

21 February 2023

Attention: Stacey Sharp  
BECA

Email: stacey.sharp@beca.com

ref. 14656.blh

Dear Stacey

**RE: NORTHPORT EXPANSION CONSENTS – RESPONSE TO SECOND REQUEST FOR INFORMATION**

Please see attached a response from the Northport consent team to the two requests for information request dated 9 December 2022 and 2 December 2023 respectively.

Please note that there two outstanding items that may take another week or two to satisfy being:

- (1) Assessment of terrestrial vegetation in the expansion footprint (report pending).
- (2) Visual simulations (pending).

In the meantime, if you have any questions, please do not hesitate to contact me.

Yours faithfully



Brett Hood  
*Director*

Attachments:

RFI response

21 February 2023

Attention: Stacey Sharp/Blair Masefield  
Whangarei District Council/Northland Regional Council

ref. 14656.blh

Dear Stacey/Blair

**RE: NORTHPORT EXPANSION PROJECT (APP.005055.38.01 & LU2200107) – RESPONSE TO S92(1)  
REQUEST FOR INFORMATION**

This is a response to the two requests for information (RFIs) dated 19 December 2022 and 2 February 2023 respectively. The response is structured according to the headings and item numbers in the two RFIs.

**RFI dated 19 December 2022**

**Planning**

Item 1:

- 1.1 The application site is described in the AEE. Northport's stormwater treatment pond is located on Lot 2 DP 504140 owned by Marsden Maritime Holdings Ltd (MMH). This site should be included in the new discharge consent for operational stormwater. There is another treatment pond located on Lot 1 DP 504140 (also owned by MMH). However, this pond does not treat Northport stormwater and remains subject to a separate resource consent.

Item 2:

- 2.1 The application is for a container terminal. A container terminal is not specifically defined in any of the relevant statutory planning documents. However, its various component features are encompassed by the definition of "Port Activities" in the Whangarei District Plan (WDP), as discussed further below.
- 2.2 A container terminal is a multi-faceted entity, typically consisting of the following:
- Berth/wharves
  - Container handling area
  - Container handling equipment (cranes, trucks, trains etc)
  - Harbour control facilities.

- Coastguard facilities.
- Biosecurity facilities.
- Boarder control/customs facilities.
- Quarantine facilities.
- Tug and pilot facilities.
- Offices, workshops, and other facilities to support the above.

2.3 It is not realistic, nor appropriate, to consider the functional need of the container terminal in terms of its constituent parts, as all components are required for it to function as a “Port Activity. However, for clarity the various components are described in Table 1 below.

**Table 1: Container terminal – key components**

Component	Description
Berth/wharves	Mooring facilities/structures adjacent to the reclamation.
Container handling area	Area for short-term storage of containers in advance of loading onto a ship (export) or a truck/rail (import).
Container handling equipment and transport facilities	Cranes, reach stackers, forklifts, trucks, trains to assist with product loading, unloading and transport.
Harbour control facilities	Small facility responsible for ensuring and coordinating the safety and efficiency of commercial shipping operations in the harbour. The facility must be located within the port environs, close to the harbour edge to enable spatial awareness/perspective and real time observation.
Biosecurity/quarantine facilities	Typically consisting of: <ul style="list-style-type: none"> <li>▪ Quarantine station.</li> <li>▪ Rubbish collection facility.</li> </ul>

	<ul style="list-style-type: none"> <li>▪ Container washing required by MPI.</li> </ul> <p><u>Note:</u> The further away from the terminal, the greater the biosecurity risk.</p>
Boarder control/customs	Small facility that must be located somewhere within the port environs.
Tug and pilot facilities	<p>Tug and pilot facilities include:</p> <ul style="list-style-type: none"> <li>▪ Pontoons for mooring</li> <li>▪ Firefighting equipment adjacent to tugs (must be close to the tug mooring facility so that it can be quickly loaded onto the tugs)</li> <li>▪ Tug operation offices (must be located somewhere within the port environs).</li> <li>▪ Refuelling/maintenance facilities.</li> </ul>
Offices, workshop and associated facilities	<p>Including:</p> <ul style="list-style-type: none"> <li>▪ Operations team – needs to be located within the terminal.</li> <li>▪ Administration (somewhere within the port environs)</li> <li>▪ Workshops – need to be close to big machines e.g. gantries (Note: There are typically barriers to the movement of heavy equipment within the terminal which prevent the movement of heavy equipment to off-site maintenance facilities).</li> </ul>

2.4 Note that while the primary purpose of the facility is a container terminal, from time-to-time other temporary port uses may need to be accommodated (i.e. cruise ships).

