marsden Point industrial activities, port related transport and shipping activity, coastal recreation areas, and residential communities at Marsden Bay and Reotahi.

The existing noise environment is therefore influenced by a combination of port, industrial, coastal, recreational and community noise sources. Existing port and industrial noise is already audible at times within the surrounding residential communities, particularly during periods of intensive port activity and favourable

propagation conditions. However, the Project will introduce a new shipyard noise source, and that source has been assessed on its own merits.

Monitoring undertaken in 2023 and April 2026 confirms that the existing noise environment remains consistent with earlier measurements. At Marsden Bay, the April 2026 measurements ranged from approximately 40–42 dB LAeq(15 min) before a log vessel berthed at Northport and 43–44 dB LAeq(15 min) after berthing. MDA concludes that there has been no material change in the existing Northport noise environment.

6.13.3 Construction noise and vibration

Construction of the Project will involve marine and land based works, including dredging, reclamation, piling, construction of marine structures, hardstand, buildings, services, access and associated infrastructure.

Construction noise will be temporary and will vary depending on the activity, plant, location and stage of construction. The closest residential receivers are at Marsden Bay, approximately 400–800 m from the construction works, with the closest receivers at Reotahi approximately 1.3–1.5 km away.

Piling is predicted to be the loudest daytime construction activity. MDA predicts piling noise levels of approximately 48–66 dB LAeq at the closest Marsden Bay dwellings, depending on the piling method, location and operating conditions. These levels comply with the applicable daytime construction noise limit of 70 dB LAeq. Piling may nevertheless be noticeable at times because of its character. Impact and vibratory piling will be restricted to daylight hours to enable effective marine mammal observation, which will also reduce the potential for disturbance during the evening and night-time periods.

Dredging may occur on a 24-hour basis. MDA predicts dredging noise levels of approximately 47–49 dB LAeq at the closest Marsden Bay dwellings, depending on the dredging method and location. As those predicted levels may exceed the applicable night-time construction noise limit of 45 dB LAeq in some circumstances, particularly during downwind propagation conditions, dredging will be scheduled and managed so that it complies with the permitted construction noise standards.

This will include prioritising dredging during daytime and evening periods and, where dredging is undertaken at night, having regard to meteorological conditions and undertaking noise monitoring as necessary to verify compliance.

Accordingly, dredging will, where practicable, be prioritised between 6.30 am and 8.00 pm Monday to Friday and between 7.30 am and 6.00 pm on weekends. Where dredging is undertaken outside those periods, it will be scheduled having regard to meteorological conditions and managed through noise monitoring where required to demonstrate compliance with the applicable construction noise limits.

Other potential night-time construction activities, including excavation, equipment and material deliveries and concrete pours, are predicted to comply with the applicable night-time limits and will generally be consistent with the character of existing port activity.

Given the separation distances between the works and residential receivers, construction vibration is predicted to comply with the applicable standards and is unlikely to be perceptible within nearby buildings.

Overall, daytime construction activities are predicted to comply with the applicable construction noise limits. Night-time activities, including dredging, will require appropriate scheduling, monitoring and management to ensure compliance. Subject to those measures, construction noise and vibration effects will be temporary and acceptable.

6.13.4 Operational noise effects

Vessel surface preparation will be the dominant operational noise source. Wet abrasive blasting is the loudest method expected to be used regularly and has therefore formed the principal basis of the modelling in the Noise Assessment. Ultra-high-pressure water blasting, high-pressure water blasting and vacuum abrasive blasting are progressively quieter. Other activities, including internal vessel work, painting, compressors, generators and vehicle movements, are predicted to be at least 20 dB below daytime blasting levels.

Operational noise will be required to comply at the notional boundary of any noise sensitive activity with 55 dB LAeq(15 min) between 0700 and 2200 hours and 45 dB LAeq(15 min) and 75 dB LAFmax between 2200 and 0700 hours.

Modelling confirms that the floating drydock scenario will comply with the daytime limit due to shielding provided by the drydock wing walls. Wet abrasive blasting on vessels located on the hardstand requires operational controls and, where necessary, localised acoustic screening. Those measures include use of quieter blasting methods where practicable, management of blasting crew numbers and locations, scheduling having regard to meteorological conditions, low noise nozzles where appropriate, and localised screening for elevated blasting with direct line of sight to Marsden Bay dwellings. These measures will be implemented through the NMP.

At Marsden Bay, blasting may remain noticeable during intensive daytime operations, including with mitigations in place, because of its distinctive character, with MDA assessing those residual effects as perceptible to noticeable. At Reotahi, effects are assessed as perceptible at most. Outdoor blasting, hammering and grinding will not occur during the evening, night-time or on Sundays. Other quieter activities may occur at night provided the applicable noise limits are met. Subject to those controls and implementation of the NMP, operational noise effects are considered manageable and acceptable.

6.13.5 Conclusion

Subject to compliance with the applicable noise limits, implementation of the NMP and the specific operational controls identified above, the Project is not expected to result in unacceptable terrestrial noise or vibration effects.

6.14 LANDSCAPE EFFECTS

6.14.1 Environmental context

The landscape, natural character and visual effects of the Project are assessed in the Landscape Assessment at **Appendix 19**.

The landscape context is one that already contains a marked juxtaposition between the highly modified port and industrial shoreline at Marsden Point and the more visually prominent harbour waters, volcanic landforms, coastal settlements and reserve areas of the wider Whangārei Harbour environment. The receiving environment is therefore characterised by a strong interaction between natural, residential, recreational and maritime industrial elements.

At the broader harbour scale, the existing Northport facility and the CINZ facility are dominant features of the southern harbour edge. They include reclamation, wharves, jetties, large vessels, storage areas, lighting, industrial buildings, tanks, pipelines and other infrastructure. Those elements already form a prominent part of views from locations around Whangārei Harbour and Whangārei Heads, and contribute to the established maritime-industrial character of Marsden Point.

At the same time, the wider harbour retains important landscape values. These are associated with the open expanse of harbour waters, the volcanic landforms and coastal ridges of Whangārei Heads, including Mt Manaia, Mt Aubrey, Taurikura, Mt Lion, Home Point, Busby Head and Bream Head, and the sequence of coastal bays, settlements and reserve areas on the northern side of the harbour. From Marsden Bay and One Tree Point, the landscape is strongly influenced by the contrast between the open harbour waters, the Whangārei Heads backdrop and the existing port and industrial development at Marsden Point.

The most sensitive local receiving environment identified for the Project is the Marsden Bay / Albany Road / Blacksmiths Creek interface. This area is closer to the Project than most other public or residential viewpoints and is less directly exposed to the existing port than locations that look across the main harbour channel. Blacksmiths Creek currently provides a physical and visual buffer between the existing port edge and the residential, recreational and coastal reserve environments of Marsden Bay, Marsden Cove and One Tree Point. That buffer contributes to the current sense of separation between the working port and the more open harbour waters and beachfront environments to the west.

The Project will be located at the western end of the existing Northport facility and will extend port related reclamation, structures and activity closer to Blacksmiths Creek and Marsden Bay. The key landscape elements relevant to the assessment include the proposed reclamation, drydock or ship lift infrastructure, hardstand, buildings, lighting, cranes and other operational plant, together with the presence of vessels within the drydock, on the hardstand and at the western jetty.

The landscape assessment therefore needs to be understood at two related scales. At the broader harbour scale, the Project will generally be viewed in association with the existing Northport and CINZ maritime industrial environment. At the local scale, particularly from Marsden Bay Reserve, the Albany Road beachfront and Blacksmiths Creek, the Project will be more immediate and will alter the existing relationship between the port edge, Blacksmiths Creek, the open waters of Marsden Bay and views toward Whangārei Heads.

This distinction is important because any adverse landscape effects identified the Landscape Assessment are not evenly distributed across the harbour. The most pronounced effects are concentrated in the Marsden Bay / Albany Road / Blacksmiths Creek receiving environment, while effects from most wider harbour viewpoints are assessed as lower because of distance, viewing orientation, and the existing prominence of Northport and the CINZ facility within the southern harbour landscape.

6.14.2 Harbour-scale effects

At the broader harbour scale, and consistent with the distinction identified above, the Landscape Assessment concludes that the Project will generally read as an extension of the established Northport and CINZ maritime industrial environment rather than as a wholly separate or discordant activity.

From many wider viewpoints around Whangārei Harbour and Whangārei Heads, including Taurikura Bay, Manganese Point Road, Takahiwai Road, McKenzie Bay, Tamaterau Point, Takahiwai Marae and the Port Marsden Highway, the proposed reclamation, haul-out facility, vessels, buildings and associated structures will visually merge to varying degrees with the existing port and industrial shoreline.

In those wider views, the proposal will reinforce the established maritime industrial character of Marsden Point but will not fundamentally change the broader landscape pattern of the harbour. That pattern is already characterised by a strong contrast between the modified port and industrial edge on the southern side of the harbour and the more natural volcanic landforms, harbour waters and coastal margins associated with Whangārei Heads and the wider harbour entrance.

The Landscape Assessment identifies that landscape effects from these wider locations are generally very low to low, with low-moderate effects at McLeod Bay. That reflects the viewing distances involved, the visual association of the Project with the existing Northport and CINZ facilities, and the continued dominance of the harbour waters and Whangārei Heads landforms in wider harbour views.

Dredging and construction activity will also be visible from some wider locations. However, those activities will occur within an environment already influenced by port operations, shipping, marine construction and vessel movement. At the harbour scale, those temporary activities will not materially alter the overall landscape character of the lower harbour.

Overall, the Project's harbour scale landscape effects are assessed as limited. The proposal will contribute to the cumulative maritime industrial character of Marsden Point, but will remain visually and functionally associated with the existing port edge and will not fundamentally alter the wider landscape structure or identity of Whangārei Harbour.

6.14.3 Localised effects

The Landscape Assessment identifies a more adverse level of landscape effects in the Marsden Bay / Albany Road / Blacksmiths Creek receiving environment. In this location, the Project will be more immediate, will visibly extend the maritime industrial edge westward, and will alter the present relationship between the port, the mouth of Blacksmiths Creek and the open harbour waters of Marsden Bay.

The most appreciable landscape and visual effects will arise not only from the reclamation and fixed structures, but also from the presence of large vessels,

encapsulation / scaffolding where used, mobile plant, lighting and the operational character of the shipyard.

From Marsden Bay Reserve and the Albany Road beachfront, the reclamation, vessels within the drydock or on the hardstand, vessels at the western jetty, lighting, buildings and operational activity will materially increase the visual prominence of port related development. Those elements will make Marsden Bay feel more enclosed by port infrastructure, reduce the perceived openness of the eastern bay, and increase the dominance of maritime industrial activity within views that currently derive much of their character from the harbour waters and Whangārei Heads backdrop.

The Landscape Assessment considers landscape effects at Marsden Bay Reserve and Albany Road beachfront to be high. The AEE therefore recognises that the Project will give rise to significant localised landscape effects in these receiving environments.

The indicative appearance of the Project from Marsden Bay Reserve is shown in **Figure 6-1**.



Figure 6-1: Proposed view from Marsden Bay Reserve

The indicative appearance of the Project from the Albany Road beachfront are shown in **Figure 6-2**.



Figure 6-2: Proposed view from Albany Road beachfront

At Blacksmiths Creek, the Project will also be experienced as a closer and more direct expansion of the port edge. While the existing port and CINZ facilities already strongly influence the wider landscape context, the Project will increase the perceived separation of Blacksmiths Creek from the harbour and reduce the effectiveness of the existing vegetated interface in screening port activity from the creek and adjacent public access areas.

At One Tree Point, the Landscape Assessment identifies moderate landscape effects, principally because vessels within the drydock, on the hardstand, or at the western berth may be visually prominent and may project the perceived port edge further into Marsden Bay. At Reotahi, landscape effects are assessed as low-moderate. In both cases, the effects are moderated by the existing dominance of Northport and CINZ within cross-harbour views, but the Project will still incrementally increase the maritime industrial character of the southern harbour edge.

At McLeod Bay, landscape effects are assessed as low-moderate. From that location, the Project will be visible as an extension of the existing port edge, but will be sufficiently distant and visually associated with the existing maritime industrial environment that it will have a relatively modest effect on landscape character and values.

Overall, the Project's adverse landscape effects are concentrated in the immediate Marsden Bay / Albany Road / Blacksmiths Creek receiving environment. Effects are significant but localised at Marsden Bay Reserve and Albany Road beachfront;

moderate at One Tree Point and Reotahi; low-moderate at McLeod Bay; and low to very low across most other wider harbour viewpoints.

6.14.4 Effects summary

The Project will give rise to significant localised landscape effects at Marsden Bay Reserve and the Albany Road beachfront, where the reclamation, vessels, western jetty, lighting and operational activity will materially increase the prominence of port related development within the Marsden Bay / Blacksmiths Creek interface.

Those effects are localised rather than harbour-wide. At the broader harbour scale, the Project will generally be viewed as an extension of the existing Northport / CINZ maritime industrial environment and will not fundamentally alter the wider landscape structure, identity or character of Whangārei Harbour.

Landscape effects are assessed as moderate at One Tree Point and Reotahi, low-moderate at McLeod Bay, and low to very low from most other wider harbour viewpoints. The proposal will therefore result in an appreciable adverse landscape effect in the immediate Marsden Bay / Albany Road / Blacksmiths Creek environment, while broader harbour scale effects remain limited.

For the purposes of the statutory assessment, the significant effects identified in the Landscape Assessment are significant localised landscape and visual amenity effects experienced from the Marsden Bay Reserve and Albany Road beachfront receiving environment. Those effects are not assessed as significant harbour wide landscape effects, nor do they fundamentally alter the wider landscape structure, identity or character of Whangārei Harbour. The statutory assessment therefore distinguishes between significant localised visual / landscape amenity effects and significant adverse effects on natural features and natural landscapes.

6.15 NATURAL CHARACTER EFFECTS

6.15.1 Environmental context

This section addresses the natural character effects assessed in the Landscape Assessment at **Appendix 19**.

The Landscape Assessment assesses natural character effects by reference to the existing coastal environment of Whangārei Harbour, including the extent to which that environment is already modified by port infrastructure, industrial activity, residential development, roading, moorings, navigation activity and other human influences.

The harbour contains a broad range of natural character values. These range from heavily modified port, industrial and settlement margins through to areas of high and outstanding natural character associated with Blacksmiths Creek, harbour banks, coastal margins, open water areas, and the volcanic landforms and seascapes of Whangārei Heads.

The Project is located adjacent to the existing Northport and CINZ maritime industrial environment. That part of the harbour has already been substantially modified by reclamation, wharves, dredging, vessel movements, port lighting, industrial structures and operational port activities.

However, the Project is also close to Blacksmiths Creek, which is identified as a High Natural Character Area, and will be visible from parts of Marsden Bay and Albany Road where the harbour waters, creek mouth, coastal vegetation and Whangārei Heads backdrop continue to contribute to natural character values.

The natural character assessment therefore needs to recognise both aspects of the receiving environment: the highly modified maritime industrial context at Marsden Point, and the more sensitive natural character values associated with the Marsden Bay / Albany Road / Blacksmiths Creek interface.

6.15.2 Assessment

A central conclusion of the Landscape Assessment is that the Project will extend development within a part of the coastal environment that is already appreciably modified by the Northport and CINZ facilities. The proposal is therefore assessed as consolidating and extending an existing maritime industrial node, rather than introducing a new and unrelated form of development into an otherwise unmodified coastal environment.

At the wider harbour scale, the Project will reinforce the existing contrast between the more developed southern harbour edge and the more natural northern side of the harbour, without fundamentally altering that overall pattern. For that reason, most assessed viewpoints attract low to very low natural character effects, including Taurikura Bay, Manganese Point Road, Takahiwai Road, One Tree Point, McKenzie Bay, Tamaterau Point, Takahiwai Marae and the Port Marsden Highway. McLeod Bay and Reotahi are assessed as having low-moderate natural character effects.

More appreciable natural character effects are identified in the immediate vicinity of the Project, particularly where the reclamation will project into the harbour near Blacksmiths Creek and where development will alter the relationship between Marsden Bay, the creek margins and the existing port edge.

At Marsden Bay Reserve, natural character effects are assessed as moderate. This reflects the way in which the proposal will compound the structural incursion of built and maritime industrial elements into a part of the harbour that still derives much of its character from the interplay of open water, volcanic landforms and the harbour edge.

At the Albany Road beachfront, natural character effects are assessed as moderate-high. The Landscape Assessment notes that this part of the bay presently feels slightly more natural than the wider Marsden Bay environment because of its closer relationship with Blacksmiths Creek and the screening presently afforded by vegetation. In that context, the proposed reclamation will be more immediate and will more obviously alter the perceived connection between the beachfront, the creek margins and the wider harbour.

The Landscape Assessment also identifies moderate-high natural character effects at Blacksmiths Creek Reserve. These effects primarily arise because the Project will increase the perceived separation of Blacksmiths Creek from the harbour, physically encroach on the outer margins of the feature, and increase awareness of built structures, vessels, lighting and port related activity near the creek mouth.

These localised effects are appreciable and require careful recognition. However, they are moderated by the existing relationship between Blacksmiths Creek,

Marsden Bay and the operational port environment. The Project will also remain physically and visually associated with the existing Northport / CINZ maritime industrial setting, rather than extending port related development into the more natural northern harbour margins or directly into an Outstanding Natural Character Area.

The Landscape Assessment also records that its findings on perceived natural character effects do not substitute for separate specialist assessment of ecological, habitat, coastal process or cultural effects. Those matters are addressed in other technical assessments supporting this application.

6.15.3 Effects summary

Overall, the Project will have a noticeable adverse effect on natural character in the local Marsden Bay / Albany Road / Blacksmiths Creek environment. Those effects are most evident where the development will directly alter the coastal margin near Blacksmiths Creek and where the reclamation, vessels, western jetty, lighting and operational activity will increase the influence of maritime industrial development within views from Marsden Bay and Albany Road.

The highest natural character effects are assessed as moderate-high at Albany Road beachfront and Blacksmiths Creek Reserve. Natural character effects at Marsden Bay Reserve are assessed as moderate. Effects at Reotahi and McLeod Bay are assessed as low-moderate, and effects from most wider harbour viewpoints are low to very low.

The natural character effects do not reach the point of being significant in terms of the assessment scale adopted in the Landscape Assessment or NZCPS Policy 13(1)(b). That conclusion reflects the already modified character of Marsden Point, the physical and visual integration of the Project with the existing port and industrial shoreline, and the fact that the broader natural character of the Whangārei Harbour will remain legible.

Accordingly, the Project will result in moderate to moderate-high localised adverse natural character effects at the Marsden Bay / Albany Road / Blacksmiths Creek

interface, but will not fundamentally change the wider natural character of Whangārei Harbour as a whole.

6.16 AMENITY AND LIGHTING EFFECTS (EXCLUDING NOISE)

6.16.1 Assessment context

This section addresses the visual amenity and lighting effects assessed in the Landscape Assessment at **Appendix 19**.

In addition to noise effects which are addressed separately, the Landscape Assessment recognises that visible activity, lighting and awareness of operational use can contribute to the overall amenity. This section addresses the way in which the Project may affect people's appreciation of the pleasantness, aesthetic coherence, recreational attributes and general experiential qualities of the surrounding coastal environment. Noise effects are assessed separately in 6.13.

The amenity values most relevant to this assessment are associated with public and residential views across Marsden Bay and Whangārei Harbour, use of the Marsden Bay / Albany Road beachfront, the Blacksmiths Creek walkway and reserve environment, and cross-harbour views from Reotahi and parts of Whangārei Heads.

The existing amenity environment is mixed. The harbour, Whangārei Heads landforms, open water areas, coastal margins and Blacksmiths Creek contribute positively to local amenity values. At the same time, the existing Northport facility, CINZ terminal, port lighting, vessel movements, industrial activity, residential development and existing public access infrastructure form part of the established receiving environment.

The Project will be located within and adjoining that modified maritime industrial setting. However, it will also extend that activity westward toward Marsden Bay and Blacksmiths Creek, where public access, residential outlook and recreational amenity values are more sensitive to change.

6.16.2 Assessment of day-time amenity effects

During the day, the Project's amenity effects will be most pronounced in the Marsden Bay / Albany Road / Blacksmiths Creek receiving environment. In this location, the

reclamation, vessels within the drydock or on the hardstand, vessels at the western jetty, buildings, cranes and operational activity will materially increase the presence of port-related activity in views from public and residential locations.

At Marsden Bay Reserve and the Albany Road beachfront, the Project will make the eastern side of Marsden Bay feel more enclosed by port related infrastructure. It will reduce the perceived openness of the bay, increase the visual dominance of maritime industrial activity, and alter views that currently derive much of their amenity value from the combination of harbour waters, coastal margin and Whangārei Heads backdrop.