2.5 Further discussion in respect to functional need is provided under item 55 and in **Attachment 1**.

### Item 3

- 3.1 A survey of terrestrial vegetation within the port footprint has been carried out. A report and associated assessment of effects will be provided as soon as it is available.
- 3.2 Landscaping will be undertaken along the access to the proposed pocket park, generally as shown on the pocket park plan included as Appendix 6 to the application AEE. It is anticipated that any landscaping proposed will be a requirement of the conditions applicable to the pocket park development and its associated public access.

### Item 4

- 4.1 The intention is for the bulk and location rules of the adjoining Port Zone (Operations Area A) to apply to activities at the container terminal. The Port Zone rules provide for specific permitted heights of public utilities, light towers, silos, aials, cranes, containers and tanks.
- 4.2 The secondary issue about functional need is addressed under Item 2. In summary, future buildings and structures on the reclamation could be used by any of the activities that make up the overall container terminal operation as required.

### Item 5

- 5.1 Maintenance dredging will be as required in order to maintain safe access by vessels. Based on both previous experience, and independent expert assessments undertaken as part of this application, maintenance dredging is anticipated to be infrequent and in isolated areas or 'pockets'.
- 5.2 Maintenance dredging of the existing swing basin has only been carried out once in the 23 years since initial construction of the port. That dredging took place 17 years after initial construction and was confined to isolated areas of accretion in the eastern part of the basin. Tonkin & Taylor has advised that they expect similar trends to continue following the proposed capital dredging associated with Berth 5.
- 5.3 Maintenance of wharf structures and revetments has not generally been required since initial construction of the port (so any maintenance will be infrequent and in accordance with the permitted activity rules C.1.1.7 and C.1.1.8).

### Item 6

- 6.1 The approximate earthworks volumes are as follows:

- Excluding pavement material: 17,300m<sup>3</sup>
- Including pavement material: 28,200m<sup>3</sup> (0.47m pavement depth)

6.2 The approximate earthworks area is 23,210m<sup>2</sup>.

6.3 Please note that while there is sufficient certainty on which to base the various assessments of effects, the earthworks volumes are approximate only and cannot be known until detailed design is completed.

#### Item 7

7.1 Apart from the trigger volumes themselves, none of the other WSP recommendations are proposed as specific conditions of consent. The WSP recommendations (if adopted by Northport) illustrate that a range of potential measures could be employed, both to (i) avoid reaching threshold/trigger traffic volumes, and (ii) manage traffic so that public safety and acceptable level of service ('LOS') is maintained. Appropriate conditions of consent to reflect and respond to these potential traffic outcomes will be proffered by Northport.

#### Item 8

8.1 Notwithstanding that the concept plan shown in Figure 6 of the Navigation Report mistakenly showed the tug berthing facility adjacent to Berth 4 and not Berth 5, the navigation report and associated simulations in the AEE were based on the design proposed in the application. The final design adopted will be subject to further simulation assessment to ensure the safe navigational operation of both tugs and tankers to the approval of the NRC harbourmaster.

#### Item 9

9.1 By reference to the consent application to the WDC, we agree that the following rules in the WDP should be treated as additional reasons for consent (although the application is to construct, operate and maintain a container terminal, not to "breach" certain planning rules):

- TREE-R6 'Removal of public trees' – discretionary activity.
- NH-R3 'Earthworks' – discretionary activity.
- TRA-R11 and TRA-R12 – no specific landscaping or tree planting is proposed within future carparking areas on the port – restricted discretionary.