The Landscape Assessment identifies high amenity effects at Marsden Bay Reserve and Albany Road beachfront. On the assessment scale adopted in that report, those effects are significant. The AEE therefore recognises that the Project will give rise to significant but localised adverse day-time amenity effects in those receiving environments.

At Blacksmiths Creek, the Project will also be experienced as a closer and more direct extension of port activity. The proposal will reduce the perceived separation between the creek environment and the port, and will lessen the screening and buffering effect currently provided by the existing vegetated edge and open coastal margin. That will adversely affect the experience of users of the Blacksmiths Creek walkway and reserve area.

At One Tree Point, amenity effects are assessed as moderate. The main effect will arise from the increased visibility of vessels associated with the drydock and western berth, which may project the perceived port edge further into Marsden Bay. However, those effects will be moderated by intervening vegetation, viewing distance, and the existing presence of Northport and CINZ in the wider harbour outlook.

At Reotahi, amenity effects are also assessed as moderate. The Project will increase the industrial character of views toward Marsden Point and extend port related activity westward. However, existing views from Reotahi are already strongly influenced by Northport, shipping activity and the CINZ terminal, which moderate the additional effect of the Project.

At McLeod Bay, amenity effects are assessed as low-moderate. From more distant harbour viewpoints, the Project will generally be perceived as an extension to the existing maritime industrial environment and will have limited effect on people's appreciation of the wider harbour landscape.

Overall, day-time amenity effects are significant but localised at Marsden Bay Reserve and Albany Road beachfront; moderate at One Tree Point and Reotahi; low-moderate at McLeod Bay; and low to very low from most other wider harbour viewpoints.

6.16.3 Assessment of night-time amenity effects

Night-time amenity effects will primarily arise from operational lighting and the visibility of lit vessels, plant, structures and working areas associated with the shipyard. These effects will be experienced in the context of existing night-time lighting associated with Northport, CINZ, vessel movements, navigation aids and surrounding settlement.

The Landscape Assessment identifies that night-time effects will be most apparent from Marsden Bay / Albany Road and Reotahi. From those locations, the Project will extend the existing pattern of port type lighting further west and will increase the visibility of maritime industrial activity at night.

At Marsden Bay and Albany Road, night-time lighting has the potential to reinforce the perception of the bay being more enclosed by port related activity. The effect will be most noticeable where lighting associated with the western edge of the reclamation, berthed vessels, work areas, cranes or elevated structures is visible from public or residential viewpoints.

At Reotahi, the Project will add to the existing pattern of industrial and port lighting visible across the harbour. However, those effects will be moderated by the presence of existing Northport and CINZ lighting, which already form prominent components of the night-time outlook from this location.

From more distant locations, night-time amenity effects are expected to be limited due to viewing distance, the existing industrial lighting environment at Marsden Point, and the visual association of the Project with the established port complex.

Lighting effects will be managed through detailed design and an OLMP. That plan will address luminaire orientation, avoidance of unnecessary upward light, control of light spill and glare, colour temperature, operational controls for non-essential lighting, and specific measures to minimise adverse effects on residential and recreational amenity where practicable.

6.16.4 Mitigation

Landscape planting

The Landscape Assessment identifies that the highest landscape, natural character and amenity effects will occur in the Marsden Bay / Albany Road / Blacksmiths Creek receiving environment. Those effects arise primarily from the westward extension of port related structures and activity, the visibility of vessels within the drydock, on the hardstand and at the western jetty, and the increased prominence of lighting and maritime industrial activity in the Marsden Bay receiving environment.

In response to those effects, a Landscape Plan will be required as a condition of consent. The Landscape Plan will include pōhutukawa planting along the western edge of the reclamation, together with associated landscape treatment where practicable, to soften the visual interface between the shipyard and the Blacksmiths Creek / Marsden Bay environment.

The purpose of the Landscape Plan will not be to screen the Project in full. Given the scale of the reclamation, the operational need for open hardstand areas, and the height and visibility of vessels, cranes, lighting and other shipyard elements, full screening is neither practicable nor realistic. Rather, the purpose of the Landscape Plan will be to soften the lower western edge of the reclamation, provide a more appropriate coastal edge treatment, reduce the visual hardness of the reclamation edge where practicable, and assist in integrating the public access and fishing platform components of the Project into the surrounding coastal environment.

The Landscape Plan will be prepared by a suitably qualified landscape architect and will address:

- (a) The location, extent and species composition of pōhutukawa planting along the western edge of the reclamation;

- (b) Any associated coastal planting or landscape treatment;
 - (c) The treatment of fencing, barriers, revetment edges, surface finishes and other visible elements along the western edge of the reclamation, where practicable;
 - (d) Integration of the public walkway and relocated fishing platform with the western edge of the reclamation;
 - (e) Measures to maintain public safety and operational security;
 - (f) Establishment, replacement planting and long-term maintenance requirements;
- and

Night-time amenity effects mitigation

Lighting effects will be managed through detailed lighting design and the OLMP. That plan will confirm luminaire orientation, avoidance of unnecessary upward light, control of light spill and glare, colour temperature, operational controls for non-essential lighting, and specific measures to minimise adverse effects on residential and recreational amenity where practicable.

The Landscape Plan and lighting controls will assist in reducing and softening the Project's localised effects.

6.16.5 Effects summary

The Project will result in significant localised adverse amenity effects at Marsden Bay Reserve and the Albany Road beachfront. Those effects arise from the increased prominence of reclamation, vessels, the western jetty, buildings, lighting and operational activity within the Marsden Bay / Blacksmiths Creek interface.

Those effects are localised rather than harbour wide. Across the wider harbour, the Project will generally be perceived as an extension of the existing Northport / CINZ maritime industrial environment and will have a more limited effect on amenity values.

Amenity effects are assessed as high at Marsden Bay Reserve and Albany Road beachfront, moderate at One Tree Point and Reotahi, low-moderate at McLeod Bay, and low to very low from most other wider harbour viewpoints.

The Project will therefore materially affect the amenity experienced by users and residents closest to Marsden Bay, Albany Road and Blacksmiths Creek. However, it will not fundamentally alter the wider amenity character of Whangārei Harbour as a whole, which will continue to be defined by the interplay between the existing port / industrial environment, harbour waters, residential and recreational coastal margins, and the volcanic landscape of Whangārei Heads.

6.17 RECREATION AND PUBLIC ACCESS

6.17.1 Introduction

The effects of the Project on recreation and public access are assessed in the Recreation Assessment at **Appendix 26**.

The receiving environment is characterised by a modified working harbour setting, where established port and industrial activities coexist with a range of public recreation opportunities. These include walking, fishing, boating and general coastal use across both localised areas (such as Blacksmiths Creek) and the wider Whangārei Harbour.

For the purposes of this assessment, the key recreation receptors are:

1. The Blacksmiths Creek Walkway and associated access
2. The western fishing pier and revetment walkway
3. The small beach at the western edge of the port
4. Recreational boating movements in the vicinity of Marsden Cove

These represent the recreation resources most directly associated with the application site.

6.17.2 Assessment approach

Effects have been assessed having regard to:

- The value and sensitivity of the recreation resource.
- The scale, duration and geographic extent of change.
- The availability of alternative recreation opportunities.
- The extent to which effects can be avoided, remedied or mitigated.

Effects are described using a qualitative scale (nil, low, moderate, high, significant), consistent with standard recreation assessment practice.

6.17.3 Construction effects

Access and facility disruption

During construction, the primary effect on recreation will be the temporary closure of the western fishing pier and revetment walkway, while replacement facilities are constructed.

This will restrict access to an established local fishing and walking destination for the duration of construction. While users will be displaced, alternative locations are available including the eastern fishing pontoon, nearby beaches and access points, and other harbour-based recreation areas.

On this basis, the effects will be temporary and moderate, reflecting the localised importance of the facility, the availability of substitute opportunities, and the temporary nature of the closure

Construction activity within the CMA

Construction activities, including dredging and vessel movements, will introduce temporary disturbance within the CMA. Potential effects include:

- Localised disruption to boating routes.
- Temporary changes in water clarity and amenity.
- Increased presence of plant and equipment.

However, these effects occur within an existing port environment, where users are accustomed to industrial activity and maritime controls. Recreational users can continue to operate outside the immediate works area.

Accordingly, effects on recreational boating and water based activity during construction are appropriately assessed as low.

6.17.4 Operational effects

Loss and modification of beach

The most notable operational effect of the proposal is the partial loss and modification of the small beach located at the western end of the port, adjacent to the Blacksmiths Creek Walkway.

This beach currently functions as a destination for walkway users and contributes to the overall recreational experience of that area. The proposal will incorporate part of the beach within the reclamation footprint and alter the character of the remaining area through the introduction of adjacent port infrastructure and a more industrialised setting.

While the beach is limited in size and does not serve a wider district-scale function, it has a clear local value. Its loss and modification will change the nature of the experience at the end of the walkway and reduce the availability of that particular recreational setting.

For these reasons, the effect on this resource is assessed as high at the local scale and locally significant for regular users of the area.

At the wider harbour scale, the effect is less pronounced, as there are numerous other beaches and coastal environments that provide similar or higher amenity values.

Fishing access and facilities

The proposal provides for the replacement of the existing western fishing pier adjacent to the Northport facility, with continued public access via a reconstructed walkway.

The replacement pier will offer substantially the same functionality as the existing structure, with a similar size and layout. It will be located slightly further from the start of the walkway but will remain readily accessible. There is also potential for improved fishing conditions due to its position in deeper water.

The core recreational opportunity (shore based fishing from a purpose-built structure) will be retained.

Taking these factors into account, the long-term operational effect on fishing access is assessed as low, on the basis that the replacement facility achieves an equivalent or improved level of functionality.

Walking and general coastal use

Walking, running, and general coastal use will continue to occur in the locality, including along the Blacksmiths Creek Walkway and associated access routes.

The proposal will introduce a more industrialised setting at the western edge of the port and will alter the character of the walkway terminus. However, the walkway itself will remain available and functional, and the wider network of public access along the harbour margin will be unaffected.

Users may experience a change in amenity and setting in the immediate vicinity of the proposal, particularly at the end of the walkway. However, these changes are localised and do not restrict access or remove the broader opportunity for walking and informal recreation.

On that basis, effects on walking and general coastal use are assessed as low.

Boating and water based recreation

The proposal will require minor adjustments to navigation patterns for recreational vessels travelling in the vicinity of Marsden Point, particularly those accessing Marsden Cove.

These adjustments will involve small changes in vessel routing and an increased need for awareness of port operations and vessel movements. However, the area is already characterised by active commercial shipping and navigation controls, and recreational users currently operate within this environment.

Importantly, the proposal does not affect the main navigation channel or materially constrain access to the wider harbour. Recreational boating, fishing, and other water based activities will continue to occur, both within the harbour and in surrounding coastal waters.

Accordingly, operational effects on boating and water based recreation are assessed as low.

Other recreation activities

Other recreational activities, including picnicking, birdwatching and informal coastal use, will experience some localised change in setting quality near the Project area. These changes arise from the increased presence of shipyard infrastructure and associated activity.

The Project will, however, provide a small bird viewing hide along the public accessway. The hide will provide seating and screened viewing toward Blacksmiths Creek and associated coastal bird habitat, creating a dedicated birdwatching opportunity.

The wider availability of birdwatching and other informal coastal recreation opportunities will not be materially affected. Comparable or higher quality settings will remain readily accessible within a short distance of the site. Taking account of the bird viewing hide, the effects on these activities are assessed as low and include a localised positive recreational benefit.

6.17.5 Cumulative effects

The proposal must be considered in the context of existing and consented port activities at Marsden Point, including the authorised but unimplemented Northport expansion works.

In combination, these developments will incrementally increase the extent of developed coastal edge in the immediate port vicinity and reduce some areas of coastal margin. However, these changes remain localised within an established port and industrial node and do not alter the overall pattern of recreation across the Whangārei Harbour.

Recreational opportunities, including access, fishing, boating, and beach use, will continue to be available across multiple locations within the harbour and on both the northern and southern shores.

Cumulative recreation effects are therefore assessed as low to moderate at a local scale and no more than minor at the scale of the wider harbour.

6.17.6 Positive effects and mitigation

The proposal includes measures that will maintain public access and provide opportunities for improvement relative to the existing situation. These include the reinstatement of the fishing pier and associated access, a bird viewing hide, and the potential for improved accessibility through by enabling full use by those with mobility impairments.⁹

There is also potential to incorporate viewing opportunities that allow members of the public to safely observe shipyard activity.

While these measures do not remove the adverse effects associated with the loss of the small beach, they contribute to maintaining and enhancing the overall recreational offering in the locality.

6.17.7 Overall conclusion

The proposal will result in a localised adverse effect on recreation associated with the loss and modification of the small beach at the end of the Blacksmiths Creek Walkway. That effect is assessed as high at the local scale and locally significant for users of that specific location.

Beyond this, recreation effects are limited. Fishing access is maintained through replacement infrastructure, walking and public access continue to be available, and boating and wider harbour based recreation are largely unaffected.

When considered in the context of the existing working harbour environment and the availability of alternative recreation opportunities, the overall recreation effects of the proposal are localised and generally low to moderate, with no material impact on the wider recreation resource of Whangārei Harbour.

⁹ Specifically, construction of a ramp from the existing walkway to the top of the revetment wall to meet wheelchair requirements and then the same at the pier.

6.18 ARCHAEOLOGICAL EFFECTS

6.18.1 Introduction

The archaeological effects of the Project are assessed in the Archaeological Assessment at **Appendix 20**.

The assessment considers recorded archaeological sites, the archaeological sensitivity of the Project footprint, the potential for unrecorded archaeological material to be encountered during works, and the measures proposed to manage accidental discoveries.

6.18.2 Archaeological context

The wider One Tree Point / Marsden Point area has a long history of Māori occupation and coastal resource use. Archaeological investigations in the wider area demonstrate the widespread nature of Māori settlement and seasonal resource use in the coastal environment, including midden deposits associated with shellfish gathering and processing.

Twenty archaeological sites are recorded within approximately 1 km of the Project area. These sites are all midden deposits, with one recorded as midden / pit. The recorded sites are located outside the proposed development footprint, predominantly to the south-west of the proposed shipyard and drydock facility.

No archaeological sites are recorded within the proposed development footprint or within the adjacent marine area.

6.18.3 Field assessment and archaeological sensitivity

A field survey did not identify any archaeological sites or features within the Project area. Shell material observed on the beach and within dunes was interpreted as natural beach derived shell rather than archaeological material.

Given the extent of historical modification associated with reclamation, dredging, port development and ongoing port maintenance activities, the Archaeological Assessment concludes that the potential for intact archaeological deposits to survive within the proposed marine works area is low.

6.18.4 Potential archaeological effects

The Project involves reclamation, dredging, coastal works, access works, earthworks, construction of structures and associated ground disturbance. These works have the potential to disturb archaeological material if any previously unrecorded archaeological features are present within the works area.

On the basis of the Archaeological Assessment, no known archaeological sites will be directly affected by the Project. The likelihood of encountering intact archaeological material within the proposed development footprint is assessed as low.

The principal archaeological risk is therefore the accidental discovery of previously unrecorded material during earthworks or coastal works. This risk can be appropriately managed through standard accidental discovery procedures and, if required, compliance with the Heritage New Zealand Pouhere Taonga Act 2014.

6.18.5 Heritage New Zealand Pouhere Taonga Act 2014

All archaeological sites, whether recorded or unrecorded, are protected under the Heritage New Zealand Pouhere Taonga Act 2014 if they meet the statutory definition of an archaeological site.

If archaeological material is discovered during works, works must cease in the vicinity of the discovery and the accidental discovery protocol must be implemented. Depending on the nature of any discovery, an archaeological authority from Heritage New Zealand Pouhere Taonga may be required before works recommence in the affected area.

6.18.6 Accidental discovery protocol

An accidental discovery protocol will apply to earthworks, reclamation related works and other ground disturbance activities.

The accidental discovery protocol will address the discovery of kōiwi tangata, taonga, archaeological material, shell midden, charcoal, hangi stones, artefacts or other material of potential archaeological or cultural significance.

The protocol will require works to cease in the immediate vicinity of the discovery, the area to be secured, and appropriate notifications to be made to tangata whenua, Heritage New Zealand Pouhere Taonga, the consent authority and the New Zealand Police where required. Works will not recommence in the affected area until the discovery has been appropriately assessed and the relevant parties have confirmed the process for recommencement.

6.18.7 Conclusion

No recorded archaeological sites are located within the Project footprint, and the Archaeological Assessment concludes that the potential for intact archaeological material to be present is low. The Project is therefore not expected to result in adverse effects on known archaeological sites.

The possibility of encountering previously unrecorded archaeological material cannot be completely excluded. That risk will be managed through an accidental discovery protocol and, where required, compliance with the Heritage New Zealand Pouhere Taonga Act 2014.

Subject to those measures, archaeological effects are expected to be appropriately managed.

6.19 CULTURAL EFFECTS

6.19.1 Assessment context

The cultural setting of the Project, including the relationship of mana whenua with Whangārei Harbour and Poupouwhenua / Marsden Point, is described in Section 3.2. Engagement undertaken with tangata whenua, iwi, hapū and MACA applicant groups is described in Section 2.7 and recorded in **Appendix 4**. The interim Patuharakeke CIA is included as Appendix 29 to the application material but is not included in the publicly released application material. This assessment therefore identifies and addresses the matters arising from the CIA that are relevant to assessment of the Project, without reproducing culturally sensitive or confidential material unnecessarily.

The assessment in this section therefore focuses on the cultural effects of the Project that can presently be identified from the cultural information available, the Project's technical assessments and matters raised through engagement to date.

The interim Patuharakeke CIA identifies matters including the cultural significance of Poupouwhenua and Rauiri / Blacksmiths Creek, mahinga kai and customary fishing values, ecological health, access to traditional places and resources, and the exercise of kaitiakitanga. The Patuharakeke CIA remains in preparation, with further technical information being provided to assist its completion. Ngāti Tu has also advised that it wishes to prepare a CIA for the Project. Further cultural input is therefore continuing to be provided through the engagement process.

6.19.2 Potential cultural effects

Patuharakeke identifies a range of cultural effects arising from the Project, including those associated with the permanent modification of Whangārei Terenga Parāoa, disruption of cultural landscape and seascape connections, effects on ecological and natural systems, and changes to the way mana whenua interact with and exercise responsibilities in relation to their ancestral environment.

In particular, the Project will involve:

- (a) Permanent reclamation and occupation of part of the CMA;
- (b) Dredging and modification of the seabed;
- (c) Permanent loss and modification of intertidal and subtidal marine habitat, including habitat supporting shellfish and other marine ecological values;
- (d) Effects on avifauna habitat and temporary disturbance of marine mammals during construction;
- (e) Potential water quality effects associated with construction and operation, subject to the proposed controls;
- (f) Changes to the coastal edge and to access and use of part of the CMA;
- (g) Landscape, natural character and amenity change at the western edge of Northport; and

- (h) Further cumulative modification and industrialisation of the lower Whangārei Harbour environment.

These physical and ecological effects also have a cultural dimension. Permanent reclamation, dredging and habitat loss have the potential to affect mahinga kai and customary use values, cultural associations with the harbour, the exercise of kaitiakitanga and perceptions of the health and mauri of the marine environment. The Project will also result in a localised reduction in marine habitat available within rohe moana subject to existing customary fishing arrangements, although it will not alter the legal operation of those arrangements or the functions of Tangata Kaitiaki/Tiaki.

The Project therefore has cultural effects that cannot be completely avoided, particularly those associated with the permanent reclamation, occupation and modification of the CMA and loss of marine habitat. The precise way in which those effects are experienced and their relative cultural significance is properly informed by tangata whenua and will continue to be considered through the ongoing engagement process.

6.19.3 Customary fishing and Fisheries Act Notices

Two customary fishing notices made under the Fisheries (Kaimoana Customary Fishing) Regulations 1998 apply to rohe moana that include the Project area. These are the Fisheries (Kaimoana Customary Fishing) Notice (No. 1) 2009 (No. F482) and the Fisheries (Notification of Tāngata Kaitiaki/Tiaki for Area/Rohe Moana of Ngāti Kahu, Parawhau, Ngāti Tu and Patuharakeke) Notice 2021 (Notice No. MPI 1353). The areas are also identified in the Recreation Effects Assessment at **Appendix 25**.

The customary fishing regime is established under Part 9 of the Fisheries Act 1996. Section 186 enables regulations recognising and providing for customary food gathering by Māori and the special relationship between tangata whenua and places of importance for customary food gathering, including tauranga ika and mahinga mātaitai. The Fisheries (Kaimoana Customary Fishing) Regulations 1998 provide for tangata whenua to manage customary food gathering within an

identified area/rohe moana and for Tangata Kaitiaki/Tiaki to authorise the taking of fish, aquatic life and seaweed for customary food gathering purposes.