9.2 Also, for the sake of clarification, the following rules do not give rise to additional reasons for consent:

- PORTZ-R16 – no walkways or public accessways are proposed within the Port Zone and so this rule is not applicable.
- TRA-R13 – ‘Electric vehicle Charging Station Parking Spaces’ – these will be provided for as required.
- TRA-R18 ‘Any major alteration to an existing public road’ – while works in the cul-de-sac head and parking area are likely, they do not fall within the definition of “Major roading alteration” under the District Plan.
- LIGHT-R2 – the current lighting design and implementation meets the LIGHT-R2 permitted activity requirements, and it is expected that lighting on the expanded port will also comply. Furthermore, lighting on the expanded port is required for health and safety reasons and is therefore exempt from compliance with LIGHT-R2 as per Note 2 of this rule.

#### Item 10

10.1 Noting the caveat, in 9 above, we agree that the following additional PRP rules should be treated as reasons for consent:

- C.1.1.23 ‘Hard protection structures associated with regionally significant or core infrastructure’ – discretionary activity.
- C.6.4.6 Stormwater discharges onto or into contaminated land or from high risk industrial or trade premises – discretionary activity (not C.4.4.4 as indicated in the application (AEE)).
- C.8.3 ‘Earthworks’ – earthworks exceeding 200m<sup>2</sup> in the coastal riparian foredune management area - discretionary activity.
- C.8.4.3 ‘Vegetation clearance in riparian areas’ (exceeding 200m<sup>2</sup>) – discretionary activity.

10.2 However, the following PRP rules should not be treated as reasons for consent:

- C.1.1.24 ‘Hard protection structures in significant areas’.
- C.1.1.13 – ‘Dumping (deliberate disposal) of certain waste in the coastal marine area’ – the disposal of dredge material in the CMA is covered by the reclamation consent under Rule C.1.6.3, and the deposition consent under C.1.5.11 (see also the legal opinion in **Attachment 2** with respect to C.1.5.11).
- C.1.5.14 Other dredging, deposition, and disturbance activities – consent is sought under C.1.5.12 and so C.1.5.14 does not apply.
- C.1.6.6 ‘Reclamation in significant areas’ – no reclamation is proposed in significant areas – see legal opinion (**Attachment 2**)

- C.7 'Discharges to air' – discharges to air are a permitted activity under C.7.2.8 (construction) and C.7.2.5 (operations).

#### Item 11

11.1 No reason for consent arises under Rule 34.3(1) 'Land Disturbance within the Riparian Management Zone' of the Operative Water and Soil Plan because the new PRP earthworks rules are no longer subject to appeals and are therefore to be treated as operative under Section 86F of the RMA.

#### Item 12

12.1 Following the December 2022 legislative amendments, the applicant no longer requires consents under the Resource Management (National Environmental Standards for Freshwater) Regulations 2020. This aspect of the application is withdrawn.

#### Item 13

- 13.1 A contaminated site search was ordered from the WDC, however they advised that as the site is an esplanade reserve, there are no records of activities on the HAIL. This is backed up by a review of historic aerial photographs (see **Attachment 3**).
- 13.2 A search of NRC records did not identify any history of activities on the HAIL (see **Attachment 4**).
- 13.3 In regard to the public toilet, this is connected to the reticulated network and so is not an activity on the HAIL (see **Figure 1** below).





Figure 1: WDC wastewater reticulation (Source: WDC GIS)

13.4 No consent is required under the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 as there is no history of any activity or industry on the HAIL being undertaken on this piece of land.

Item 14

14.1 While Northport does not require resource consent for discharges to air, the application documents comprehensively consider the implications of the proposal, including the potential for additional combustion discharges (refer 5.16.4 - 5 of the AEE).

14.2 We note that the ability for the NRC to consider effects relating to the discharge into air of greenhouse gases is subject to s 104E of the RMA, following Parliament's intention that provision should continue to apply to resource consent applications filed prior to its repeal on 30 November 2022. Section 104E expressly provides that regard *must not* be had to the effects of such discharges on climate change.

14.3 The application of s 104E to this application is clear and unambiguous. Northport considers there is therefore *no ability to consider the effects of GHG emissions on climate change*, including with respect to any effects assessment or as effects to be managed through consent conditions, as part of this proposal.

14.4 It is intended to comprehensively address the application of s 104E to the application in legal submissions at the hearing.

14.5 Notwithstanding the correct application of s 104E, Northport is proactive in its approach to carbon emissions and has several initiatives which seek to minimise its impacts. Examples include:

- Investigation of future proofing the facility to provide for Cold Ironing (Shore Power) – this is early stages investigative work that will help inform infrastructure designers to be able to provide for this type of service in the future.
- Electrification of port cranes in the future – the port has procured cranes that have hardware built into them that will allow for future connection to the grid supply, once the supporting infrastructure along the wharf is provided for.
- Northport's electrical department are investigating the installation of solar panels to the main dry store on the port to generate solar energy. These would have the twin benefits of representing a renewable energy source and providing some embedded generation.
- Electrification of port vehicles:
  - 3 site vehicles have been updated with full EV replacements. Future site vehicles will also be EVs where practical.
  - Some future cargo handling equipment, such as large container stacking cranes, will be electrified for normal operations.
- Exploring new opportunities for sustainable trade/shipping.
- Low emission engines selected when diesel power is required.
  - Northport has expanded its selection criteria for procurement of machinery to also consider emissions. This results in newer machinery being purchased, as well as lower emissions engines.
  - Additional investigation is underway to further investigate alternative fuel options, such as hydrogen and biofuels.
- Beneficial reuse of dredged sediment for reclamation will avoid the environmental footprint of discharging the sediment to sea (i.e. no requirement to transport dredged material long distances for disposal, which minimises vessel discharges).
- Northport is working with KiwiRail to facilitate the provision of rail into the port – assisting with the decarbonisation of freight.

- Northport continues to explore and support coastal shipping initiatives – further assisting with the decarbonisation of freight.
- Installation of two debarkers on-site to minimise fumigation of logs (and resultant fugitive emissions).
- Upgrades to buildings and lighting:
  - Sitewide flood lighting being converted to LED – the ports existing lighting infrastructure typically uses HPS lighting, this is being progressively replaced with LED lighting.
  - Internal lighting in offices currently being upgraded with LED lighting and sensor switches to reduce power consumption.
  - Tinting of building windows to reduce heat loss.
  - Northport buildings have replaced all AC units with ozone-safe refrigerants.
- Consideration of staff travel to minimise travel footprint. For example, Northport offers a pool vehicle for staff that live in town in order to more sustainably travel to/from work.
- Northport encourages reuse or recycling where possible, for instance:
  - 'E waste' – computers etc are redeployed and used until failure. Once failure / obsolescence reached, E waste disposed of through recycling facilities.
  - Northport undertakes sitewide recycling of cardboard.
  - Recycling of waste oil.
  - Reuse of asphaltic concrete where possible.
  - Investigation of reuse of stormwater for other purposes.

#### Item 15

15.1 As outlined in the response to item 1, there is no proposal to demarcate areas for specific activities within the the container terminal. It has been established that the proposed container terminal has a functional need to be in the proposed location (see further discussion under items 2 and 55).

15.2 Regarding future rail and road linkages, these are shown on the indicative port design plan prepared by *Buildmedia* (**Attachment 5**). As shown on the plan, road and rail transport is expected to enter and exit Northport from the end of SH15. This aligns with existing road transport arrangements and the rail designation.

15.3 The *Buildmedia* plan also shows an indicative internal rail alignment on the southern and western sides of the proposed container terminal which is considered the most efficient alignment for container operations.

#### Item 16

16.1 Updated visual simulations prepared by *Buildmedia* will be provided in the next 1-2 weeks.

#### Item 17

17.1 Northport is identified as regionally significant infrastructure in the RPS. The RPS states that:

Regionally significant infrastructure is the infrastructure essential for the social and economic functioning of Northland. Northland also needs this type of infrastructure to attract investment and development opportunities as well as help complement and support Auckland and other regions.<sup>1</sup>

Regionally significant infrastructure is inherently important for the regional economy.<sup>2</sup>

Recognise and promote the benefits of regionally significant infrastructure, (a physical resource), which through its use of natural and physical resources can significantly enhance Northland's economic, cultural, environmental and social wellbeing.<sup>3</sup>

17.2 The identification of Northport as regionally significant infrastructure in the RPS recognises the fact that ports are essential economic assets that are a vital part of the transport network and its role in the export and import of goods for the benefit of the community.