The 2009 notice confirms Patuharakeke as tangata whenua of the relevant area/rohe moana and provides for appointed Tangata Kaitiaki to manage customary food gathering within that area. The 2021 notice identifies Ngāti Kahu, Parawhau, Ngāti Tu and Patuharakeke as tangata whenua of the area/rohe moana to which that notice applies and appoints Tāngata Kaitiaki/Tiaki for that area.

The Project will not amend, extinguish or otherwise alter either notice, the status of the relevant tangata whenua, or the statutory functions of the appointed Tangata Kaitiaki/Tiaki. The relevant rohe moana will continue to be subject to the customary fishing regime established under the Fisheries Act and the Fisheries (Kaimoana Customary Fishing) Regulations 1998.

The Project may, however, affect the exercise of customary fishing within the Project area and the resources on which that activity depends. Reclamation will result in the permanent occupation and loss of intertidal and subtidal habitat within part of the rohe moana, while capital and maintenance dredging will modify subtidal habitat. The Marine Ecology Assessment identifies permanent effects on intertidal and subtidal habitats and benthic communities within the Project footprint, including habitats supporting shellfish and other marine fauna. Those ecological effects are assessed in Section 6.4.

These effects are also relevant culturally. The interim Patuharakeke CIA identifies Poupouwhenua and Rauiri / Blacksmiths Creek as important mahinga kai and mātaítai areas and records the historical and continuing importance of shellfish, finfish and other kaimoana to Patuharakeke. It identifies the maintenance of access to traditional places and resources, the health and abundance of mahinga kai, and the ability to exercise kaitiakitanga as important cultural outcomes. The Patuharakeke Hapū Environmental Management Plan similarly seeks protection of the rohe moana, continued customary harvesting of kaimoana and support for kaitiaki monitoring and customary fisheries management.

Accordingly, while the Project will not affect the continued legal operation of the two notices or the statutory authority of Tangata Kaitiaki/Tiaki, it will result in a localised reduction in the area of marine habitat available within the rohe moana and may affect customary fishing values through the permanent loss and modification of habitat within the Project footprint. These effects form part of the wider effects of the Project on mahinga kai, customary use and the relationship of mana whenua with Whangārei Harbour assessed in this section.

The Project incorporates measures to manage effects on marine ecological values, water quality and the wider harbour environment, as described elsewhere in Section 6 and in the proposed conditions and management plans. Engagement with mana whenua is continuing, including in relation to cultural monitoring and mana whenua participation in environmental monitoring and management.

The proposed mātaihai reserve was also raised during the recent engagement with Patuharakeke and Ngāti Tu. Engagement concerning any potential interface between the proposed reserve and the Project is continuing.

Written notice was also provided on 26 June 2026 to relevant tangata whenua in relation to the areas subject to the customary fishing arrangements. That notification is addressed in Section 2.7.3 and recorded in the consultation record at **Appendix 4**.

6.19.4 Effects management and ongoing engagement

The Project incorporates a range of measures that will also assist in avoiding, reducing or managing cultural effects. These include minimising the reclamation footprint to that required for the Project, reuse of suitable dredged material, controls on dredging and sediment generation, marine ecological and avifauna management, marine mammal protection measures, separation and treatment of stormwater and high risk operational runoff, managed public access around the reclamation, and accidental discovery procedures.

Those measures are described in the relevant technical sections of this application and will be secured through the proposed conditions and management plans. They do not remove the cultural effects associated with the permanent reclamation, occupation and modification of the CMA, but they provide an important means of

avoiding or reducing associated effects on ecological health, water quality, wildlife, access and other values.

Engagement with tangata whenua will continue through the consenting and implementation phases of the Project. The proposed cultural conditions are intended to provide for appropriate tangata whenua participation in matters relevant to cultural effects, including cultural monitoring where appropriate, input into relevant environmental management and monitoring arrangements, information sharing and reporting of relevant monitoring results, incidents and management responses. The detailed form of those provisions will be informed by ongoing engagement.

6.19.5 Conclusion

Based on the information presently available, the Project will result in cultural effects associated principally with further reclamation, dredging, permanent occupation and modification of the CMA, marine habitat loss and the associated effects on mahinga kai, customary use, kaitiakitanga and the relationship of tangata whenua with Whangārei Harbour.

Some of those effects are permanent and cannot be fully avoided or remedied. The Project nevertheless incorporates measures to avoid or reduce associated ecological, water quality, wildlife, access and construction effects. The proposed cultural condition framework is intended to provide for ongoing tangata whenua involvement, cultural monitoring where appropriate, information sharing and input into relevant environmental management and monitoring.

Ongoing engagement may further inform the characterisation of cultural effects and the detailed form of the proposed conditions. The application nevertheless identifies the principal cultural effects presently understood and provides a framework through which those effects can be managed and responded to over the life of the Project.

6.20 NAVIGATION SAFETY

6.20.1 Introduction and management framework

The navigation safety effects of the Project are assessed in the Navigation Safety Assessment at **Appendix 24**. The Project is located within an existing commercial harbour where vessel movements are already managed through pilotage, towage, harbour communication and maritime safety systems.

The Navigation Safety Assessment concludes that the proposed facility is navigationally workable, subject to the defined manoeuvring area, vessel and environmental operating limits, adequate tug capability, pilotage, operational procedures and further full-mission simulation before commissioning. Navigation simulation has informed the size, shape and depth of the Stage One manoeuvring area and has demonstrated that the assessed design vessels can safely access and depart the vessel haul-out system within defined operational limits.

Navigation safety will be managed through a certified Navigation Safety Management Plan (NSMP). The NSMP will establish the operational framework for safe vessel movement, manoeuvring, berthing, mooring and haul-out, including vessel specific operating limits, wind, tide, current and under-keel-clearance requirements, tug and pilotage requirements, layby berth controls, communication procedures, emergency arrangements and interface with the Whangārei Harbour Safety Management System.

6.20.2 Construction navigation effects

Construction will involve dredging, reclamation works, construction of marine structures and movement of barges, dredgers and other marine plant. These activities may temporarily occupy parts of the CMA and interact with commercial shipping, tug and pilotage operations, recreational boating and fishing activity.

The resulting effects are temporary and will principally relate to localised restrictions on navigation, the need to coordinate marine construction activity with existing harbour operations, and the management of construction plant and vessels within and adjacent to the Project area.

These effects will be managed through appropriate navigation signals, communication with the Harbourmaster, Northport and other harbour users, notices to mariners where required, and temporary safety or exclusion areas where necessary. Subject to those controls, construction navigation effects are expected to be minor and temporary.

6.20.3 Operational navigation effects

Operation of the Project will introduce new vessel movements at the western end of Northport, including tug-assisted movements of vessels to and from the vessel haul-out system and layby berth. The principal navigation safety effects arise from the interaction of those movements with strong and variable tidal streams, wind conditions, under-keel-clearance requirements, adjoining Northport operations and other commercial and recreational harbour users.

Navigation simulation has demonstrated that the proposed manoeuvring area provides sufficient space and under-keel clearance for the assessed design vessels, including a vessel approximately 231 m in length with a maximum stern draft of approximately 8.5 m. The simulations also demonstrate that vessel movements remain dependent on appropriate operational limits relating to vessel dimensions, draft, displacement and trim, tide, current, wind, tug capability and configuration, pilotage and the position of vessels using the layby berth.

Larger or deeper vessels will operate within narrower environmental windows and may require greater tug capability or additional operating restrictions. For the deeper design vessel assessed at approximately 8.5 m draft, the indicative operating window is around high water or low water slack during a weak spring tide, with winds not exceeding approximately 15 knots mean speed and 20 knots gust speed. These limits are indicative and will be refined through full-mission simulation required under the NSMP.

The NSMP will also address tug and pilotage requirements, current monitoring, the position and use of the layby berth, communication and coordination with the Harbourmaster, Northport and other harbour users, aids to navigation, emergency

and contingency procedures, and the assessment of proposed vessel movements against the applicable operational limits.

Subject to those controls, the Project is not expected to materially adversely affect navigation safety for commercial or recreational vessels in Whangārei Harbour.

6.20.4 Conclusion

The Navigation Safety Assessment concludes that the facility is navigationally workable within defined operational windows. Navigation simulation confirms that the revised manoeuvring area provides sufficient space and under-keel clearance for the assessed design vessels, subject to vessel-specific limits relating to vessel dimensions, draft, displacement and trim, tide and wind conditions, tug capability and configuration, and the position of vessels at the layby berth.

Construction navigation effects associated with marine works and dredging will be managed through temporary navigation controls, communication, notices to mariners, coordination with the Harbourmaster and other harbour users, and appropriate safety or exclusion areas.

Operational navigation safety will be managed through the certified NSMP, informed by full-mission simulation. The NSMP will implement the vessel and environmental operating limits, pilotage and towage requirements, manoeuvring controls, communication procedures and other navigation safety measures identified in the Navigation Safety Assessment.

Subject to those measures and the proposed conditions, the Navigation Safety Assessment concludes that the Project can operate safely within the existing managed harbour environment.

6.21 TRAFFIC AND ACCESS

6.21.1 Overview

The transport effects of the Project are assessed in the Transport Assessment at **Appendix 25**.

For the purposes of this assessment, traffic effects are evaluated in terms of network capacity, operational efficiency, and safety, having regard to the strategic freight

function of SH15. Effects are considered acceptable where the transport network continues to operate within recognised capacity thresholds, maintains safe operation, and does not experience material degradation in level of service.

6.21.2 Operational traffic effects

The proposal will generate traffic associated with workforce movements, servicing activity, and operational requirements of the shipyard facility. These movements will occur within an established freight and industrial corridor centred on SH15.

The Integrated Transport Assessment (ITA) identifies that workforce traffic associated with the proposal is driven by defined shift change periods, rather than conventional commuter peak periods. As a result, a substantial proportion of vehicle movements associated with the proposal occur outside the typical 8:00–9:00am and 4:00–6:00pm peak periods on the wider network, reducing overlap with background commuter traffic and peak freight movements on SH15.

This temporal distribution reduces the extent of overlap with both commuter traffic and peak freight movements on the SH15 corridor, including those associated with Northport. This is reflected in the ITA assessment, which demonstrates that network performance will remain within acceptable limits.

The transport assessment identifies that existing traffic volumes on SH15 are relatively low in absolute terms and that the network is currently operating well within available capacity, particularly outside of peak times, notwithstanding the high proportion of heavy vehicle movements associated with industrial activity. On that basis, the additional traffic generated by the proposal can be accommodated without approaching capacity constraints.

All key intersections along the SH15 corridor are currently operating within capacity and are expected to continue to do so with the addition of proposal traffic. The assessment does not identify any intersection operating at or approaching capacity, nor any location where unacceptable delays or operational constraints will arise.

The ITA confirms that, when assessed against existing traffic volumes and forecast growth, the additional movements generated by the proposal will not result in any exceedance of network capacity or deterioration in intersection performance. This

includes scenarios that incorporate background growth and existing industrial traffic demand within the Marsden Point area. The assessment demonstrates that the network continues to operate within acceptable performance limits with the addition of proposal traffic.

Importantly, the traffic associated with the proposal is of the same general character as that already present on the network. It does not introduce a new traffic typology or demand profile but rather reflects the continuation of industrial and freight related activity within an established industrial corridor.

Operational traffic effects on the wider transport network are appropriately characterised in the ITA as low, and not more than minor.

Operational traffic, access and parking will be managed through the certified OTMP prepared in general accordance with **Appendix 9G**.

6.21.3 Network capacity and safety

The ITA assesses the safety and operational performance of the transport network, having regard to both existing conditions and the additional traffic generated by the proposal.

The existing network is designed to accommodate industrial traffic, including a significant proportion of heavy vehicles. Crash data for the SH15 corridor indicates a relatively low level of recorded incidents over a five-year period, with no evidence of systemic safety issues associated with the operation of the route.

The ITA concludes that the proposal will not compromise the safe and efficient operation of the transport network. This conclusion reflects both the available capacity within the network and the compatibility of proposal traffic with existing traffic conditions.

The proposal does not introduce new or atypical access arrangements, nor does it alter the underlying function of the surrounding road network. Rather, it operates within an established transport environment already configured to support industrial activity.

Accordingly, effects on network capacity and safety are assessed as no more than minor, consistent with the conclusions of the ITA.

6.21.4 Cumulative traffic effects

The ITA explicitly considers cumulative traffic effects, including the influence of existing and consented Northport activities. Those activities form part of the established and reasonably foreseeable future environment.

The ITA incorporates existing and forecast traffic as part of its assessment of network performance.

The ITA specifically accounts for traffic associated with existing and consented Northport activities in its assessment of cumulative effects. This ensures that the performance of the network is evaluated under combined demand scenarios, rather than in isolation. The results of that assessment confirm that the addition of proposal traffic to existing and forecast port related traffic does not result in unacceptable levels of congestion, delay, or network stress.

Importantly, the Project is not functionally linked to Northport. The two activities operate independently, with separate access arrangements. Cumulative effects therefore arise as a result of combined demand on the public road network, rather than through any direct operational relationship.

The ITA identifies that the temporal characteristics of proposal traffic limit interaction with port related (existing and consented) traffic movements. Because workforce travel associated with the proposal is shift based, it does not directly coincide with the periods of highest freight activity on the network. This reduces the potential for cumulative peak loading effects and reinforces the conclusion that the proposal does not materially affect the efficiency of routes servicing Northport.

The ITA demonstrates that the transport network can accommodate the combined effects of existing traffic, forecast growth, and movements generated by the proposal. There is no identification of capacity constraints or network performance issues arising from this cumulative demand.

While it is acknowledged that traffic growth over time, including growth associated with Northport and other industrial activities, may ultimately lead to a need for network upgrades, the ITA confirms that this is not triggered by the proposal in isolation. Rather, any such changes will reflect the combined influence of multiple users of the transport network across the wider Marsden Point area.

Accordingly, cumulative traffic effects, including those associated with Northport, are appropriately characterised as low.

Potential traffic effects of the Project have been discussed with representatives of NZTA and a letter from NZTA is included at **Appendix 37**.

6.21.5 Construction traffic effects

Construction of the proposal will result in temporary increases in traffic associated with workforce movements, delivery of materials, and construction related vehicle activity.

The ITA confirms that these effects can be accommodated within the existing transport network. The network is already used to accommodate heavy vehicles and construction traffic associated with industrial activities in the area.

Given the temporary nature of construction activities and the capacity of the network, these effects will not adversely affect the long-term operation or safety of the transport system.

Construction traffic effects will be managed through a Construction Traffic Management Plan prepared and certified before the relevant construction activities commence.

6.21.6 Overall conclusion

The ITA provides a robust technical basis for evaluating traffic and transport effects associated with the proposal.

That assessment demonstrates that:

- The surrounding transport network has sufficient capacity to accommodate proposal traffic;

- The additional demand represents an incremental increase within an established industrial transport environment; and
- There are no adverse effects on network performance or safety that will preclude the proposal.

The proposal operates as a standalone industrial activity and does not rely on Northport. Any cumulative effects arise from shared use of a common transport network rather than from functional integration with port operations. This conclusion is consistent with the written comments received from NZTA, which did not oppose the Project on transport grounds, subject to appropriate construction and operational traffic management measures.

Overall, the proposal will result in a relatively small increase in traffic demand within an established industrial transport corridor that is currently operating well within capacity. The additional traffic does not result in capacity constraints, safety issues, or degradation of network efficiency, either individually or cumulatively. Having regard to the findings of the ITA and the characteristics of the receiving environment, traffic effects are assessed as no more than minor.

6.22 BIOSECURITY

6.22.1 Introduction

The marine biosecurity effects of the Project are assessed in the Marine Biosecurity Assessment at **Appendix 27**. Biosecurity risks during operation will be managed through a certified Biosecurity Management Plan (BMP), which will establish the framework for vessel screening, management of biofouling and other biological material, containment and waste management, biosecurity hold points, incident response, monitoring and record keeping. Construction stage biosecurity risks will be managed through the construction biosecurity procedures required by the proposed conditions.

6.22.2 Biosecurity context

Whangārei Harbour is an active maritime environment that receives domestic and international vessel movements and already contains a range of marine non-indigenous species. Mediterranean fanworm and other established marine pests

have been recorded within the harbour, including near Northport. Exotic caulerpa is also relevant because fragments can be transferred by anchors, chains, dredges, fishing gear and other equipment that contacts the seabed.

The relevant biosecurity objective is therefore twofold:

- (a) To avoid introducing new or additional marine pests and diseases to Whangārei Harbour; and
- (b) To avoid transferring organisms already present in Whangārei Harbour to other coastal locations.

6.22.3 Construction biosecurity effects

Construction may require vessels, barges, dredging plant, marine plant, temporary structures and submerged equipment to be brought to the Project area from elsewhere. These items may carry biofouling, sediment, retained water or other viable biological material. Temporary structures and equipment may also become colonised while submerged in Whangārei Harbour and create a transfer pathway when removed.

These risks will be managed through pre-mobilisation screening and, where necessary, inspection, cleaning, drying, treatment or exclusion. Construction vessels and equipment will be required to arrive in an appropriately clean and compliant condition. Retained water, sediment and biological residues will not be discharged or transferred through an unmanaged pathway, and temporary structures and equipment will be inspected and managed before being relocated to another coastal location.

These requirements will be implemented through the construction biosecurity management procedures required by the proposed conditions.

6.22.4 Operational biosecurity effects

The facility will receive domestic and international vessels for inspection, cleaning, repair and maintenance. Those activities may remove or disturb biofouling organisms, sediment and other biological material associated with hulls, niche areas, sea chests, propellers, anchors, chains and other submerged equipment. The

principal operational biosecurity risk is therefore the introduction or spread of viable marine pests or diseases through vessel biofouling, retained water and sediment, cleaning activities and associated waste streams.

These risks will be managed through the BMP. The BMP will require pre-arrival screening to determine whether a vessel can be managed through the facility's standard containment, treatment and waste-management systems, requires approval or direction from MPI, the Council or another regulator, or cannot proceed until an unresolved biosecurity matter has been addressed. The purpose of screening is to ensure that vessels requiring cleaning or maintenance are assigned to an appropriate and authorised management pathway.

Activities that remove or disturb biofouling, sediment or other potentially viable biological material will occur only where that material can be appropriately captured and managed. Biofouling debris, sediment, sludge, washwater, cleaning effluent and other biosecurity relevant wastes will be contained, treated and/or disposed of through controlled pathways. Washwater and cleaning effluent will be separated from general stormwater and will not be discharged directly to the CMA.

The BMP will also establish biosecurity hold points, monitoring, record keeping and incident response procedures. Relevant activities will cease or be deferred where a suspected marine pest is detected, required information or regulatory authorisation is absent, or containment, treatment or waste management systems are not operating as required.

Subject to the proposed conditions, construction biosecurity controls and implementation of the certified BMP, the identified biosecurity pathways can be appropriately managed and the Project is not expected to result in an unmanaged introduction or spread of marine pests or diseases.

6.23 NATURAL HAZARDS AND CLIMATE CHANGE

6.23.1 Introduction

The assessment of natural hazards and climate change draws principally on the Coastal Processes Assessment at **Appendix 13**, the Concept Design and Construction Report at **Appendix 11** and the Stormwater Assessment at **Appendix 21**.

This section assesses the actual and potential effects of the Project in relation to coastal erosion, coastal inundation, sea level rise, storm tide, waves, tsunami and stormwater, and the natural hazard risk associated with the proposed reclamation and marine infrastructure.

As a coastal infrastructure project involving reclamation, dredging, wharf structures, hardstand and vessel maintenance activities, the Project must be designed to account for present and future coastal hazard conditions over its operational life.

6.23.2 Existing coastal hazard setting

The lower Whangārei Harbour and Marsden Bay are coastal environments subject to natural coastal processes, including tides, waves, currents, sediment transport, shoreline adjustment, storm tide and tsunami. The wider harbour entrance is a tide dominated inlet system, with strong tidal currents in the harbour entrance and lower harbour, while Marsden Bay is a lower energy environment where shoreline change is influenced by local wind generated waves, tidal flows, sediment movement and the Blacksmiths Creek system.

The sandy shorelines of Marsden Bay and parts of the lower harbour are susceptible to coastal erosion and shoreline adjustment. The Coastal Processes Assessment identifies that the Blacksmiths Creek spit has migrated landward over time, and that the Marsden Bay shoreline is likely to be increasingly influenced by sea level rise and associated increases in the frequency and extent of wave action on upper beach and dune systems.

The Project area is also located within an existing maritime industrial setting where reclamation, dredging, wharves, revetments, coastal structures, stormwater systems and port operations already form part of the receiving environment. The Project therefore needs to be assessed in the context of both the existing hazard environment and the existing modified coastal infrastructure environment at Marsden Point.

6.23.3 Sea level rise and climate change

The Coastal Processes Assessment considers projected sea level rise, including relative sea level rise projections that account for vertical land movement. The

assessment identifies that sea level rise is expected to increase coastal hazard risk over time by enabling waves and elevated water levels to act further landward and more frequently on coastal margins.

For the purposes of this AEE, the relevant climate change effects include:

- (a) Rising mean sea level;
- (b) Increased frequency of elevated coastal water levels;
- (c) Increased coastal inundation potential during storm tide events;
- (d) Increased erosion pressure on sandy shorelines;
- (e) Potential changes in wave action on intertidal and upper beach areas;
- (f) Potential changes in stormwater drainage performance during elevated tailwater conditions; and

The Project does not alter the harbour entrance throat, which controls tidal exchange within the lower harbour. The Coastal Processes Assessment concludes that the Project will not result in measurable changes to harbour water levels and that the effects of the Project on existing and future coastal hazards are negligible. It also concludes that the effects of the Project are unlikely to change significantly with future sea level rise.

6.23.4 Coastal erosion and shoreline change

The Project will permanently replace part of the existing coastal margin with engineered reclamation and coastal structures. Beyond the reclamation footprint, the Coastal Processes Assessment does not predict generalised erosion of the Marsden Bay shoreline as a result of the Project.

The principal shoreline response is expected to be localised to the eastern end of Marsden Bay, particularly around the Blacksmiths Creek spit. The Project will directly occupy a small area at the landward end of the spit and is expected to increase sheltering from some locally generated waves. This may result in a slight reorientation of the spit and accelerate the existing pattern of landward rollback and south-easterly shoreline adjustment. The assessment also identifies the potential for increased sedimentation and mangrove establishment within the more sheltered area in the lee of the reclamation.

These changes represent a localised modification of an existing dynamic shoreline process rather than the creation of a new erosion mechanism. No material change is predicted to the Blacksmiths Creek outlet, and the effects are expected to remain confined to Marsden Bay. The Coastal Processes Assessment assesses the resulting effects on waves, sediment transport and shoreline change within Marsden Bay as minor.

Shoreline and seabed monitoring within Marsden Bay will provide a means of confirming the nature and rate of any Project related change over time and identifying any need for an appropriate management response.

6.23.5 Coastal inundation, storm tide and waves

The Project will be located within a coastal environment exposed to elevated coastal water levels, storm tide, wave action and future sea level rise. The Coastal Processes Assessment records that wave energy at Marsden Point is substantially reduced by the sheltering effects of Whangārei Heads and the ebb-tide delta, while waves within Marsden Bay are predominantly locally generated and fetch limited.

The proposed reclamation crest is approximately RL 3.22 m NZVD. The Coastal Processes Assessment concludes that, based on the assessed extreme water levels and projected relative sea level rise, that crest elevation is not expected to be inundated within the next 100 years under either the SSP2-4.5 or SSP5-8.5 median projections. The reclamation structure is also assessed as resistant to erosion over the relevant assessment period, subject to maintenance.

On that basis, the Coastal Processes Assessment assesses the natural hazard risk associated with coastal inundation and erosion as low.

6.23.6 Tsunami

The wider Whangārei Harbour entrance is vulnerable to tsunami from distant and local sources. Tsunami events may generate elevated water levels, strong currents, scour, sediment movement and deposition within the harbour entrance, nearshore areas, ebb tide delta, lower harbour and navigation areas.

The Coastal Processes Assessment identifies that tsunami events could result in significant sediment movement in the existing environment, including scour in narrower parts of the inlet and deposition landward or seaward of the entrance. Following a significant tsunami event, inspection of channels, berth pockets, the port basin and navigation areas will likely be required irrespective of the Project, to confirm safe operation and determine whether maintenance dredging or repair works are required.

Project specific tsunami modelling has not been undertaken. However, the Project does not modify the narrowest part of the harbour entrance throat, which is the controlling feature for large scale tidal and tsunami response. On that basis, the Coastal Processes Assessment concludes that the Project is not expected to materially change the wider harbour response to tsunami.

The Coastal Processes Assessment concludes that the proposed development is not expected to materially change the wider harbour response to tsunami. While tsunami events remain a natural hazard within the existing harbour environment, the assessed tsunami risk for the proposed development is low.

6.23.7 Stormwater and drainage

The Project will introduce new hardstand, roof, access, parking and operational surfaces. These surfaces will generate stormwater runoff and will need to be designed to perform under both present day and future climate conditions.

Standard stormwater runoff will be collected and managed through the stormwater system, while higher risk operational washwater from vessel maintenance activities will be isolated from the standard stormwater network and directed to dedicated treatment, trade waste or another authorised disposal pathway.

Detailed design will confirm stormwater conveyance, storage, treatment, outlet arrangements, overland flow paths, backflow prevention, pump requirements, spill containment and resilience under elevated coastal water levels. The stormwater system will also need to integrate with the reclamation platform levels, hardstand gradients, operational washwater controls and Northport stormwater infrastructure.

6.23.8 Design response

The Project has been assessed on the basis of a concept design and defined design envelope. The Concept Design and Construction Report identifies that detailed design will confirm the final reclamation levels and the design of the revetments, quay walls, wharf structures and associated coastal infrastructure.

The Coastal Processes Assessment adopts a proposed reclamation deck level of approximately 5.0 m CD, equivalent to approximately RL 3.22 m NZVD, and assesses that level against projected extreme water levels and sea level rise.

Detailed design will also be informed by the shoreline, intertidal, subtidal and bathymetric monitoring recommended in the Coastal Processes Assessment and required through the EMMP and proposed conditions.

6.23.9 Conclusion

The Coastal Processes Assessment has considered coastal erosion, coastal inundation and tsunami risk, including future sea level rise, using the risk framework in the National Policy Statement for Natural Hazards.

The assessment concludes that the Project will have a minor erosion effect within Marsden Bay associated with slight sheltering and a small change in net wind-wave energy, and a negligible effect on water levels. The proposed reclamation crest level is not expected to be inundated within the next 100 years under the assessed median sea level rise projections, and the Project is not expected to materially change the wider harbour response to tsunami.

Overall, the Coastal Processes Assessment concludes that the expected effects of the Project on existing and future coastal hazards are negligible and that the natural hazard risks for the proposed development and the existing environment are low.

6.24 CUMULATIVE EFFECTS

6.24.1 Assessment approach

This section draws together the principal cumulative effects of the Project when considered alongside existing and consented activities in the receiving environment. It focuses on the matters that remain material at a project wide scale: marine

ecology, avifauna, marine mammals, coastal processes, landscape, natural character, amenity, recreation and public access, cultural values, and stormwater.

The topic specific assessments earlier in Section 6 identify the relevant effects by discipline, including where relevant, cumulative effects. This cumulative assessment brings those findings together for the overall effects conclusion in Section 6.25 and the statutory reconciliation in Section 7.

The assessment distinguishes between temporary construction effects, permanent localised effects, and residual effects that remain material to the overall planning judgement.

6.24.2 Existing and consented environment

The Project is proposed within an existing and consented marine industrial environment at Marsden Point. The cumulative effects context includes the existing Northport facility, existing reclamation, wharves, dredging and navigation channels, commercial shipping and tug movements, recreational boating, existing stormwater and industrial discharges, the CINZ facilities, Marsden Point industrial land, and associated transport infrastructure.

The cumulative effects context also includes consented but unimplemented works associated with Northport and Channel Infrastructure. Those consented works form part of the reasonably foreseeable environment and are relevant when considering the cumulative effects of further reclamation, dredging, marine structures, navigation activity, public access change and coastal edge modification.

At the same time, the Project is located adjacent to parts of Marsden Bay, Blacksmiths Creek and the lower Whangārei Harbour that retain important ecological, cultural, recreation, landscape, natural character, amenity and coastal process values. The cumulative effects assessment therefore recognises both aspects of the receiving environment: the modified marine industrial setting at Marsden Point, and the sensitive coastal values that remain within the surrounding harbour environment.

6.24.3 Key cumulative effects

The principal cumulative effects that arise in combination with other effects at a project wide scale are associated with further permanent coastal modification at the western edge of Northport. These effects encompass marine ecology, avifauna, cultural values, landscape, natural character, amenity, recreation and public access, and temporary underwater noise effects during construction.

The most important cumulative ecological effects relate to the permanent loss and modification of intertidal and subtidal habitat within Marsden Bay and the lower harbour. The Project will contribute to cumulative habitat loss and modification in an environment that has already been affected by existing and consented reclamation, dredging, coastal structures and port activity. These effects are particularly relevant where high value intertidal and subtidal habitat is affected within or adjacent to the One Tree Point to Marsden Bay Significant Ecological Area.

The cumulative effects on intertidal sediment habitat and macrofauna are assessed as high to very high. Cumulative effects on subtidal sediment habitat and benthic communities are assessed as high within the One Tree Point to Marsden Bay SEA and high to very high within Marsden Bay and the outer harbour and entrance zone.

Cumulative avifauna effects arise from the Project's contribution to the loss and disturbance of shorebird feeding, roosting and nesting habitat within the wider Marsden Bay / lower harbour environment. These effects are particularly relevant to northern New Zealand dotterel and other coastal bird species that use the harbour margins. The Project will add to existing and consented pressures on coastal bird habitat in the Marsden Bay / Blacksmiths Creek environment. Those effects will be managed through the AMP, predator control, monitoring and associated habitat-management measures. The future relocation of the Northport high tide roost is separately required under the Northport Eastern Expansion consents and forms part of the relevant cumulative receiving environment.

For kororā / little blue penguin, the cumulative issue is more specific. The Project may affect potential habitat associated with existing coastal structures, but the proposed Wildlife Act approval, KMP and associated survey, exclusion, relocation, monitoring

and reporting measures are intended to avoid injury or mortality and manage habitat related effects.

Cumulative marine mammal effects are primarily associated with temporary underwater noise during construction, particularly impact piling. Marine mammals using Whangārei Harbour and Te Ākau / Bream Bay are already exposed to anthropogenic underwater noise from port operations, commercial shipping, tug movements, recreational boating and other marine activities. The Project will add a temporary and intermittent construction noise source. Subject to the MMMP, acoustic validation, marine mammal observation zones, soft-start and ramp-up procedures, shutdown and delay requirements, daylight piling controls, reporting and review, hearing injury effects will be avoided. Temporary behavioural disturbance, acoustic masking or avoidance of parts of Whangārei Harbour may occur during piling periods.

The Project will also contribute to cumulative landscape, natural character and amenity effects by extending the existing marine industrial edge westward from Northport. At the broader harbour scale, the Project will be viewed in association with existing port and industrial development. At the more local Marsden Bay / Blacksmiths Creek interface, the cumulative change will be more apparent because the Project will reduce the existing separation between Northport and the more open coastal environment to the west. This localised change in coastal character, and associated amenity effects experienced from Marsden Bay Reserve and the Albany Road beachfront, is one of the more important cumulative effects of the Project.

Cumulative recreation and public access effects will arise during both construction and operation. During construction, public access will need to be restricted or managed for health and safety, security and construction reasons. During operation, the Project will change the way the public accesses and experiences the western edge of Northport and the adjoining coastal margin. The proposed public access route and replacement fishing platform will provide a managed access outcome and will retain the core shore based fishing opportunity. Overall, cumulative recreation effects are expected to be low to moderate at a local scale and no more than minor at the scale of the wider harbour.

Cumulative cultural effects are also relevant. Whangārei Harbour and Marsden Point are of cultural significance to mana whenua. The Project will contribute to cumulative modification of the CMA through reclamation, dredging, permanent occupation, ecological change, and further industrialisation of the harbour edge. These effects are relevant to tangata whenua relationships with the harbour, mahinga kai, customary use, whakapapa, historic occupation, kaitiakitanga and the mauri of the coastal environment.

In relation to stormwater and wastewater, the cumulative assessment includes the existing Northport facility, the consented Northport eastern expansion, the MMH stormwater system and the shared downstream outfall arrangement. The Project will add approximately 9.7 ha of stormwater catchment to the broader Northport stormwater management system. The Stormwater Assessment has considered the additional catchment in combination with the consented Northport expansion and concludes that the Northport pond has sufficient treatment and volumetric capacity, subject to required conveyance adaptations and operational controls. The principal cumulative issue is therefore the increased standard stormwater catchment load to the Northport system. High risk operational washwater and process runoff will be removed from the stormwater pathway and directed to trade waste or another authorised disposal pathway. On that basis, cumulative stormwater and water quality effects can be appropriately managed through detailed design, and internal management and monitoring.

Other cumulative effects, including traffic, terrestrial noise, air quality, navigation safety, archaeology, biosecurity and natural hazards, have been assessed in the relevant topic sections. Subject to the proposed design, management plans, monitoring and conditions, those effects are expected to be managed to acceptable levels and are not expected to materially alter the overall cumulative effects conclusion.

6.24.4 Effects managed through design and conditions

The location, design and proposed conditions materially reduce cumulative effects.

Locating the Project adjacent to Northport and the wider Marsden Point industrial environment consolidates a coastal dependent marine industrial activity in an already modified setting. This reduces the potential for comparable marine industrial effects to be dispersed into less modified or more sensitive coastal environments.

The reclamation footprint has been developed having regard to the functional and operational requirements of the Project. The Project requires direct access to navigable water, berthage, vessel manoeuvring areas, a vessel haul-out system, heavy load transfer areas, hardstand, containment and treatment systems, and associated marine industrial servicing areas. The scale of the reclamation is linked to those functional requirements.

The proposed conditions and management plan framework manage cumulative effects through certified management plans, construction controls, dredging, turbidity and marine ecology assurance monitoring and management, stormwater and washwater segregation and treatment, air quality controls, construction and operational noise controls, lighting controls, navigation safety procedures, traffic management, cultural monitoring, ecological management, avifauna management, kororā management, marine mammal management, public access controls, reporting, monitoring and review.

These measures will manage many cumulative effects. Residual cumulative effects will remain in relation to permanent marine habitat loss and modification, shorebird habitat loss and disturbance, localised landscape, natural character and amenity effects at the Marsden Bay / Blacksmiths Creek interface, and cultural effects associated with further modification and occupation of the CMA.

6.24.5 Overall cumulative effects conclusion

Overall, the Project will contribute to cumulative effects in the lower Whangārei Harbour and Marsden Point environment.

The principal residual cumulative effects relate to:

- (a) Permanent loss and modification of intertidal and subtidal habitat;

- (b) Effects on avifauna habitat, particularly shorebird foraging, roosting and nesting habitat and residual effects on northern New Zealand dotterel;
- (c) Localised landscape, natural character and amenity change at the Marsden Bay / Blacksmiths Creek interface;
- (d) Cumulative cultural effects associated with further reclamation, dredging, permanent occupation and modification of the CMA; and
- (e) Temporary behavioural disturbance to marine mammals during piling, subject to final confirmation from the marine mammal and underwater noise specialists.

Other cumulative effects, including traffic, terrestrial noise, air quality, water quality, navigation safety, archaeology, biosecurity and natural hazards, are expected to be managed through the proposed design, management plans, monitoring and conditions.

Some cumulative effects are expected to be low with management, while others remain important residual adverse effects that must be recognised in the overall effects conclusion and statutory reconciliation. In particular, the permanent ecological effects, avifauna effects, cumulative cultural effects and localised landscape, natural character and amenity change remain material to the overall assessment of the Project.

The Project will contribute to cumulative change in an already heavily modified marine industrial environment, while also affecting coastal values in Marsden Bay, Blacksmiths Creek and the lower Whangārei Harbour. Those residual cumulative effects are acknowledged and are addressed, to the extent practicable, through the proposed conditions, management plans, monitoring and other Project specific effects management measures, and are considered through the statutory reconciliation in Section 7.

6.25 OVERALL EFFECTS CONCLUSION

6.25.1 Overview

The Project will provide significant regional and national benefits but will also result in residual adverse effects, principally from permanent marine habitat loss and

modification, avifauna habitat loss and disturbance, localised landscape, natural character and amenity change, and cultural effects associated with further reclamation, dredging and occupation of the CMA.

Its functional and operational requirements necessitate direct access to deep navigable water and an integrated marine and land based working platform. Locating the Project beside Northport consolidates the activity within an established marine industrial setting but does not remove the need to recognise and assess the ecological, cultural, landscape, recreation and amenity values remaining within Marsden Bay, Blacksmiths Creek and the lower harbour.

Overall, the Project will result in a range of adverse effects. Many effects can be avoided, remedied or mitigated through location, design, construction methodology, management plans, monitoring and consent conditions. However, some residual adverse effects will remain and these have been considered in the overall assessment and statutory reconciliation in Section 7.

6.25.2 Effects avoided or managed through location, design and conditions

A number of effects have been avoided or reduced through the selection of a location adjoining the existing Northport facility and the wider Marsden Point industrial environment. This location enables a coastal dependent marine industrial activity to be consolidated within an already modified port edge setting, rather than introducing comparable activities into a less modified coastal environment.

The design of the Project has also sought to limit the extent of reclamation and permanent occupation of the CMA to that required to meet the Project's functional and operational needs. The proposed reclamation, dredging, wharf structures, vessel haul-out system, access, hardstand, stormwater systems and servicing areas have been developed to provide the operational area and marine interface necessary for the shipyard and drydock facility.

Construction effects will be managed through construction methodology controls, certified management plans, site management procedures, monitoring and response requirements, and specific controls addressing dredging, reclamation,

turbidity, decant water discharges, construction noise, air quality, traffic, hazardous substances, spills, accidental discovery, public access and communication.

The Coastal Processes Assessment concludes that the wider coastal process effects of the Project will be limited. Effects on waves and shoreline change within Marsden Bay are assessed as minor, effects on currents and sediment transport are low to minor, and effects on water levels and the wider harbour are nil to negligible. The expected effects of the Project on existing and future coastal hazards are assessed as negligible, with the natural hazard risks for the proposed development and existing environment assessed as low.

Stormwater, operational washwater and wastewater effects will be managed through the separation of standard stormwater from high risk operational runoff, pre-treatment of standard stormwater before discharge to the Northport stormwater system, and containment and diversion of high risk operational runoff to the WDC wastewater network under trade waste approval or another authorised disposal pathway. The detailed operational controls, monitoring and maintenance requirements will be implemented through the certified SMP.

Operational air quality, terrestrial noise, vibration and lighting effects are also proposed to be managed through design controls, activity controls, monitoring, complaints procedures and certified management plans. Operational noise is expected to comply with relevant limits, subject to the proposed controls, including specific management of higher noise surface preparation activities. Lighting effects will be managed through lighting design, orientation, shielding and operational controls.

The Navigation Safety Assessment concludes that the facility is navigationally workable within defined operational windows. Operational navigation safety will be managed through the certified NSMP, including the vessel and environmental operating limits, tug and pilotage requirements, manoeuvring controls and communication procedures identified in that assessment.

Archaeological effects are expected to be low, subject to accidental discovery protocols and compliance with the Heritage New Zealand Pouhere Taonga Act 2014.

Biosecurity risks will be managed through biosecurity management procedures for construction and operation. Effects on natural hazards and climate change resilience have been addressed through design levels, engineering response and recognition of the long-life nature of the infrastructure.

The proposed management plan and condition framework is therefore central to the overall effects assessment. That framework includes, among other matters, the CEMP, CEMP, DMP and SMP, AQMP, NMP, OLMP, NSMP, AMP, KMP, MMMP, cultural monitoring and tangata whenua involvement, public access controls, reporting, monitoring and review conditions.

6.25.3 Residual adverse effects

The principal residual adverse effects are associated with permanent marine habitat loss and modification, avifauna habitat loss and disturbance, temporary underwater noise effects on marine mammals during construction, localised landscape, natural character and amenity effects, public access change, and cultural effects associated with further modification of the harbour edge.

The most significant residual effects relate to the permanent loss and modification of intertidal and subtidal marine habitat within Marsden Bay and the lower Whangārei Harbour. The Project will result in permanent occupation of parts of the CMA through reclamation, together with dredging, berth pocket formation, wharf structures and associated marine works. These effects are particularly important where high value intertidal and subtidal habitat is affected within or adjacent to the One Tree Point to Marsden Bay Significant Ecological Area.

Dredging will also result in longer term modification of benthic communities within the dredged basin. Although recolonisation will occur, the resulting communities are expected to have lower abundance, diversity and productivity because of reduced currents, reduced light and the potential loss of shell-gravel substrate. This is distinct from temporary off-site sediment plume effects, for which ecological recovery is expected to occur more rapidly.

Residual avifauna effects will also remain. The Project will contribute to the loss and disturbance of shorebird feeding, roosting and nesting habitat within the Marsden

Bay / lower harbour environment. These effects are particularly relevant to northern New Zealand dotterel and other coastal bird species that use the harbour margins. The AMP, monitoring, predator control and associated habitat management measures will manage and reduce those effects but will not fully avoid the identified residual effects. The additional ecological and cultural enhancement contribution described in Section 6.25.4 will support wider harbour initiatives but is not relied on as a formal biodiversity offset or as compensation required to address the assessed dotterel effect.