17.3 Apart from the obvious role that ports play in the New Zealand economy (as outlined in Section 5.18 of the AEE), the economic benefits of both the existing and expanded port are identified in the ME report submitted with the application, and further reinforced in the Polis report.

17.4 In regard to the existing port, the ME report included with the application AEE identified that the current role of Northport in the regional and national economy is:

- *Northland* - \$438 million GDP and the equivalent of 6,300 jobs.
- *National* - \$907 million GDP and 10,700 jobs.

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<sup>1</sup> Objective 2.3 (explanation)

<sup>2</sup> Objective 3.6 (explanation)

<sup>3</sup> Objective 3.7

17.5 In regard to the regional and national benefits of the proposed expansion, the ME report predicts these according to various trade scenarios explained in the application AEE. The predicted benefits for the BAU and NAI scenarios are:

*Regional economy*

- BAU scenario: \$1,094 million GDP and 14,800 jobs by 2050.
- NAI scenario: \$1,201 million GDP and 16,200 jobs by 2050.

*National economy*

- BAU scenario: \$2.26 billion GDP and 26,300 jobs by 2050.
- NAI scenario: \$5.6 billion GDP and 60,900 jobs by 2050.

17.6 The proposal will also enable wider economic, social and wellbeing benefits for Northland and the nation, for example by improving the efficiency and resilience of the national port network (including by providing improved services for Northland exporters) and acting as a catalyst for a range of supporting business activity in Marsden Point and the region.

17.7 As referenced in the ME report, a report by Polis (July 2022) estimated the expansion could bring an additional \$160m annual GDP to Northland by 2060, supporting an additional ~1,500 jobs (medium scenario). This assumes container annual volumes reaching 400,000 TEU by 2060. Based on the graphics in the report<sup>4</sup>, the estimated additional annual GDP by 2050, is around \$117m, supporting ~1,100 jobs. This assumes container volumes of around 300,000 in 2050.

17.8 In addition to the above, Ports in New Zealand have a role to play at a national level through the Civil Defence Emergency Management Act 2002, where ports are defined as lifeline utilities. In addition to playing a vital role when the country is operating business as usual, when in a state of regional or national emergency ports are often crucial to the response efforts associated with that emergency. This was evident in recent events, including:

- Covid-19
- Cyclone Gabrielle
- Auckland flooding
- Christchurch Earthquake

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<sup>4</sup> GDP growth by decade average (p.34).

#### Item 18

18.1 See Coast and Catchment response (**Attachment 5**)

#### Item 19

19.1 Northport has continued to engage with Mana Whenua since the application was lodged, largely with the assistance of their cultural facilitator/advisor Dee Isaacs. The focus has been on building relationships and understanding, and to scope and develop potential cultural mitigation measures. It is hoped that appropriate cultural mitigation proposals will be included with proposed conditions of consent intended to be circulated prior to the hearing.

#### Item 20

20.1 A final version of the Patuharakeke Te Iwi Trust Board CEA was included with the Patuharakeke submission. The report is attached again for completeness (**Attachment 6**).

#### Item 21

21.1 Te Parawhau has asked Northport not to release a copy of the draft cultural report as it remains incomplete. It is Northport's understanding that Te Parawhau will not be providing a report prior to the hearing.

#### Item 22

22.1 Ngatiwai has advised that they will not be completing a report and will rely on the CEA prepared by the Patuharakeke Te Iwi Trust Board (see **Attachment 7**).

#### Item 23

23.1 Northport continues to develop proposed conditions of consent which it will provide to the Council as soon as it can. This will include proposed wording for changes to the existing Northport consents to be amended under Section 127.

#### Item 24

24.1 The CINZ channel optimisation consents have been considered in each of the supporting specialist assessments. While it appears unlikely that the CINZ consents will be implemented in totality, those consents remain extant and as such, they remain part of the receiving environment and were appropriately considered in the various specialist assessments.