Kororā / little blue penguin effects are addressed through the proposed Wildlife Act approval and the KMP. The principal concern is the potential for works to affect habitat associated with existing coastal structures and the associated risk of disturbance, injury or mortality if unmanaged. Subject to the proposed survey, exclusion, relocation, accidental discovery, monitoring and reporting requirements, those effects are expected to be appropriately managed. Kororā effects are therefore not identified as one of the principal residual adverse effects, but remain relevant to the overall effects management framework.

Marine mammal effects are primarily associated with underwater noise during construction, particularly impact piling. The proposed MMMP, acoustic validation, marine mammal observation zones, soft-start and ramp-up procedures, shutdown and delay requirements, daylight piling controls, reporting and review requirements are intended to avoid hearing injury effects. Temporary behavioural disturbance, acoustic masking or avoidance of parts of Whangārei Harbour may occur during piling periods. The scale and significance of any residual behavioural effect will depend on the final piling methodology, acoustic validation and implementation of the certified MMMP.

The Project will also result in localised landscape, natural character and amenity effects at the Marsden Bay / Blacksmiths Creek interface. At the broader harbour scale, the Project will be viewed in association with existing port and industrial development. Locally, however, the Project will extend the marine industrial edge westward from Northport and reduce the existing separation between port activity and the more open coastal environment to the west. This change will be experienced

most directly from Marsden Bay Reserve, the Albany Road beachfront, Blacksmiths Creek and nearby public access areas.

Recreation and public access effects will arise during both construction and operation. Construction will require temporary restrictions or management of public access for health and safety, security and construction reasons. During operation, the Project will change the way the public accesses and experiences the western edge of Northport and the adjoining coastal margin. The proposed public access route and replacement fishing platform will retain a managed public access and fishing opportunity, but the existing informal coastal edge experience will change.

Cultural effects are also a material residual matter. Whangārei Harbour and Marsden Point are of cultural significance to mana whenua. The Project will contribute to further reclamation, dredging, permanent occupation, ecological change and modification of the CMA. These effects are relevant to tangata whenua relationships with the harbour, mahinga kai, customary use, whakapapa, historic occupation, kaitiakitanga and the mauri of the coastal environment. The proposed cultural condition framework identifies mechanisms for tangata whenua involvement, cultural monitoring, input into relevant management plans, reporting and accidental discovery procedures, with the detailed form of those mechanisms to be informed by ongoing engagement.

The cumulative effects assessment in Section 6.24 also identifies that the Project will contribute to cumulative coastal modification at the western edge of Northport. The most important cumulative effects relate to permanent marine habitat loss and modification, avifauna habitat loss and disturbance, localised landscape, natural character and amenity change, cumulative cultural effects, and temporary behavioural disturbance to marine mammals during piling.

6.25.4 Ecological and cultural enhancement contribution

The preceding assessment identifies the measures proposed to avoid, remedy, mitigate and otherwise manage the Project's ecological effects. Notwithstanding those measures, residual effects will remain, principally because the reclamation and associated marine works will permanently occupy and modify intertidal and

subtidal habitat and will result in a moderate residual adverse effect on northern New Zealand dotterel.

The applicable policy framework does not require biodiversity offsetting or compensation for the effects assessed in this application. The affected marine ecological habitat within the coastal marine area is principally addressed under the NZCPS and the Northland regional planning instruments rather than the NPS-IB, except in relation to highly mobile fauna species (addressed in Section 7.4 below). Accordingly, the applicable policy framework does not require biodiversity offsetting or compensation in response to those residual effects.

The permanent loss of seabed and intertidal habitat cannot practicably be replaced on a like-for-like basis, and the available information does not provide a robust basis for claiming that an equivalent ecological gain, or a no-net-loss outcome, will be achieved elsewhere. MBIE nevertheless proposes an ecological and cultural enhancement contribution as an additional and voluntary measure. The contribution is intended to support ecological protection, restoration, enhancement, monitoring, education or related cultural initiatives associated with the coastal marine area in and around Whangārei Harbour. It recognises that the ecological health of the harbour is closely connected with its cultural values and that initiatives supported through the contribution may assist in addressing broader ecological and cultural concerns associated with the harbour environment.

The contribution is additional to the Project specific avoidance, mitigation, monitoring and management measures secured through the proposed conditions.

The proposed condition is included with the proposed NRC conditions at **Appendix 7**.

6.25.5 Overall conclusion

The Project will have substantial positive economic, infrastructure, transport resilience and maritime strategic capability effects, together with wider enabling benefits for the maritime sector and regional workforce and supplier capability. It will also result in residual adverse effects associated principally with permanent marine habitat loss, effects on northern New Zealand dotterel, temporary underwater noise

effects, landscape and amenity change, and further cultural modification of the CMA.

Most other effects can be avoided or reduced through the Project design and proposed conditions. The residual effects identified above cannot be fully avoided without preventing the reclamation, dredging and marine infrastructure necessary for the Project.

The acceptability of those residual effects, having regard to the Project's benefits and the applicable statutory framework, is addressed in Section 7.

7. RESOURCE CONSENT ASSESSMENT

7.1 OVERVIEW AND STATUTORY APPROACH

This section assesses the resource consent approvals sought for the Project against the applicable statutory planning framework. It should be read with the assessment of environmental effects in Section 6 and the detailed provision by provision assessment in **Appendix 33**.

The Project is a listed project in Schedule 2 of the FTAA. For the resource consent approvals, Schedule 5, clause 17 requires the Panel to take into account the relevant matters specified in that clause and to give the greatest weight to the purpose of the FTAA. The purpose of the FTAA is *“to facilitate the delivery of infrastructure and development projects with significant regional or national benefits”*. The Project’s listing and its assessed benefits are therefore material to the decision-making framework.

The statutory framework contains strong enabling direction for the Project. It also contains directive provisions aimed at protecting (or avoiding effects on) indigenous biodiversity, natural character, landscape, cultural values, public access, water quality and other coastal values.

7.2 INFRASTRUCTURE AND REGIONALLY SIGNIFICANT INFRASTRUCTURE PROVISIONS

7.2.1 National Policy Statement for Infrastructure

The NPS-I requires the national, regional and local benefits of infrastructure to be recognised and provided for, and its functional and operational needs to be taken into account. It also requires decision makers to have regard to site and method selection, technical and operational constraints, the extent to which adverse effects have been avoided, remedied or mitigated, and the efficient and timely delivery and use of infrastructure.

The Project’s regional and national benefits are assessed in Sections 2.4 and 6.3 and in the Economic Impact Assessment at **Appendix 10** and the Regional and National Public-Interest Benefits Report at **Appendix 36**. The strongest wider public interest

benefits relevant to this statutory assessment are the reduction in offshore servicing dependency, improved control over vessel maintenance and return-to-service, strengthened transport and maritime resilience, and increased domestic capability and optionality to support strategically important vessels. Those benefits are directly relevant to the NPS-I and the purpose of the FTAA.

The Project's need for direct access to deep navigable water and an integrated land-water operational platform is addressed in Sections 2.5 and 4 of this substantive application. The alternatives, design response and measures adopted to manage effects are addressed in Sections 4 and 6.

Overall, the NPS-I provides strong enabling direction for the Project.

7.2.2 RPS and RPN infrastructure provisions

The RPS and RPN recognise the regional importance and benefits of RSI and the locational and operational constraints that can apply to it. RPN Policy D.2.9 provides the principal RPN framework for determining the appropriateness of RSI, including through the consideration of benefits, national direction (NPS-I), demonstrable functional need, any operational, technical or location constraints that limit the design and location of the activity, including any alternatives that have been considered which have proven to be impractical, or have greater adverse effect, technical constraints, and effects management, together with any positive effects and any environmental offset or compensation measures that are proposed.

The Project is assessed against Policy D.2.9 in Section 7.6.2. The infrastructure and RSI provisions provide material support for the Project.

7.3 NEW ZEALAND COASTAL POLICY STATEMENT

7.3.1 Overall direction

The NZCPS applies because most of the works and their principal effects are within the coastal environment. The relevant objectives and policies are assessed in detail in **Appendix 33**. The principal matters for this assessment are indigenous biodiversity, activities with a functional need for a coastal location, reclamation, natural

character, natural features and landscapes, tangata whenua values, public access, water quality, sedimentation and coastal hazards.

Objective 1 seeks to safeguard the integrity, form, functioning and resilience of the coastal environment. Objective 6 recognises that protection of coastal values does not preclude appropriate use and development in appropriate places, forms and limits, and that some activities depend on the use of natural and physical resources in the coastal environment.

Policy 6 recognises the contribution that infrastructure and the use and development of the CMA can make to the social, economic and cultural wellbeing of people and communities. It recognises that some activities have a functional need to locate in the CMA and directs that provision be made for those activities in appropriate places. For infrastructure, these provisions also apply where there is an operational need to locate in the CMA. Policy 6 also promotes the efficient use of occupied space within the CMA.

Policy 10 directs reclamation to be avoided unless there are no practicable alternative methods of providing the activity and the reclamation will provide significant regional or national benefit. The assessment in Sections 2.5, 4.2 and 6.5 establishes the operational need for the reclamation and the absence of any practicable alternative method. The Project will also provide significant regional and national benefits. On the basis of those assessments, the Project satisfies the requirements of Policy 10.

7.3.2 Policy 11 and indigenous biodiversity

For the purposes of Policy 11, “avoid” bears its ordinary meaning of “not allow” or “prevent the occurrence of”. The inquiry is directed to the subject matter protected by the particular provision and whether material adverse harm to that taxon, ecosystem or habitat is avoided. Measures that mitigate or remedy effects may contribute to achieving an avoidance outcome where they prevent material harm

from occurring, but they do not provide a basis for balancing material harm against the benefits of the activity.¹⁰

The Project is not in full alignment with Policy 11 because reclamation and dredging will permanently remove or modify intertidal and subtidal habitat with significant ecological values. Those habitat effects principally engage Policy 11(b), including the provisions applying to intertidal zones and other vulnerable coastal habitats.

Northern New Zealand dotterel is a threatened taxon for the purposes of Policy 11(a)(i). The Coastal Avifauna Assessment identifies a moderate overall residual ecological effect arising principally from permanent loss of some intertidal foraging habitat and temporary disturbance and displacement. Subject to the proposed management measures, injury and mortality will be avoided. The assessment does not identify effects that will materially affect breeding success, recruitment, local population viability, the species' natural range or the persistence of the taxon.

On the basis of those technical conclusions, the Project is not expected to result in material harm to the northern New Zealand dotterel taxon. The avoidance outcome in Policy 11(a)(i) is therefore assessed as achieved in relation to that taxon, notwithstanding the moderate ecological effect rating and the permanent loss of habitat used by individual birds.

The remaining Policy 11 tension concerns the permanent effects on the intertidal and subtidal ecosystems and habitats addressed under Policy 11(b). The nature and consequence of those effects and the other statutory directions are addressed in Section 7.7.

7.3.3 Policies 13 and 15

Policy 13 requires the natural character of the coastal environment to be preserved and protected from inappropriate subdivision, use and development. The Project is not within an area identified as having outstanding natural character. Policy 13(1)(b)

¹⁰ *Port Otago Ltd v Environmental Defence Society Inc* [2023] NZSC 112 at [64]–[68]; *Royal Forest and Bird Protection Society of New Zealand Inc v New Zealand Transport Agency* [2024] NZSC 26 at [228].

nevertheless requires significant adverse effects on natural character in other areas to be avoided and other adverse effects to be avoided, remedied or mitigated.

The Landscape, Natural Character and Visual Effects Assessment identifies moderate to moderate-high natural character effects in the most affected local receiving environments. It does not identify an overall significant adverse effect on natural character in the context of Policy 13(1)(b).

Policy 15 requires adverse effects on outstanding natural features and outstanding natural landscapes to be avoided, significant adverse effects on other natural features and natural landscapes to be avoided, and other adverse effects to be avoided, remedied or mitigated. The Project footprint is not within an identified outstanding natural feature or outstanding natural landscape.

The Landscape Assessment identifies high landscape effects at Marsden Bay Reserve and the Albany Road beachfront. Those ratings describe significant localised effects within those receiving environments. As set out in Section 6.14 of this substantive application, these localised effects are distinguished from the Project's effects at the wider harbour landscape scale. At that broader scale, the Project will generally be seen as an extension of the established Northport and Channel Infrastructure NZ maritime industrial setting. At this scale, the Landscape Assessment classifies these effects are generally low to very low, and it concludes that the wider landscape structure and identity of Whangārei Harbour will remain legible.

On that basis, the local high ratings are not assessed as significant adverse effects on a natural feature or natural landscape considered at the relevant landscape scale in the context of Policy 15. They nevertheless remain appreciable adverse landscape effects that engage the requirement to avoid, remedy or mitigate other adverse effects and must be given appropriate weight in the overall assessment.

7.3.4 Other relevant NZCPS provisions

Policies 2 and 4 require recognition of tangata whenua relationships, integrated management and engagement. Whangārei Harbour and Marsden Point are culturally significant, and the Project will contribute to further reclamation, dredging

and ecological change. The relevant effects and proposed responses are assessed in Sections 2.7, 3.2 and 6.19 and in the proposed conditions.

Policy 9 recognises the importance of an efficient national network of safe ports and requires development in the coastal environment not to adversely affect the efficient and safe operation of those ports or their connections with other transport modes. Although the Project is not itself a port development, its location adjoining Northport and its relationship with the established maritime and transport infrastructure make Policy 9 relevant. The navigation, traffic, access and operational assessments conclude that the Project can operate without compromising the safe and efficient operation of Northport or its transport connections.

Policies 18 and 19 recognise public open space and walking access. Construction and operation will alter existing coastal access and recreation patterns. The Project provides for managed public access around the western edge of the reclamation and a replacement fishing platform, subject to necessary health, safety, security and operational restrictions.

Policies 21 to 23 address water quality, sedimentation and contaminant discharges. The relevant effects and management measures are assessed in Sections 6.6, 6.11 and 6.12 and are secured through the proposed conditions and management plans.

7.4 NATIONAL POLICY STATEMENT FOR INDIGENOUS BIODIVERSITY

The NPS-IB generally applies to indigenous biodiversity in the terrestrial environment. The definition of terrestrial environment excludes the coastal marine area. The Project's principal intertidal and subtidal ecological effects are therefore addressed under the NZCPS, RPS and RPN rather than the NPS-IB significant natural area regime.

The NPS-IB has specific relevance to specified "*highly mobile fauna*". Northern New Zealand dotterel is listed in Appendix 2 of the NPS-IB as highly mobile fauna. Policy 15 and clause 3.20 seek identification and management of areas outside significant natural areas that support specified highly mobile fauna so their populations are maintained across their natural ranges.

The Coastal Avifauna Assessment assesses the overall residual effect on northern New Zealand dotterel as moderate. The Project is not expected to threaten the

viability of the species across its natural range. The moderate ecological effect rating principally reflects habitat loss and disturbance. The assessment does not identify material adverse harm to the taxon or an effect that would compromise maintenance of the relevant population across its natural range.

As confirmed in the Avifauna Assessment, the effect on northern New Zealand dotterel has been assessed as moderate: below the significant adverse effect 'threshold' for the purposes of clause 3.16 and does not therefore require a biodiversity offset or compensation response under the NPS-IB. The moderate effect on dotterel must be managed to give effect to the objective and relevant policies of the NPS-IB, including Policy 8 concerning indigenous biodiversity outside significant natural areas and Policy 15 and clause 3.20 concerning specified highly mobile fauna. The Project design, AMP and proposed conditions include measures to avoid injury and mortality and to minimise disturbance, displacement, lighting and pollution effects. On that basis, the Project is assessed as appropriately managing effects on indigenous avifauna and will not compromise the maintenance of northern New Zealand dotterel or other specified highly mobile fauna across their natural ranges. Notwithstanding this, MBIE is proposing the ecological and cultural enhancement contribution described in Section 6.25.4, including to acknowledge residual and cumulative effects on avifauna.

7.5 REGIONAL POLICY STATEMENT FOR NORTHLAND

The RPS provides the regional strategic framework for the Project. It recognises the importance of infrastructure and RSI to Northland's social and economic wellbeing and the efficient use and development of natural and physical resources. It also contains direction for indigenous biodiversity, the coastal environment, natural character, landscapes, tangata whenua values, water quality, hazards and integrated management.

The Project accords with the RPS direction supporting efficient and consolidated development of infrastructure in locations suited to its function.

The protective provisions remain fully engaged. The Project will affect intertidal and subtidal habitat, including habitat used by threatened coastal avifauna, together with cultural values, local natural character, landscape and public access.

Regarding the RPS natural character and landscape provisions, the Project is outside identified outstanding areas. Its local landscape and natural character effects remain relevant, but the Project will not materially affect the values or integrity of the mapped outstanding natural landscapes and outstanding natural character areas within the wider harbour setting.

7.6 REGIONAL PLAN FOR NORTHLAND AND WHANGĀREI DISTRICT PLAN

7.6.1 Spatial planning context

The regional planning context contains two important and overlapping zones/overlays. Almost all the marine components of the Project are within the MPPZ, the specific purpose of which is to provide for maritime related commercial and industrial activity. Parts of the Project footprint, including areas affected by reclamation and the relocated bird roost, also extend into the One Tree Point to Marsden Bay SEA. The RPN assessment must therefore address both the enabling direction associated with the MPPZ and the protective provisions applying to the affected significant ecological values.

7.6.2 RPN Policy D.2.9

Policy D.2.9 requires an integrated assessment of the appropriateness of RSI, including the benefits of the activity, recognition in national direction, functional need, site and method selection, operational and technical constraints, alternatives, the practicability of effects management, monitoring and response measures, consolidated development and efficient use of land and resources.

The Project's benefits are significant and include economic benefits together with reduced offshore servicing dependency, improved maritime and transport resilience, and strengthened domestic vessel maintenance capability. The Project is also recognised and provided for by the NPS-I.

The functional need for a coastal marine area location is established in Sections 2.5 and 4 of this substantive application. The alternatives assessment has considered the location, form and principal methods of providing the activity. The selected location avoids establishing a new marine industrial node and makes use of a modified and serviced setting beside Northport.

Adverse effects have been reduced through site and footprint selection, suspended structures where practicable, design refinement, construction staging and methodology, containment and source separation systems, management plans, monitoring and proposed conditions. Permanent habitat loss within the reclamation footprint cannot be avoided without materially defeating the function of the facility.

The effects that can be managed through operational controls, thresholds, monitoring and response requirements are addressed through the proposed conditions and management plans.

The Project will achieve consolidated development and efficient use of land and resources, including within the coastal marine area. These matters provide strong support under Policy D.2.9, while the residual ecological and local landscape effects retain their appropriate weight.

7.6.3 RPN Policies D.2.18, D.5.8 and D.5.9

RPN Policy D.2.18 requires adverse effects on threatened or at-risk indigenous taxa and on specified significant indigenous biodiversity values in the coastal environment to be avoided. It also requires significant adverse effects to be avoided on particularly vulnerable ecosystems and habitats.

The Project is not in full alignment with Policy D.2.18 because of the permanent loss and modification of significant intertidal and subtidal habitat, including effects on vulnerable coastal habitats and the values and characteristics of the One Tree Point to Marsden Bay SEA.

Northern New Zealand dotterel is a threatened taxon to which the avoidance direction in Policy D.2.18 applies. The Coastal Avifauna Assessment identifies a moderate overall residual ecological effect associated principally with habitat loss and temporary disturbance. Subject to the proposed measures, injury and mortality

will be avoided, and the Project is not expected to materially affect breeding success, recruitment, local population viability, the species' natural range or the persistence of the taxon. On that basis, the Project is assessed as avoiding material adverse harm to the northern New Zealand dotterel taxon for the purposes of Policy D.2.18.

Policy D.2.18 requires a system-wide approach for large areas of indigenous biodiversity and attention to irreversible and cumulative effects. The marine ecology and avifauna assessments apply wider Marsden Bay, SEA and harbour scales. That wider context is relevant to the magnitude and consequence of the effects. Having regard to that context and the permanent habitat effects within the Project footprint, the avoidance outcomes applying to the affected intertidal and subtidal habitats are not fully achieved.

The design, location, timing and ecological management methods identified in Policy D.2.18 are reflected in the Project design, AMP and proposed conditions.

Policy D.5.8 recognises that the purpose of the MPPZ is to enable development and operation of existing and authorised maritime related commercial enterprises or industrial activities within the zone. Policy D.5.9 states that development in the MPPZ "will generally be appropriate" where it is consistent with existing or anticipated adjoining development or associated with RSI.

Almost all of the marine component of the Project is within the MPPZ. The Project is a maritime related industrial activity and RSI that is complementary to Northport and the wider Marsden Point industrial environment, and represents efficient consolidation or co-location of infrastructure. The zone and Policies D.5.8 and D.5.9 provide a specific spatial signal that this part of the coastal marine area is appropriate for maritime related industrial development, subject to the other applicable effects management and protective provisions.

7.6.4 Other RPN provisions

The reclamation provisions require a demonstrated need for reclamation, consideration of practicable alternatives, efficient use of coastal marine area space and management of ecological, cultural, public access, natural character,

landscape and coastal process effects. Those matters are assessed in Sections 4.2, 6.5 and 6.6.

The dredging, disturbance and deposition provisions are addressed through the functional need for safe vessel access and manoeuvring, the proposed dredging methodology and staging, reuse of dredged material, plume modelling, turbidity monitoring, response triggers and maintenance dredging controls.

The water quality and discharge provisions are addressed through separation of standard stormwater from high risk process water, pre-treatment, containment, capture, diversion to trade waste or another authorised pathway, monitoring and shut-off controls.

The RPN provisions for tangata whenua values, public access, natural character, landscapes, underwater noise, marine mammals and coastal hazards are addressed in the relevant parts of Section 6 and through the proposed conditions.

7.6.5 Whangārei District Plan

The Whangārei District Plan applies principally to the land-based access, parking, buildings, servicing and operational components above mean high water springs. The relevant provisions are assessed in **Appendix 33**.

Traffic, access, parking, noise, lighting, construction effects, stormwater, hazardous substances and natural hazards have been assessed. The proposed design, management plans and conditions provide an appropriate response to the relevant district plan provisions. The limited access and parking interface with the Port Zone will not compromise the safe and efficient operation of Northport.

7.7 ASSESSMENT AGAINST SECTIONS 5, 6 AND 7 OF THE RMA, 1991

7.7.1 Statutory context

Schedule 5, clause 5(1)(g) of the FTAA requires an assessment of the activity against sections 5, 6 and 7 of the RMA. Those provisions comprise the purpose of the RMA, the matters of national importance that must be recognised and provided for, and the other matters to which particular regard must be had.

This assessment should be read together with the detailed assessment of environmental effects in Section 6 and the assessment of the relevant national, regional and district planning instruments in the preceding parts of this section. Those assessments provide the factual and policy basis for the conclusions below.

The assessment under sections 5, 6 and 7 is undertaken on its own terms. It nevertheless forms part of the wider decision-making framework established by the FTAA. As addressed in Section 5.8, when determining the resource consent applications the Panel is required to take into account the relevant RMA matters while giving the greatest weight to the purpose of the FTAA.

7.7.2 Section 5 – Purpose

Section 5 of the RMA states the purpose of the Act is to promote the sustainable management of natural and physical resources. Sustainable management encompasses enabling people and communities to provide for their social, economic and cultural wellbeing and for their health and safety, while sustaining the potential of natural and physical resources to meet the reasonably foreseeable needs of future generations, safeguarding the life-supporting capacity of air, water, soil and ecosystems, and avoiding, remedying or mitigating adverse effects on the environment.

The Project has a substantial enabling component. It will establish purpose built marine maintenance and repair infrastructure capable of servicing large commercial, specialist and naval vessels within New Zealand. As assessed in Sections 2.4 and 6.3, the Project will provide significant regional and national economic benefits through capital investment, employment, household income and associated economic activity. It will also reduce New Zealand's reliance on offshore heavy marine maintenance facilities, improve domestic control over vessel maintenance and return-to-service, strengthen transport and supply chain resilience, and increase domestic maritime strategic capability and optionality. These effects contribute directly to the ability of people and communities to provide for their economic and social wellbeing and, through improved resilience and infrastructure capability, their health and safety.

The Project's location and form are material to that enabling function. A shipyard capable of servicing large vessels requires direct access to deep navigable water and an integrated land and water based operational platform. Marsden Point provides those characteristics adjacent to existing port, navigation, transport and marine industrial infrastructure. Most of the marine component of the Project is also within the MPPZ, which specifically provides for maritime related commercial and industrial development. The location therefore enables the Project to make use of an established maritime industrial setting and existing physical resources rather than establishing comparable infrastructure in an unrelated coastal location. The NPS-I and the regional RSI provisions separately recognise those functional, operational and infrastructure considerations, as addressed in Sections 7.2 and 7.6.

The Project will use and permanently modify natural resources within the coastal environment. Approximately 9.7 ha of reclamation, together with dredging and associated marine structures, will permanently occupy or modify intertidal and subtidal habitat. The affected environment includes part of the One Tree Point to Marsden Bay SEA and high value marine ecological habitat. The Project will also result in residual effects on Northern New Zealand dotterel associated principally with permanent loss of foraging habitat and disturbance, localised landscape, natural character and amenity change, and cultural effects associated with further reclamation, dredging and modification of Whangārei Harbour. Temporary underwater noise effects on marine mammals will also occur during construction. These effects are not removed by the substantial benefits of the Project and remain relevant to the sustainable management assessment.

The Project has been designed and assessed with particular regard to the qualifications in section 5(2). The location alongside Northport consolidates the activity within an established maritime industrial environment. The reclamation footprint has been limited to that required to accommodate the integrated operational platform; dredged material will be beneficially reused as reclamation fill; suspended structures are used where practicable; and the construction and operational design incorporates source separation, containment, treatment and discharge controls. A comprehensive suite of consent conditions and management

plans will address dredging, turbidity, marine mammals, avifauna, biosecurity, stormwater and washwater, air quality, terrestrial noise, lighting, traffic, navigation, monitoring and incident response. These measures materially reduce the nature, scale and duration of the adverse effects that can practicably be managed.

The life supporting capacity of air, water and ecosystems is particularly relevant given the coastal location. The stormwater and washwater framework separates higher risk operational runoff from standard stormwater and provides for containment, treatment and authorised disposal. Air discharges associated with vessel maintenance will be subject to activity specific containment and management controls. Construction sediment, turbidity and underwater noise effects will likewise be subject to monitoring and response requirements. The technical assessments conclude that the wider coastal process effects will be limited and that the Project will not materially alter the functioning of the lower harbour, harbour entrance or wider coastal system.

Not all adverse effects can, however, be avoided, remedied or fully mitigated. In particular, permanent intertidal and subtidal habitat occupied or modified by reclamation and dredging will not be restored through the proposed management measures. The assessment also identifies residual adverse effects on Northern New Zealand dotterel, local landscape and natural character values, and cultural values.

Considered as a whole, the Project will enable substantial social and economic wellbeing and provide significant infrastructure, resilience and strategic benefits from a location that is particularly suited to its functional and operational requirements. At the same time, the Project has been designed to avoid or reduce adverse effects where practicable and to manage the remaining effects through enforceable conditions. While material residual effects remain, particularly in relation to marine habitat, the combination of the Project's enabling benefits, its functional and operational requirements, its location within an established and specifically planned maritime industrial environment, and the measures incorporated to manage adverse effects supports the conclusion that the Project is consistent with the sustainable management purpose in section 5.

7.7.3 Section 6 – Matters of National Importance

The Project engages a number of the matters of national importance in section 6 because of its location within the coastal environment and its effects on ecological, landscape, public access and cultural values. Those matters are addressed below to the extent relevant to the Project.

Section 6(a) – natural character of the coastal environment

The Project is located within the coastal environment and will result in permanent physical change through reclamation, dredging, marine structures and the extension of the existing developed coastal edge west of Northport.

The Project site is not within an area identified as having outstanding natural character. The receiving environment is modified, including by existing reclamation, dredging, navigation infrastructure and other maritime industrial activity. At the wider harbour scale, the Project will generally be experienced in association with that established environment.

That context does not remove the natural character values of the adjoining coastal environment. Marsden Bay and Blacksmiths Creek provide a transition from the working port edge to more open coastal and recreational environments. The Landscape Assessment identifies moderate to moderate high natural character effects in the most affected local receiving environments. The Project will therefore result in an appreciable local reduction in natural character notwithstanding its relationship with the existing port.

Those effects have been reduced through locating the Project immediately beside Northport, limiting the Project footprint to the extent practicable, incorporating suspended marine structures where practicable, providing coastal edge landscape treatment and managing lighting and other operational effects. The Project accordingly recognises the natural character values of the coastal environment and provides for their protection to the extent practicable in the context of infrastructure that has a functional and operational requirement for a coastal location. Residual local natural character effects nevertheless remain and form part of the overall statutory assessment.

Section 6(b) – outstanding natural features and landscapes

The Project footprint is not located within an Outstanding Natural Feature or Outstanding Natural Landscape. Outstanding landscapes and other high value landscape areas are, however, present within the wider Whangārei Harbour receiving environment, particularly in association with Whangārei Heads.

The Landscape Assessment distinguishes effects at the wider harbour scale from effects within the more sensitive local receiving environment. At the wider harbour scale the Project will be viewed in association with the existing Northport and Marsden Point industrial environment. The more substantial effects occur locally at Marsden Bay Reserve and the Albany Road beachfront, where the Project will materially extend the existing working port edge westward. The assessment identifies high landscape effects at those local viewpoints.

The Project does not directly occupy or modify an identified outstanding landscape or feature. Its effects on the wider outstanding landscape setting are moderated by distance, the existing port and industrial context and the relationship of the Project to that development. The relevant outstanding natural features and landscapes have therefore been recognised and provided for in the Project assessment and design, while the identified localised landscape effects remain relevant to the overall evaluation.

Section 6(c) – significant indigenous vegetation and significant habitats of indigenous fauna

The Project overlaps part of the One Tree Point to Marsden Bay SEA and will permanently remove or modify intertidal and subtidal habitats with significant ecological values. Those habitats support diverse benthic communities, shellfish, seagrass, fish and shorebird feeding functions. The Project area is also used by Threatened and At-Risk coastal birds, including Northern New Zealand dotterel. Marine mammals, including threatened species, may use Whangārei Harbour and the wider coastal environment.

The marine habitat effects cannot be completely avoided while providing the reclamation, vessel access, berthage and associated infrastructure required for the

Project. They have been reduced through site and method selection, refinement of the footprint, use of suspended structures where practicable, construction methodology and specific controls addressing sediment, turbidity, water quality and operational discharges. Those measures do not, however, restore the intertidal and subtidal habitat that will be permanently occupied or modified.

Northern New Zealand dotterel is a threatened taxon. The Coastal Avifauna Assessment identifies a moderate residual ecological effect arising principally from habitat loss and temporary disturbance and displacement. Subject to the proposed AMP and associated conditions, direct injury and mortality will be avoided, and the assessment does not identify effects that will materially affect breeding success, recruitment, local population viability, natural range or persistence of the taxon. The assessment therefore distinguishes between the residual ecological effect on individual birds and habitat, and material harm to the taxon itself.

Potential effects on marine mammals are principally associated with underwater construction noise. The proposed MMMP, piling controls, observation zones, shutdown requirements and acoustic verification are intended to avoid permanent or temporary hearing injury, with residual effects principally comprising temporary behavioural disturbance and avoidance during periods of construction.

The Project therefore recognises and provides for the significant indigenous ecological values affected by the works through detailed identification of those values, avoidance and minimisation where practicable, and specific management and monitoring requirements.

Section 6(d) – public access to and along the coastal marine area

The existing coastal margin west of Northport supports public walking, fishing and general recreational access, including access to the existing western fishing platform. The reclamation will alter the existing coastal edge and displace the existing access arrangement in that location.

The Project responds by providing public access around the western edge of the reclamation, access to a replacement public fishing platform and a small bird viewing hide overlooking Blacksmiths Creek and associated coastal bird habitat.

Public access will necessarily be separated from parts of the operational shipyard and may be controlled where required for health and safety, security, construction, maintenance and avifauna management purposes.

While the form and alignment of access will change, the Project retains a continuous public access and recreational response as an integral part of the design. On that basis, the Project appropriately recognises and provides for the maintenance and enhancement of public access to and along the coastal marine area, subject to the operational and safety constraints inherent in a working shipyard.

Section 6(e) – relationship of Māori with ancestral lands, water, sites, wāhi tapu and other taonga

Whangārei Harbour / Te Rerenga Parāoa and Poupouwhenua are culturally significant to mana whenua. The interim Patuharakeke CIA identifies cultural values and concerns associated with Poupouwhenua and Rauiri / Blacksmiths Creek, mahinga kai and customary fishing, ecological health, access to traditional places and resources, and the exercise of kaitiakitanga.

The Project will further modify the harbour through permanent reclamation and occupation of the CMA, dredging and seabed modification, loss and modification of marine habitat, changes to the coastal edge, and further industrialisation of the lower harbour. As assessed in Section 6.19, those physical and ecological effects also have a cultural dimension and have the potential to affect mahinga kai and customary use, cultural associations with the harbour, the exercise of kaitiakitanga and perceptions of the health and mauri of the marine environment. The Project therefore has cultural effects that cannot be completely avoided.

Engagement with mana whenua has informed the application and remains ongoing.

Section 6(f) – historic heritage

No recorded archaeological sites are located within the Project footprint and the Archaeological Assessment concludes that the potential for intact archaeological material is low.

An accidental discovery protocol will apply to relevant works and will require cessation of works, securing of the area and notification of tangata whenua, Heritage New Zealand Pouhere Taonga and other relevant parties if material of potential archaeological or cultural significance is discovered. Subject to those measures, the archaeological assessment concludes that effects on historic heritage will be appropriately managed.

Section 6(g) – recognised customary activities

No recognised customary marine title area or protected customary rights area has been identified within the Project area. The Project is, however, within rohe moana subject to customary fishing arrangements under the Fisheries Act, as addressed in Sections 3.2.7 and 6.19.3.

The Project will locally reduce the area of marine habitat available within that rohe moana, but will not alter the legal operation of the customary fishing arrangements or the functions of Tangata Kaitiaki/Tiaki. Those matters nevertheless form part of the wider cultural assessment addressed under section 6(e).

Section 6(h) – significant risks from natural hazards

The Project is coastal infrastructure and has therefore been assessed for coastal erosion, inundation, sea level rise, storm tide, waves and tsunami.

The Coastal Processes Assessment concludes that the Project will have a minor erosion effect within Marsden Bay, negligible effects on water levels and negligible effects on existing and future coastal hazards more generally. The proposed reclamation level has been assessed against projected extreme water levels and sea level rise, and detailed design will confirm reclamation levels, revetments, quay walls, stormwater systems and associated resilience measures. The assessed natural hazard risks for both the development and existing environment are low.

The Project therefore recognises and provides for the management of the natural hazard risks relevant to its coastal location.

7.7.4 Section 7 – Other matters

Section 7(a) – kaitiakitanga

The exercise of kaitiakitanga is directly relevant given the relationship of mana whenua with Whangārei Harbour, Poupouwhenua and Rauiri / Blacksmiths Creek. The interim Patuharakeke CIA and engagement undertaken to date identify concerns regarding ecological health, mahinga kai, customary access and use, cumulative modification of the harbour and the ability to exercise kaitiakitanga.

Those matters have informed the cultural and environmental assessment. Engagement remains ongoing regarding the appropriate form of cultural monitoring and mana whenua participation in environmental monitoring and management. The Project therefore has particular regard to kaitiakitanga, while recognising that the permanent modification of the CMA will result in cultural effects that are not removed by the proposed participation mechanisms.

Section 7(aa) – ethic of stewardship

The Project incorporates an extensive long term environmental management framework. Construction and operation will be subject to management plans, monitoring, reporting, containment, treatment, incident response and review requirements covering the principal environmental risks associated with the facility.

These measures are particularly relevant to stewardship because the Project will operate permanently within a sensitive coastal receiving environment. They are intended to ensure that the infrastructure is constructed and operated within the assessed effects envelope and that environmental performance is monitored over time.

Section 7(b) – efficient use and development of natural and physical resources

The Project represents an efficient use and development of physical resources in several respects.

The Marsden Point location enables a marine dependent activity to be established immediately beside existing port infrastructure and within an area specifically planned for maritime related industrial activity. It provides direct access to deep

navigable water, existing navigation infrastructure, the regional transport network and other established port and industrial services. The marine and land based components of the Project can therefore be integrated without duplicating those wider resources elsewhere.

The Project will also beneficially reuse suitable dredged material as reclamation fill rather than disposing of that material offshore. Existing infrastructure will be used where appropriate, including elements of the Northport stormwater system, subject to the controls and separate authorisations identified in the application.

Accordingly, the location and design make efficient use of both natural attributes (principally deep navigable and sheltered harbour waters) and existing physical resources at Marsden Point. This is consistent with the functional and operational need identified for the Project and with the NPS-I and RSI framework assessed elsewhere in Section 7.

Section 7(c) – maintenance and enhancement of amenity values

The Project will alter amenity values, particularly within the Marsden Bay / Albany Road receiving environment. Its scale, reclamation, large vessels, operational activity, lighting and proximity to the western edge of Northport will create a more direct maritime industrial presence than currently exists.

Those effects are material and should not be characterised as wholly avoided. The Project nevertheless incorporates measures to reduce them, including landscape treatment, pōhutukawa planting, lighting controls, operational noise limits, restrictions on higher noise activities, separation of operational and public areas, and continued public access around the western reclamation edge.

The Project therefore has particular regard to amenity values and incorporates measures to reduce adverse effects on them, but an adverse local change in amenity will remain.

Section 7(d) – intrinsic values of ecosystems

The intrinsic values of marine and coastal ecosystems are directly relevant to the Project. The affected intertidal and subtidal habitats have ecological value

independent of their utility for particular species or human uses. The One Tree Point to Marsden Bay SEA, shellfish habitat, seagrass, benthic communities and other biogenic habitat values are described in Sections 3.6 and 6.7.

Those values have informed the location, design and effects management response. Nevertheless, reclamation and dredging will permanently remove or modify some of those ecosystems and the loss cannot be fully remedied. Section 7(d) is therefore a material consideration and reinforces the need to recognise the residual ecological effects in the overall assessment.

Section 7(f) – maintenance and enhancement of the quality of the environment

The Project is proposed within a substantially modified port and industrial environment, but the surrounding environment has significant ecological, cultural, landscape, natural character, recreational and amenity values.

The proposed construction and operational controls are directed to maintaining environmental quality beyond those effects that are inherent in establishing the Project. In particular, controls relating to stormwater and washwater, air discharges, noise, lighting, sediment, biosecurity, hazardous substances and spills are intended to prevent avoidable deterioration in environmental quality.

The permanent physical and ecological changes associated with reclamation, dredging and occupation mean that the quality of the environment will nevertheless change at the local scale. Section 7(f) is therefore addressed principally through the measures adopted to limit that change and protect the remaining environmental values surrounding the Project.

Section 7(i) – effects of climate change

The effects of climate change have been incorporated into the Project's coastal hazard assessment and concept design. The assessment considers sea level rise, coastal inundation, storm tide, waves and shoreline change over the relevant design horizon. The proposed reclamation level has been assessed against projected extreme water levels and sea level rise, with final levels and associated coastal and stormwater infrastructure to be confirmed through detailed design.

The Project has therefore had particular regard to the effects of climate change in both the assessment of natural hazard risk and the design response.

7.7.5 Overall Part 2 conclusion

The assessment under sections 5, 6 and 7 requires recognition of both the substantial enabling benefits of the Project and the important environmental and cultural values affected by it.

The Project will provide nationally significant marine maintenance infrastructure and substantial regional and national economic, resilience and strategic benefits. It has a demonstrated functional and operational requirement for direct access to deep navigable water and for an integrated marine and land based operational platform. Marsden Point provides those characteristics within an established maritime industrial environment and predominantly within the MPPZ, where maritime related commercial and industrial development is specifically contemplated.

The Project nevertheless engages important matters in section 6 and will result in residual adverse effects. Most significantly, reclamation and dredging will permanently remove or modify intertidal and subtidal marine habitat, including habitat with significant ecological values. There will also be residual effects on Northern New Zealand dotterel, localised landscape, natural character and amenity values, and cultural effects associated with further modification and occupation of Whangārei Harbour.

The location, footprint and design of the Project have, however, been developed to reduce those effects to the extent practicable while retaining the functionality required of the infrastructure. Further effects will be avoided, remedied or mitigated through construction methodology, containment and treatment systems, operational controls, management plans, monitoring and enforceable consent conditions.

In that context, and having regard to the relevant matters of national importance and the other matters in sections 6 and 7, the Project is considered to promote the sustainable management of natural and physical resources for the purposes of Section 5. That conclusion reflects an overall assessment of the Project's enabling

function and significant benefits, its functional and operational requirements and specifically planned location, the nature and extent of the environmental and cultural effects that will arise, and the measures adopted to avoid, remedy or mitigate those effects.

This Part 2 assessment forms part of the wider statutory assessment under the FTAA. The reconciliation of the relevant RMA planning instruments and the application of the FTAA decision-making framework are addressed in Section 7.8 below.

7.8.2 Nature and extent of the ecological effects relevant to the reconciliation

Ecological effects relevant to the reconciliation comprise the effect on northern New Zealand dotterel and the permanent loss of, or modification to intertidal and subtidal marine habitat. These require separate consideration because the protected subject matter and biological effects differ. The dotterel assessment concerns whether the habitat loss and disturbance result in material adverse harm to the threatened taxon. The marine ecology assessment concerns permanent effects on the ecosystems and habitats themselves.