## Hydrodynamics, Morphodynamics, and Dredge Plumes

### Item 25

- 25.1 The calibration and validation for the hydrodynamic model is presented in Section 2.4 in MetOcean Solutions (2018a). MetOcean Solutions (2018b) presents the methods and results for the calibration and validation of the morphodynamic modelling. Both reports have been provided with this response document (see **Attachment 13**) and a summary of the calibration and validation outcomes is presented below. The dredge plumes model uses the hydrodynamic results as base for its simulations and therefore the validation of the hydrodynamics presented in MetOcean Solutions (2018a) is valid for the plume modelling.
- 25.2 Hydrodynamic model calibration and validation was originally undertaken as part of the Whangarei Harbour study for Refining New Zealand, detailed in MetOcean Solutions (2017) (see **Attachment 13**). The SELFE model (latest releases of the model are referred to as SCHISM) was calibrated and validated against both measured current velocities (sampled using a vessel mounted ADCP) and water level measurements at 4 locations within the harbour. The validation of the depth-averaged flows indicates the model is able to replicate the complex tidal hydrodynamics within the Whangarei Harbour environs. Snapshots of the measured and modelled flows for the peak tidal ebb and flood show good agreement, including zones of high flow. Quantile-Quantile plots of measured and modelled current velocities show a good correlation. Additional validation of the hydrodynamic model undertaken against LINZ published tidal elevations at two locations within Whangarei Harbour show the model captures the timing and elevation of the tidal stages well.
- 25.3 The morphodynamic modelling approach consisted of replicating the sediment dynamics over a one-year period by applying an input reduction technique and morphological acceleration factors. The morphological model was validated against bathymetric survey data. It was demonstrated that the numerical model replicated relatively well the dominant morphological processes at Northport. The model showed good skills in reproducing the gradual migration of Snake Bank toward the swinging basin.

### Item 26

- 26.1 The hydrodynamic model used is the open-source hydrodynamic modelling system: Semi-implicit Crossscale Hydroscience Integrated System Model (SCHISM) – previously known as SELFE. It is based on unstructured grid algorithms with the robustness and computational efficiency designed to address various applications across creek-lake-



river-estuary-shelf-ocean scales with high accurate levels. It employs the semi-implicit time stepping with Eulerian-Lagrangian treatment of advection with an implicit transport solver using two limiter functions which have been shown to work with different Courant numbers. More details of the model are presented in the reports MetOcean Solutions (2017) and MetOcean Solutions (2018a) (attached with this response document). The hydrodynamic currents results, presented in MetOcean Solutions (2022), were extracted as depth averaged.

Item 27

27.1 Details on the wind data input reduction are presented in MetOcean Solutions, 2018b. The reduction of the wind climate was performed averaging both zonal and meridional components of the wind velocity at 10 m associated with the wave events of each bin. Wind data were extracted from a 12 km WRF atmospheric hindcast data produced by MOS and validated at Marsden Point (Appendix C – MetOcean Solutions, 2018b).

Table 2.6 Wind classification based on an annual wind climate defined from hindcast data at the delta entrance over 2016.

class	Wind Speed (m.s <sup>-1</sup> )	Wind direction (coming from)
1	1.09	358.11
2	0.21	153.86
3	2.86	241.21
4	3.32	289.84
5	2.36	27.67
6	0.97	79.09
7	5.48	223.59
8	6.18	293.94
9	3.81	21.86
10	0.81	68.33
11	6.11	220.03
12	7.73	303.60
13	8.63	49.04
14	3.20	99.76
15	11.24	150.82
16	10.99	293.99

Item 28

28.1 MO has confirmed that long-term morphological validation was completed for the input reduction. Details on the morphological model validation is presented in MetOcean Solution (2018b) (see **Attachment 13**). The calibration and validation of the morphological model was achieved by qualitatively and quantitatively comparing measured and modelled morphological changes.