For Northern New Zealand dotterel, the Coastal Avifauna Assessment identifies a moderate overall residual effect. The principal effects are permanent loss of some intertidal foraging habitat and temporary disturbance and displacement during construction. Subject to the proposed management measures, injury and mortality will be avoided.

Northern New Zealand dotterel are mobile and use a network of feeding, roosting and breeding habitats around Marsden Bay and Whangārei Harbour. The Project footprint affects a limited proportion of the habitat and local population considered in the expert assessment. The assessment does not identify material effects on breeding success, recruitment, local population viability, the species' natural range or population persistence.

The permanent habitat loss remains an adverse ecological effect and forms part of the moderate overall effect rating. On the technical evidence, however, it is not expected to result in material harm to the northern New Zealand dotterel taxon. The

avoidance outcomes applying to the taxon under Policy 11(a)(i) and Policy D.2.18 are therefore assessed as achieved.

The reclamation and relocated bird roost will permanently remove intertidal habitat, including habitat within the One Tree Point to Marsden Bay SEA. The berth pocket and dredging will also remove or modify subtidal habitat and benthic communities.

Dredging will alter the benthic environment within the dredged basin. Although recolonisation will occur, reduced currents, reduced light and the potential loss of shell-gravel substrate are expected to result in communities with lower abundance, diversity and productivity than the communities present before dredging. This is distinct from temporary off-site plume effects, for which ecological values are expected to recover more rapidly after dredging ceases. The former is a continuing habitat effect relevant to NZCPS Policy 11 and RPN Policy D.2.18. The latter is principally addressed through dredging methodology, monitoring and response controls.

Those effects include permanent loss of habitat and ecological function. New revetment and piled structures will create hard substrate habitat, but that habitat is not ecologically equivalent to the soft sediment, shell gravel, macroalgal and other benthic habitats that will be lost. The marine habitat effects are permanent and cannot be reversed within the Project footprint. They remain a material consideration in the overall reconciliation.

The wider Marsden Bay SEA and harbour context is relevant to the scale and consequence of the effects, including under RPN Policy D.2.18(5). Having regard to that context and the effects identified within the Project footprint, the reconciliation proceeds on the basis that the habitat related avoidance outcomes in NZCPS Policy 11 and RPN Policy D.2.18 are not fully achieved.

7.8 RECONCILIATION OF THE STATUTORY DIRECTIONS

7.8.1 Reconciliation framework

The statutory framework contains provisions that pull in different directions. NZCPS Policy 11 and RPN Policy D.2.18 contain directive avoidance outcomes applying to threatened or at-risk taxa and specified coastal ecosystems and habitats. On the technical evidence, the avoidance outcomes applying to northern New Zealand

dotterel are achieved because the proposed measures will avoid material harm to the taxon. The avoidance outcomes applying to the areas of intertidal and subtidal habitats that will be reclaimed are not fully achieved.

Counter to the above, the NPS-I, the RPS and the RPN also contain specific directive recognition and enabling support for infrastructure and RSI, including infrastructure with a functional or operational need for a particular location. The RPN additionally identifies the MPPZ as the appropriate location for maritime related commercial and industrial activity.

This assessment first applies the ecological avoidance policies and identifies the outcomes that are achieved and the extent to which the habitat related outcomes are not achieved. Those findings are then considered within the wider statutory framework, including the provisions addressing infrastructure, functional need, location and effects management.

The reconciliation is therefore undertaken sequentially. It first identifies the permanent marine habitat effects and the extent to which the habitat related avoidance outcomes are not achieved. It then assesses whether those effects arise from an avoidable locational or design choice or are an unavoidable consequence of providing the assessed infrastructure. It next applies the NPS-I, the RPS and the RPN provisions that expressly address infrastructure and RSI, including RPN Policy D.2.9. The final evaluative assessment is then undertaken under Schedule 5, clause 17 of the FTAA, which requires the greatest weight to be given to the purpose of the Act.

The reconciliation therefore considers whether the permanent marine habitat effects, and the resulting tension with the habitat related avoidance policies, are an unavoidable and proportionate consequence of providing the infrastructure recognised and supported by the wider statutory framework.

7.8.3 Functional need, alternatives and effects minimisation

The assessment of functional need, alternatives and design addresses whether the permanent marine habitat effects can practicably be avoided while still providing the Project.

The Project requires direct access to deep navigable water and an integrated land-water operational platform. The vessel lifting system, berth pocket, wet berths, dredged manoeuvring area, heavy load transfer areas, hardstand and associated servicing infrastructure must function as an integrated facility. An inland location, a location separated from navigable water, or a method that does not provide the required contiguous operational platform would not provide the assessed vessel maintenance and repair capability.

The practicable location and form of the Project are also constrained by vessel dimensions, navigation and manoeuvring requirements, water depth, sheltered conditions, berthage, heavy load transfer, adjoining industrial land, transport access and access to port, customs, biosecurity and marine support services. The Issues and Options Report at Appendix 12 and the Concept Design and Construction Report at **Appendix 11** assess the available location and design options against those requirements.

The reports support three relevant findings. First, there is no practicable method of providing the Project without reclamation, dredging and occupation of the coastal marine area. Second, no practicable alternative location has been identified that provides the required combination of navigable water, operational land, marine services and transport access while avoiding the permanent intertidal and subtidal habitat effects, without giving rise to other material environmental, operational or infrastructure constraints. Third, within the selected location, the Project footprint and form have been refined to reduce effects while retaining the required operational function.

The design response includes locating the Project beside Northport rather than establishing a separate marine industrial node, concentrating the development predominantly within the MPPZ, using suspended structures where practicable, limiting dredging to the assessed navigation and operational extent requirements, separating higher risk operational discharges, and applying construction, monitoring and response controls. The technical assessments identify the effects that can be avoided or reduced through those co-location measures and the permanent marine habitat effects that remain.

The assessment has not identified a practicable alternative location or design that would provide the Project with materially lower marine habitat effects. Those effects arise from the coastal occupation, reclamation and dredging required to provide the Project in a practicable location. Their nature and significance remain unchanged, but the absence of a practicable lower effect alternative is relevant to the reconciliation of the applicable statutory directions.

7.8.4 Application of the infrastructure and locational provisions

Specific national and regional planning provisions apply to the Project as a maritime related industrial/infrastructure activity located predominantly within the MPPZ.

NPS-I Policy 1 requires the national, regional and local benefits of infrastructure to be recognised and provided for. The Economic Impact Assessment and the Regional and National Public-Interest Benefits Report identify significant regional and national benefits, including substantial regional economic activity and employment, reduced offshore servicing dependency, improved control over vessel maintenance and return-to-service, strengthened transport and maritime resilience, and increased domestic strategic capability and optionality.

NPS-I Policy 2 requires recognition that infrastructure may have a functional or operational need to locate in a particular environment or to connect with existing infrastructure. That direction applies directly to the Project's need for navigable water, berthage, vessel access, heavy load transfer and integration with existing port and marine servicing infrastructure.

NPS-I Policies 4 and 7 require efficient delivery, effective use of existing infrastructure, consideration of technical and operational constraints, route, site and method selection, and proportionate mitigation and conditions. The Marsden Point location allows the Project to use an established maritime industrial setting and existing navigation, transport and servicing resources. The design, management plans and proposed conditions address the effects that can practicably be managed.

NPS-I Policy 9 directs that new infrastructure be enabled in all environments, while requiring that direction to be read alongside the national, regional and district

provisions protecting the coastal environment, indigenous biodiversity and other matters of national importance affected by the Project.

At the regional level, RPN Policies D.5.8 and D.5.9 reflect a deliberate spatial planning choice to provide for maritime related commercial and industrial activities within the MPPZ. Policy D.5.9 states that development within the MPPZ will generally be appropriate where it is consistent with existing or anticipated adjoining development or is associated with RSI. The Project is consistent with both these criteria. It is consistent with the established and anticipated development of the adjoining Northport and Marsden Point area, and it is RSI.

The Project also satisfies the principal reclamation threshold in NZCPS Policy 10. The reclamation is required because there is no practicable alternative method of providing the assessed activity, and the Project will provide significant regional and national benefits. Policy 6 of the NZCPS further recognises the contribution of infrastructure and activities with a functional need to locate and operate in the coastal marine area.

7.8.5 Reconciliation under RPN Policy D.2.9

RPN Policy D.2.9 is the principal plan provision for determining whether RSI with adverse effects is appropriate. It expressly requires the relevant considerations to be brought together and given appropriate weight. Applied to the Project, those considerations support the following findings.

The Project's benefits are significant and are supported by the Economic Impact Assessment and Non-Economic Benefits Report. The Project is also recognised and provided for in national direction through the NPS-I.

The Project has a demonstrated functional need for a coastal marine area location. Its operational, technical and locational constraints materially limit the available locations and methods. The alternatives assessment has considered the principal options and has not identified a practicable option that provides the required functionality while avoiding the permanent intertidal and subtidal habitat effects.

The extent to which adverse effects can be avoided, remedied or mitigated has been addressed through site and method selection, footprint refinement, suspended

structures where practicable, construction methodology, timing controls, source separation, containment, monitoring, response procedures, management plans and proposed conditions. Those measures materially reduce the effects but cannot restore or replace the marine habitat permanently occupied by the reclamation or dredged.

The Project will achieve consolidated/co-located development and efficient use of land and resources by extending an established maritime industrial node, locating predominantly within the MPPZ, and using existing navigation, transport, servicing and industrial infrastructure. A materially similar facility in a new location would require duplication of those resources and could result in development and effects within a less modified part of the coastal environment.

Policy D.2.9 requires the permanent marine habitat effects to be considered alongside the Project's benefits, recognition in national direction, functional need, alternatives, operational and locational constraints, effects management, and contribution to consolidated development and efficient resource use. The Project is well supported by those considerations, while the permanent habitat loss remains an adverse effect that cannot be avoided through the available location, design or method options.

Taken together, those matters support the conclusion that the Project is appropriate under Policy D.2.9, notwithstanding the recognised tension between the permanent marine habitat effects and Policy D.2.18. That conclusion reflects the Project's recognition as infrastructure under the NPS-I, its demonstrated regional and national benefits, its functional and operational need for this type of location, the absence of a practicable alternative that would avoid the relevant habitat effects while providing the assessed function, the measures adopted to reduce those effects, and the consolidation of the Project within the location identified for maritime related industrial activity.

7.8.6 FTAA evaluation and overall reconciliation

Under Schedule 5, clause 17 of the FTAA, the Panel must take into account the relevant RMA matters and other specified considerations and must give the greatest weight

to the purpose of the FTAA, being “to facilitate the delivery of infrastructure and development projects with significant regional or national benefits”.

The ecological policy tension has been identified before applying that weighting direction. It arises principally from the permanent loss and modification of significant intertidal and subtidal habitat. The Coastal Avifauna Assessment separately identifies a moderate overall effect on northern New Zealand dotterel associated with habitat loss and disturbance. Subject to the proposed measures, that effect is not expected to result in material harm to the taxon.

The statutory framework provides a coherent basis for approval. The NPS-I directs the benefits, functional need and efficient delivery of the infrastructure to be recognised and provided for. NZCPS Policies 6 and 10 recognise the functional need for coastal activities and provide a pathway for reclamation where there is no practicable alternative method and significant benefits will result. The RPS recognises the regional importance of RSI. The RPN identifies the MPPZ as a location specifically provided for maritime related industrial activity and, through Policy D.2.9, expressly provides the framework for determining whether RSI with material effects is appropriate.

The technical evidence establishes that while the permanent marine habitat effects cannot practicably be avoided, the selected location and design reduce those effects to the extent practicable. Those effects arise from the reclamation, dredging and coastal occupation required to provide the assessed infrastructure, after practicable alternatives and effects reduction measures have been considered. The Project is nationally significant infrastructure with a demonstrated locational need, regional and national benefits, and a strong fit with the specific regional planning provisions applying to the site.

The proposed conditions, including the management plans, provide enforceable requirements for the management of effects. The proposed ecological and cultural enhancement contribution is an additional response to residual effects and wider harbour values.

The tension between the permanent marine habitat effects and the habitat related avoidance outcomes in NZCPS Policy 11 and RPN Policy D.2.18 can be reconciled with the provisions supporting the Project. The Project is appropriate RSI under Policy D.2.9, is supported by the NPS-I and the MPPZ provisions, satisfies the relevant functional need and reclamation provisions, and will provide demonstrated significant regional and national benefits of the nature assessed in Sections 2.4 and 6.3.

Giving the greatest weight to the purpose of the FTAA, and considering the relevant RMA matters and statutory instruments, the statutory framework supports the grant of the resource consents subject to the proposed conditions.

8. WILDLIFE ACT APPROVAL ASSESSMENT

8.1 INTRODUCTION

This is an application for a wildlife approval under the FTAA for the Northland Shipyard Project (the Project).

This wildlife approval is sought under s 42(4)(h) of the FTAA for activities that would otherwise require authority under the Wildlife Act 1953. This application has been prepared to address the information requirements in Schedule 7, clause 2(1) of the FTAA and the Panel's decision-making matters under Schedule 7, clause 5. If granted, the wildlife approval will have effect as lawful authority for the relevant act or omission for the purposes of Part 5 of the Wildlife Act 1953, in accordance with Schedule 7, clause 7 of the FTAA.

The approval is sought to authorise specific actions involving kororā / little blue penguin (*Eudyptula minor*) where those actions are necessary to avoid or minimise injury, mortality, disturbance, or other adverse effects on kororā during construction of the Project.

The Project involves the construction and operation of a proposed shipyard and dry dock facility adjoining the western side of the existing Northport facility at Marsden Point, Whangārei Harbour. The Project includes reclamation, a vessel haul-out system, associated wharf structures, dredging, and supporting infrastructure. The Project is listed in Schedule 2 of the FTAA.

The KMP at **Appendix 9D** records that the rock revetment along the western side of Northport is the only potential kororā habitat within the Project footprint, and that three surveys undertaken to date have not recorded kororā or signs of kororā use in that area. A conservative management approach is nevertheless proposed because kororā may use the revetment in future.

The proposed wildlife approval conditions have been structured as a formal FTAA wildlife approval instrument, comprising a Schedule 1 authorised activity table, Schedule 2 standard terms and conditions, Schedule 3 special conditions, and Schedule 4 map of the land covered by the approval.

Section 8.20 identifies where the information required by Schedule 7 is provided.

8.2 APPROVAL SOUGHT

The applicant seeks a wildlife approval for the following actions involving kororā / little blue penguin, but only where required for the Project and only in accordance with the Kororā Management Plan and conditions of approval:

- Survey for, inspect, monitor and record kororā and any burrows, roosts, shelters, crevices, voids, guano, feathers, tracks, calls or other signs of kororā;
- Use DOC certified conservation dogs and handlers, SQEs, burrowscopes, cameras, global positioning system (GPS) devices and other non-invasive equipment to detect, confirm, record and monitor kororā and potential kororā habitat;
- Identify, mark, map, photograph and monitor active burrows, potential burrows and areas of potential kororā habitat;
- Establish, maintain, adjust and remove exclusion zones, fencing, coverings, barriers and other temporary protection measures to avoid or minimise adverse effects on kororā;
- Capture, handle, temporarily hold, transport, release and relocate non-breeding and non-moulting kororā where necessary to avoid or minimise injury, mortality or significant disturbance associated with the Project;
- Incidentally disturb kororā where that disturbance is unavoidable, directly associated with the activities authorised by the wildlife approval, and carried out in accordance with the Kororā Management Plan;
- Handle and transport injured kororā for the purpose of obtaining veterinary care or transfer to an authorised wildlife rehabilitator;
- Collect, store and transfer deceased kororā in accordance with DOC direction, including for necropsy where required by DOC; and
- Undertake reporting, record keeping and monitoring and response measures associated with the authorised activities.

8.3 PURPOSE OF THE PROPOSED ACTIVITY

The purpose of the proposed activity is to avoid, minimise and manage adverse effects on kororā during construction of the Northland Shipyard and Drydock Project.

In particular, the Wildlife Approval is sought so that, if kororā are found within the Project construction footprint, the western Northport rock revetment, associated works areas, rock storage areas, or other locations where kororā may be affected by the Project, suitably qualified and authorised personnel can lawfully undertake the necessary management actions to avoid injury, mortality, nest abandonment, disturbance, or entrapment.

The approval is precautionary. The KMP records that no kororā, and no signs of kororā use, have been recorded during the three surveys undertaken to date along the western Northport revetment. However, kororā are known to breed on nearby islands, including High Island and Calliope Island, and the rock revetment provides potential habitat that could be used in future.

The approval is therefore sought to provide a lawful and enforceable framework for implementing the KMP if kororā are encountered before or during construction.

8.4 PROTECTED WILDLIFE SPECIES COVERED BY THE APPROVAL

The approval is sought for the species in **Table 8-1** below:

Table 8-1: Protected wildlife species covered by the Wildlife Act approval

Common name	Māori name	Scientific name	Conservation status	Legal status
Little blue penguin	Kororā	<i>Eudyptula minor</i>	At Risk – Declining	Protected under the Wildlife Act 1953

No kororā have been recorded within the Project footprint during the three surveys undertaken to date. On that basis, the number of kororā known to be present within the Project footprint is currently zero.

Because the western revetment provides potential habitat, the approval is sought on a precautionary basis for any kororā that may occupy the revetment or associated works areas before or during construction. The number of kororā that may require capture, handling, temporary holding, release or relocation is expected to be low. The application should be read as seeking approval for the management of kororā

encountered within the identified potential habitat and associated works areas, rather than as approval for the relocation of an established colony.

8.5 LOCATION OF THE ACTIVITY

The activity will be carried out within the Northland Shipyard Project construction footprint at Marsden Point, Whangārei Harbour, focused on the area of potential kororā habitat identified in the KMP.

The primary area of potential kororā habitat is the western Northport rock revetment.

Figure 2 of the KMP identifies that area as potential kororā habitat.

The wildlife approval also needs to apply to associated works and management areas because the KMP includes controls for rock movement, rock storage, site compounds, plant and machinery, construction materials, pump hoses, pipes, temporary fencing, and areas where kororā may shelter if birds or signs are detected.

The wildlife approval therefore applies to:

- (a) The western Northport rock revetment;
- (b) Any rock movement, rock removal, rock placement or rock storage area associated with works in the potential kororā habitat;
- (c) Any site compound, stockpile area, plant or machinery area, pipe / hose storage area, construction material storage area, access area or temporary works area within the Project footprint where kororā are detected, or where the SQE determines that kororā may be affected;
- (d) Any temporary holding location used for kororā captured under the approval; and
- (e) Any release site approved under the approval.

8.6 EXISTING ENVIRONMENT AND SURVEY INFORMATION

Kororā are nocturnal and typically come ashore after dusk and leave before dawn. Adults may nevertheless be present at colonies throughout the year, including during daylight hours. Breeding generally occurs between August and January, although timing can vary between individual pairs. During incubation and chick rearing, adults

or chicks may be present in burrows during both day and night. Kororā also undergo an annual moult, during which they remain ashore and cannot swim.

Kororā may nest or roost in both natural and artificial habitats, including rock crevices, riprap revetments, caves, logs, vegetation, buildings, pipes, timber stacks and other structures. They generally nest above MHWS and may use modified coastal structures where suitable crevices or sheltered spaces are available.

The Avifauna Assessment at **Appendix 16** identifies the rock revetment along the western side of Northport as the only potential kororā habitat within the Project footprint. Three surveys have been undertaken along that revetment, and no kororā or signs of kororā use have been recorded.

The absence of kororā during the surveys means that the Wildlife Act approval is sought on a precautionary basis. However, the possibility of future occupation cannot be excluded because kororā may use rock crevices, riprap revetments and other modified coastal structures, and may show strong fidelity to established nesting or roosting sites.

The KMP at **Appendix 9D** provides for pre-works surveys and response procedures to ensure that any kororā occupation identified before or during construction is appropriately managed.

8.7 ACTIONS INVOLVING PROTECTED WILDLIFE

The actions proposed to be authorised are limited to those necessary to manage kororā in the context of construction works.

Pre-works surveys

Before rock movement within the area of potential kororā habitat, a pre-work survey will be undertaken by a DOC certified conservation dog and handler in conjunction with a SQE. The survey will be undertaken on the first morning of rock movement, before works commence.

If a detection is made, a burrowscope or camera will be used to assist with identifying burrow contents. The following information will be recorded:

- Date and time of detection;

- Location of detection;
- Whether the detection was made by dog or person;
- Presence of signs such as guano or feathers;
- Presence and number of moulting or non-moulting birds;
- Presence and number of eggs or chicks;
- GPS location;
- Photographs; and
- Burrow identification number.

The KMP also provides that each detection location will be assigned an individual identifier, marked, recorded by GPS, photographed, and added to a habitat map.