- 28.2 Single beam survey data from 2007 to 2014 were examined to better understand the infilling process occurring within the swinging basin at Northport. The Delft3D morphological model was then calibrated for changes observed between 2016 and 2017. Qualitatively, model results show a good agreement spatially with the measured morphological changes, with the model capturing the migration of Snake Bank into the swinging basin and the succession of erosion and accretion along the southern margin of bank (see Figure 3.11 below).
- 28.3 The high degree of stability observed elsewhere in the channel was relatively well reproduced in the predictions, as is the strong activity over the deep area adjacent to Motukaroro Island. Quantitatively, the accretion of sand from the tip of Snake Bank into the swinging basin by bedload transport is somewhat under-estimated. It is likely that a lack of resolution in the model grid resulted in decreasing bed slope gradients which influenced greatly the bedload component of the sediment transport. Irrespective, within the order of magnitude of errors expected for hydrographic surveys, the model showed a good capability in predicting realistic volumetric infilling rates within Areas 1 to 3; +8,128 m<sup>3</sup> and +3,658 m<sup>3</sup>, respectively (see Table 3.3 below).
- 28.4 Within Area 2, the morphological model predicted a similar order of magnitude in the total bed erosion to that observed (i.e. 2,500 m<sup>3</sup> and 1,600 m<sup>3</sup> respectively, see Table 3.3 below). The successful validation of the morphological model indicates that the modelling approach is applicable for examining both the existing morphological evolution and the response of the system to the proposed dredging and reclamations.

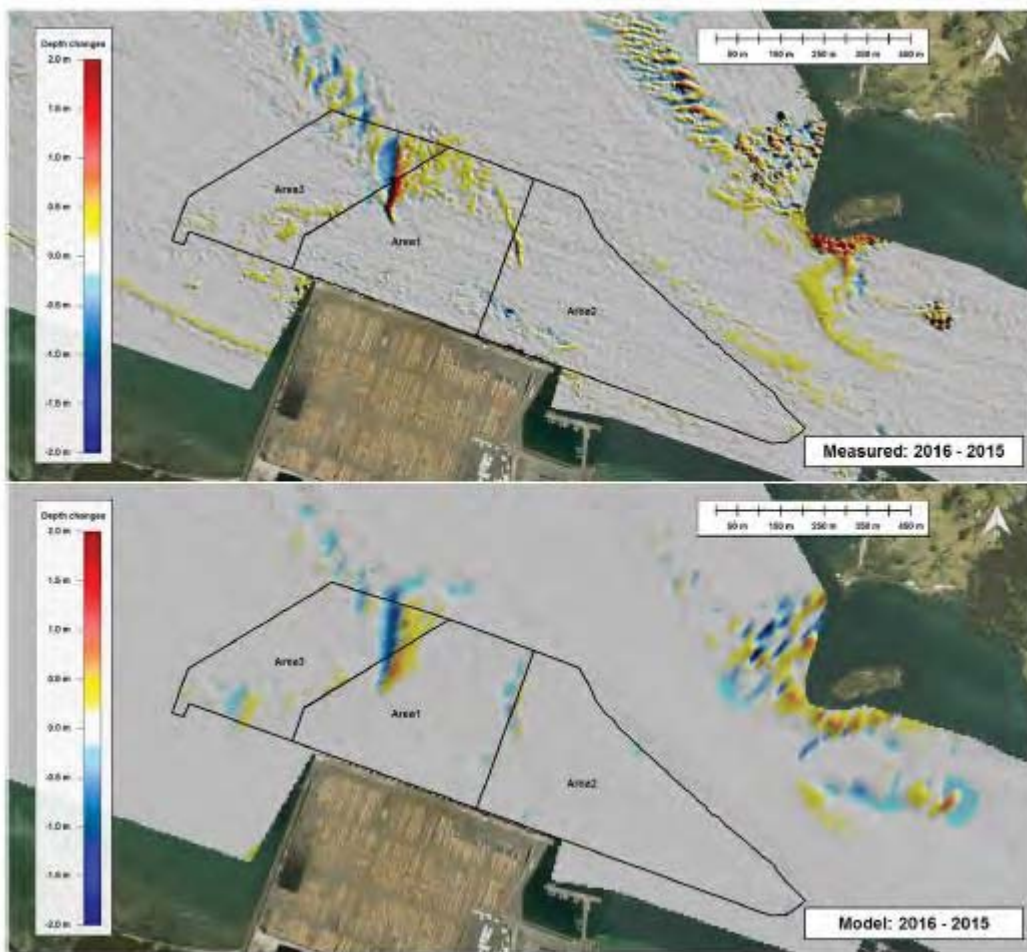


Figure 3.11 Measured (top) and model (bottom) depth change after one year from 2016 to 2017.