Active burrow monitoring

If an active burrow is detected, fortnightly visual monitoring will be undertaken by the SQE using a burrowscope or camera. Monitoring will record kororā signs, breeding or moulting birds, eggs and chicks. The SQE will determine when a burrow is no longer active. Where a burrow cannot be visually monitored, a DOC certified conservation dog will be used to assist that determination.

Exclusion zones

Where an active burrow is detected, or the SQE determines that a burrow, crevice, void or shelter is active, a 10 m exclusion zone will be established and demarcated. The exclusion zone will extend 10 m from rock or debris removal, placement, ground disturbance, machinery, storage, laydown or construction activity. The exclusion zone must not impede kororā access between the active burrow and the ocean. Construction work, storage, laydown, machinery, plant, vehicles and general access will be excluded, except for access by the SQE.

No works will occur within an established exclusion zone until the SQE determines that the burrow is no longer active.

Capture, handling and relocation

Capture, handling and relocation will only occur if a wildlife approval has been obtained and only by persons authorised under that approval.

Capture, handling and relocation may occur where:

- Non-breeding and non-moulting kororā are present within the proposed area of rock movement; or
- Non-breeding and non-moulting kororā are within 10 m of proposed rock movement and would otherwise be at risk; or
- Non-breeding and non-moulting kororā are incidentally discovered in habitat that will be directly impacted by works; or
- Kororā are discovered in a location where an unobstructed path to the ocean is not available and relocation is necessary to avoid harm.

Breeding or moulting kororā will not be handled or relocated for the purpose of enabling construction works. Where breeding or moulting kororā are found, an exclusion zone will be established and works will not proceed within the exclusion zone until the burrow is no longer active.

Kororā will only be released at a release site approved in writing by DOC and recorded in the KMP. Before any planned capture, handling, temporary holding, transport, release or relocation occurs, the Wildlife Approval Holder will provide DOC with a written record confirming the approved release site, including a map and New Zealand Transverse Mercator 2000 (NZTM) coordinates, or confirming the process by which the release site will be approved in accordance with the KMP.

Temporary holding and release

Before capture, the authorised handler will wear gloves and prepare a ventilated, sturdy carrier box lined with a towel. The KMP specifies an indicative box size of approximately 40 cm long, 30 cm wide and 35 cm high. One kororā will be placed in each box, except where two birds are found in the same burrow, in which case they may be transported together and released together.

The maximum holding time will be two hours, with immediate relocation and release prioritised. The carrier box will be kept shaded, securely closed, upright and handled carefully during transport.

Kororā will be released at a release site approved as part of the wildlife approval.

The release site will be selected having regard to:

- Proximity to the capture location;
- Safe and unobstructed access to the sea;
- Suitable natural or artificial shelter;
- Avoidance of active construction areas;
- Predator risk;
- Lighting, noise and human disturbance;
- Landowner or occupier approval, where required;
- Cultural matters identified by mana whenua; and
- Any relevant DOC advice.

8.8 ASSESSMENT AGAINST THE PURPOSE OF THE WILDLIFE ACT 1953

The Wildlife Act 1953 does not contain a standalone purpose section. However, its protective purpose is reflected in Section 3, under which wildlife is, subject to limited exceptions, absolutely protected throughout New Zealand. The relevant question for this application is therefore whether the proposed approval would be consistent with the protection of kororā, having regard to the effects of the Project on that species and the measures proposed to avoid, minimise and manage those effects. The proposed wildlife approval is consistent with that protective purpose because:

- It is precautionary and limited to kororā management;
- It avoids handling or relocating breeding and moulting birds for construction-enabling purposes;
- It requires pre-works surveys before works in potential habitat;
- It requires works to stop or be excluded around active burrows;
- It allows relocation only for non-breeding and non-moulting birds where necessary to avoid harm;
- It requires suitably qualified and authorised personnel;
- It uses DOC-certified conservation dogs and accepted ecological survey methods;
- It requires records, reporting and incident response; and
- It provides a lawful and controlled pathway for managing kororā if they are discovered during works.

The approval is consistent with the protective purpose of the Wildlife Act because it provides a controlled and lawful mechanism for managing kororā if they are encountered, while expressly avoiding the handling or relocation of breeding and moulting birds for the purpose of enabling construction works, and while not authorising intentional injury or killing.

8.9 MANDATORY DECLINE MATTERS

The applicant does not consider that any mandatory decline matter in s 85 of the FTAA applies to this wildlife approval. In particular:

- The approval is not sought for an ineligible activity;
- Granting the approval would not breach obligations relating to Treaty settlements or recognised customary rights;
- The approval is sought for the management and protection of kororā during construction, rather than for any activity inconsistent with the protective purpose of the Wildlife Act; and
- The proposed conditions and KMP provide a clear framework for avoiding, minimising and managing effects on kororā.
- The approval does not authorise the intentional injury or killing of kororā.

This assessment should be confirmed following completion of Treaty settlement / customary rights checks and consultation with mana whenua.

8.10 ACTUAL AND POTENTIAL EFFECTS ON KORORĀ

The actual and potential effects of the Project on kororā are assessed having regard to the Avifauna Assessment at **Appendix 16** and the survey information recorded in the KMP at **Appendix 9D**.

Positive effects

The wildlife approval will have positive effects by ensuring that any kororā encountered during construction are managed under a clear, authorised and expert led process. Positive effects include:

- Reduced risk of injury or mortality;
- Reduced risk of accidental disturbance to active burrows;

- Early detection of kororā before works commence;
- Exclusion of works from active burrows;
- Lawful and humane relocation of non-breeding and non-moulting birds where necessary;
- Improved contractor awareness through site protocols;
- Improved monitoring and reporting; and
- Clear incident response procedures.

Adverse effects

Potential adverse effects on kororā include:

- Injury or mortality during rock movement, construction, storage of materials, operation of plant or vehicle movement;
- Disturbance to birds using the revetment;
- Crushing, collapse or removal of occupied crevices or burrows;
- Disturbance to breeding birds, eggs or chicks;
- Disturbance to moulting birds;
- Temporary displacement of non-breeding or non-moulting birds;
- Stress associated with capture, handling, temporary holding and relocation;
- Obstruction of access between burrows and the ocean;
- Entrapment in work areas, pipes, machinery, stored rock or construction materials;
- Increased predation risk if birds are displaced or shelter in unsafe areas; and
- Accidental injury or death despite management measures.

Effects on other indigenous species and ecosystems

The approval is limited to kororā. The actions proposed are not expected to result in material adverse effects on other indigenous species or ecosystems because they involve targeted survey, monitoring, capture, short-term holding and release of individual kororā, and temporary site management measures.

8.11 AVOIDANCE AND MINIMISATION MEASURES

The proposed avoidance and minimisation measures are set out in the KMP at **Appendix 9D** and secured through the proposed Wildlife Act approval conditions at **Appendix 8**.

The Project adopts the following hierarchy of measures.

Avoidance

The key avoidance measures are:

- Pre-works survey before rock movement in potential kororā habitat;
- No handling or relocation of breeding or moulting kororā for construction purposes;
- Establishment of 10 m exclusion zones around active burrows;
- No works within exclusion zones until the SQE determines that the burrow is no longer active;
- Ensuring exclusion zone demarcation does not block kororā access to the ocean; and
- Maintaining an unobstructed path between kororā and the ocean where birds are incidentally discovered.

Minimisation

The key minimisation measures are:

- DOC certified conservation dog survey;
- SQE oversight;
- Burrowscope or camera inspection;
- Marking and GPS recording of burrows;
- Daily inspections where kororā have been detected or signs are present;
- Penguin-proof fencing around compounds and stockpile areas where required;
- Checking machinery, materials, pipes, hoses and voids before work each day;
- Capture and relocation of non-breeding and non-moulting birds only where necessary; and
- Immediate involvement of the SQE if kororā are discovered.

- Temporary fencing, covering or other controls around rock storage areas where required by the KMP to prevent kororā inhabiting stored rocks;
- Secure fastening of any covering or fencing to minimise the potential for kororā to enter through any gap;
- Inspection of stored rocks by a DOC-certified penguin detector dog or SQE before the rocks are moved;
- Release of relocated kororā only to a DOC-approved release site recorded in the KMP;
- Immediate SQE and mana whenua notification in the event of kororā injury or death; and
- Highly pathogenic avian influenza (HPAI) / bird flu response procedures where three or more sick or dead wild birds are observed in a group.

Where penguin proof fencing is required, the KMP requires it to be securely fastened at ground level, without gaps, and at least 50 cm high to prevent kororā passing over or beneath it.

Remedy, offsetting and compensation

No offsetting or compensation is proposed because the Project is not expected to result in more than minor residual adverse effects on kororā after implementation of the KMP and the proposed wildlife approval conditions.

This conclusion reflects:

- The absence of kororā or signs of kororā during surveys undertaken to date;
- The limited extent of potential habitat within the Project footprint;
- The requirement for pre-works survey before rock movement in potential habitat;
- The prohibition on handling or relocation of breeding or moulting birds for construction purposes;
- The requirement for exclusion zones around active burrows;
- The restriction of relocation to non-breeding and non-moulting birds where necessary to avoid injury, mortality or significant disturbance;
- The requirement for DOC-approved release sites and reporting; and
- The injury/death response and incident reporting requirements.

If monitoring identifies unanticipated occupation or effects, additional measures may be required through monitoring and response measures, including changes to works timing, additional exclusion measures, additional habitat management, artificial refuge / nesting opportunities, predator management, or other measures agreed with DOC.

8.12 BEST PRACTICE STANDARDS

The proposed methods represent best practice for this Project because they:

- Are precautionary, given no kororā have currently being recorded in the Project footprint;
- Are species specific to kororā;
- Recognise the sensitivity of breeding and moulting periods;
- Prohibit handling or relocation of breeding and moulting birds for construction purposes;
- Use DOC certified conservation dogs for detection;
- Require supervision by a SQE;
- Use visual inspection, burrowscope or camera methods to confirm burrow contents;
- Establish clear exclusion zones;
- Minimise holding duration and stress;
- Require gloves, appropriate ventilated carrier boxes, shade and careful handling;
- Require relocation only to an approved release site;
- Require accurate records and reporting; and
- Include incident response procedures for injured or dead kororā.

The methodology is set out in the KMP at **Appendix 9D**, including the requirements for pre-works surveys, active burrow monitoring, exclusion zones, capture and relocation, site fencing, daily inspections, injury and mortality response, and reporting.

The proposed Wildlife Act approval conditions follow the structure used for FTAA wildlife approvals, comprising an approval instrument, an authorised activity schedule, standard and Project specific conditions, and a mapped approval area.

The management approach remains specific to the Project and is precautionary because no kororā have been recorded within the Project footprint during the surveys undertaken to date.

8.13 ANIMAL WELFARE AND HUMANE HANDLING

Kororā will only be captured, handled, temporarily held or relocated by persons authorised under the wildlife approval.

The following humane handling measures will apply:

- Gloves will be worn before capture;
- Birds will be placed in a ventilated, sturdy carrier box lined with a towel;
- Boxes will be kept shaded;
- Boxes will be securely closed and kept upright;
- Transport will be careful and direct;
- Holding time will not exceed two hours unless required for welfare reasons by a veterinarian, DOC or authorised rehabilitator;
- Immediate relocation and release will be prioritised;
- Breeding and moulting birds will not be handled or relocated for the purpose of enabling works;
- Injured birds will be transported immediately to a wildlife veterinarian; and
- Dead birds will be managed in accordance with DOC direction, including necropsy where required.

The KMP provides that injured birds will be immediately transported to a wildlife vet, and that deceased kororā will be photographed, recorded, and referred to DOC to determine whether necropsy is required.

Any injured kororā will be managed in accordance with the injury response requirements in the KMP and proposed conditions, including immediate SQE notification, mana whenua notification, and transport to a wildlife veterinarian or authorised wildlife rehabilitator as soon as practicable.

Any deceased kororā will be managed in accordance with DOC direction. The KMP provides that dead kororā should be photographed and recorded, DOC should be

contacted to determine whether necropsy is required, and the carcass should be kept chilled and ideally not frozen unless directed, to preserve tissue for necropsy.

8.14 RELOCATION RECORDS AND REPORTING

The following information will be recorded for each relocated kororā:

- Date and time found;
- GPS location;
- Whether the bird is banded and, if so, band number;
- Name of handler;
- Release site; and
- Time of release.

The KMP states that this information will be entered into a spreadsheet and reported to DOC in accordance with wildlife approval conditions.

Additional reporting will include:

- All detections during pre-works surveys;
- Active burrow monitoring results;
- All relocations;
- Any injury or death within 24 hours;
- Necropsy results within 24 hours of receipt, if requested by DOC; and
- Incident reports within 10 working days of an unforeseen event or notable compliance failure causing adverse ecological effects.

Before any planned capture, handling, temporary holding, transport, release or relocation of kororā, the Wildlife Approval Holder will provide DOC with written confirmation of the approved release site, including a map and NZTM coordinates, or confirmation of the process by which the release site will be approved in accordance with the KMP.

8.15 INCIDENTAL DISCOVERY PROTOCOL

If kororā are incidentally discovered during enabling or construction works:

- (a) Works in the immediate area will stop;
- (b) The SQE will be contacted immediately;

- (c) The bird will not be handled or disturbed while awaiting the ecologist;
- (d) A minimum 5 m distance will be maintained from the bird;
- (e) An unobstructed path to the ocean will be maintained where practicable;
- (f) Only persons authorised under the wildlife approval may handle kororā;
- (g) Non-breeding and non-moulting birds in directly affected habitat may be captured, handled and relocated in accordance with the approval;
- (h) Non-breeding and non-moulting birds in indirectly affected habitat will generally be allowed to move of their own accord, provided there is an unobstructed path to the ocean;
- (i) Breeding or moulting birds will trigger an exclusion zone and monitoring and response measures; and
- (j) Injured or dead kororā will be managed in accordance with the injury/death protocol.

The incidental discovery protocol is consistent with the proposed conditions, which require any incidental disturbance to be unavoidable, not directly intended, and managed in accordance with the KMP.

8.16 HPAI / BIRD FLU PROTOCOL

The KMP includes procedures for highly pathogenic avian influenza / bird flu. New Zealand, Australia and the Pacific are currently recorded in the plan as free of the H5N1 strain of HPAI. If three or more sick or dead wild birds are observed in a group, the exotic pest and disease hotline will be contacted on 0800 809966, details and photographs will be provided, and birds will not be handled or moved unless instructed by MPI or DOC.

8.17 CONSULTATION

Consultation has been undertaken with DOC, mana whenua, Northport, and NRC in relation to the proposed kororā management methodology, including pre-works survey, exclusion zones, capture, handling, relocation, reporting, and injury/death response. The Kororā Management Plan has been updated to respond to matters raised through that consultation. Copies of the relevant consultation correspondence are provided in **Appendix 4**.

8.18 APPLICANT OFFENCE DECLARATION

For the purposes of Schedule 7, clause 2(1)(l) and (m) of the FTAA:

- (1) The applicant confirms that neither the applicant nor any company director, trustee, partner, or other person involved with this application has been convicted of any offence under the Wildlife Act 1953.
- (2) The applicant confirms that neither the applicant nor any company director, trustee, partner, or other person involved with this application has any current criminal charges under the Wildlife Act 1953 pending before a court.

8.19 EXPERT VIEWS, ADVICE, AND OPINIONS

This application relies on the Avifauna Assessment at Appendix 16 and the ecological advice reflected in the KMP at **Appendix 9D**.

The KMP was prepared by Dr Leigh Bull, Senior Ecologist / Director of BlueGreen Ecology Ltd (see qualifications and experience in Attachment 1 of the KMP).

8.20 ASSESSMENT AGAINST SCHEDULE 7 INFORMATION REQUIREMENTS

Table 8-2: Assessment against Schedule 7 information requirements

Schedule 7 requirement	Where addressed
Purpose of proposed activity	Section 8.3
Actions involving protected wildlife and where they occur	Sections 8.5 and 8.7
Assessment against purpose of Wildlife Act	Section 8.8
Protected species known or predicted and numbers likely to be impacted	Section 8.4, 8.6 and 8.10
Impacts on threatened, data deficient and at-risk species	Sections 8.4 and 8.10
Best practice standards	Section 8.12
Safe, efficient and humane capture/holding/relocation methods	Sections 8.7, 8.12 and 8.13
Location, maps and GPS coordinates	Section 8.5, 8.7 and 8.14.

Whether temporary holding or relocation is sought	Sections 8.5, 8.7 and 8.13
Actual and potential wildlife effects	Section 8.10
Methods to avoid, minimise, offset or compensate effects	Section 8.11
Wildlife Act conviction declaration	Section 8.18
Current Wildlife Act charges declaration	Section 8.18
Consultation proof and details	Section 8.17 and Appendix 4.
Additional expert views/advice/opinions	Sections 8.6 and 8.19, and the Kororā Management Plan at Appendix 9D

8.21 CONCLUSION

Three surveys have not identified kororā or evidence of their use of the revetment. The approval is nevertheless sought to ensure that any kororā encountered during construction can be protected and, where authorised, handled or relocated in accordance with the KMP.

The proposed conditions require further surveys before works, protect breeding and moulting birds from disturbance, prescribe handling and relocation procedures, and provide for veterinary care, reporting and oversight by suitably qualified persons. On that basis, the proposed activity is consistent with the purpose of the Wildlife Act and none of the mandatory decline grounds applies.

9. OVERALL ASSESSMENT AND CONCLUSION

The Project will establish nationally significant marine maintenance and repair infrastructure at Marsden Point, capable of servicing large commercial, specialist and naval vessels within New Zealand. The Economic Impact Assessment identifies significant regional and national economic benefits, including substantial capital investment, employment, value added, household income, retained maritime servicing expenditure and avoided offshore transit and vessel unavailability costs. The Regional and National Public-Interest Benefits Report identifies further material benefits arising from reduced reliance on offshore heavy marine maintenance, improved domestic control over vessel maintenance and return-to-service, strengthened transport and maritime resilience, and increased maritime strategic capability and optionality. The Project will also provide an enabling base for wider maritime sector, workforce and supplier capability.

The Project has both a functional and operational need for direct access to deep navigable water and for the marine and land based components of the facility to be integrated. Marsden Point provides those characteristics within an established port and industrial environment, and most of the marine component of the Project is located within the MPPZ – a zone intended specifically for this purpose. The Project is also infrastructure for the purposes of the NPS-I and RSI under the RPS and RPN.

The location nevertheless contains important environmental and cultural values. The Project will result in permanent reclamation and occupation of the CMA and residual adverse effects, most importantly the permanent loss and modification of intertidal and subtidal marine habitat, a moderate residual adverse effect on Northern New Zealand dotterel, temporary underwater noise effects on marine mammals during construction, localised landscape and amenity change, and cultural effects associated with further reclamation, dredging, occupation and modification of Whangārei Harbour. Cumulative effects associated with further coastal modification have also been identified.

The residual effects have been identified expressly and assessed within the application. Other potential effects, including coastal processes, stormwater and

water quality, air quality, terrestrial noise, navigation, traffic, biosecurity, archaeological and natural hazard effects, can be avoided, reduced or otherwise managed through the Project design, operational controls, monitoring and the proposed conditions and management plans. The conditions provide enforceable performance standards, monitoring requirements, response procedures and management plan certification processes for construction and operation.

The principal residual effects cannot be fully avoided without preventing the reclamation, dredging, coastal occupation and marine infrastructure required to establish and operate the Project. The assessment in Section 7 identifies the resulting tension with the habitat related avoidance outcomes in NZCPS Policy 11 and RPN Policy D.2.18, and considers that tension alongside the provisions that expressly recognise and provide for infrastructure, RSI, activities with a functional or operational need to locate in the CMA, reclamation where the relevant tests are met, and maritime related industrial development within the MPPZ.

Considered as a whole, the statutory framework provides a coherent basis for approval. The Project has a demonstrated locational need, has been designed to reduce adverse effects to the extent practicable, is strongly aligned with the infrastructure and spatial planning provisions applying at Marsden Point, and will provide significant regional and national benefits. Giving the greatest weight to the purpose of the FTAA, and considering the relevant RMA matters and statutory instruments, the assessment in Section 7 concludes that the resource consents can be granted subject to the proposed conditions.

A Wildlife Act approval is also sought on a precautionary basis in relation to kororā. Three surveys have not identified kororā or evidence of their use of the affected revetment. The proposed approval and KMP nevertheless provide for further survey, protection of breeding and moulting birds, and controlled handling or relocation where authorised if kororā are encountered. Section 8 concludes that the proposed activity is consistent with the purpose of the Wildlife Act and that none of the mandatory decline grounds applies.

Accordingly, and subject to the proposed conditions, the resource consents and Wildlife Act approval sought for the Project can be granted under the FTAA.



**MINISTRY OF BUSINESS,
INNOVATION & EMPLOYMENT**
HĪKINA WHAKATUTUKI