Table 3.3 Volumetric change from 2016 to 2017 estimated using model outputs and bathymetric survey data.

Area	Volumetric change between 2016 and 2017 [m <sup>3</sup> .yr <sup>-1</sup> ]	
	Measurements	Model
Area 1	+6,260	+8,128
Area 2	-1,597	-2,489
Area 3	+3,973	+3,658

## Transport

### Item 29

29.1 The updated CAS analysis is included in the WSP response (**Attachment 8**).

### Item 30

30.1 See WSP response (**Attachment 8**).

### Item 31

31.1 See WSP response (**Attachment 8**).

### Item 32

32.1 See WSP response (**Attachment 8**).

### Item 33

33.1 See WSP response (**Attachment 8**).

### Item 34

34.1 See WSP response (**Attachment 8**).

### Item 35

35.1 See WSP response (**Attachment 8**).

### Item 36

36.1 A plan showing a potential additional carparking area is included in **Attachment 9**.

### Item 37

37.1 Northport currently operates a vehicle booking system through its website. This system ensures that there is a consistent supply of trucks to the port during container dispatch, eliminating congestion at the port and consequently congestion or peaks on the roading network. It also prevents trucks from using the roading network when they are not able to be serviced by the port due to container release requirements not being met.

37.2 While the vehicle booking system is used in normal receive and dispatch times currently, due to container volume, the window for receive and dispatch can and would be expanded to manage the higher volumes of freight handling in the future.

### Item 38

38.1 Northport would encourage the supply chain to operate 7 days a week to reduce truck movements by:

- Engaging with the appropriate supply chain representatives and informing them that the port will be expanding from a 6 day operation to a 7 day operation.

- Taking bookings through the vehicle booking system.
- Managing the number of time slots available in peak times to smooth out traffic over a 6 or 7 day week.

#### Item 39

39.1 Carpooling is a measure already employed by Northport and other port user companies. Northport employees generally finish their shifts at the same time, making it easy to coordinate the use of company vehicles for carpooling. The cost of fuel is an added incentive to carpooling.

#### Item 40

40.1 Cruise ships do not typically disembark before 9am, meaning that associated traffic will be outside peak times.

40.2 Northport meets with the Waka Kotahi regional team on a monthly basis to discuss forecast cargo peaks and likely traffic volume peaks. This meeting is used to assess network serviceability, forecast maintenance, and to look for opportunities to minimise congestion on the highway network. It is anticipated that this type of planning exercise will continue and will include the WDC roading infrastructure team as well during the cruise season.

#### Item 41

41.1 Cruise ships can already visit the existing Northport facility (this is a permitted “port activity” under the WDP Port Zone). Any and all cruise operations will be conducted in consultation with local council representatives.

41.2 Nevertheless, it is in Northport's interest to employ management measures to reduce peak hour traffic volumes as this will avoid potential intersection upgrades. However, no specific conditions of consent are proposed other than those conditions relating to the trigger thresholds and the subsequent intersection upgrade requirements should they be exceeded.

### **Underwater noise**

#### Item 42

42.1 See updated assessment completed by Styles Group (**Attachment 10**).

#### Item 43

43.1 See updated assessment completed by Styles Group (**Attachment 10**).

#### Item 44

44.1 See updated assessment completed by Styles Group (**Attachment 10**).

### **Stormwater**

#### Item 45

45.1 See the updated Hawthorn Geddes report (**Attachment 11**).

### **Air Quality**

#### Item 46

46.1 No boilers or furnaces are proposed. The activities are those associated with a container terminal as detailed in Item 2 of this RFI response.

#### Item 47

47.1 The AQMP is part of the Construction Environmental Management Plan (CEMP).

47.2 Air quality conditions will be included in the proposed conditions of consent submitted prior to the hearing.

#### Item 48

48.1 See PDP response (**Attachment 12**).

#### Item 49

49.1 See PDP response (**Attachment 12**).

### **Coastal Processes**

#### Item 50

50.1 The requested Met Ocean reports are provided in **Attachment 13**.

#### Item 51

51.1 The proposed bird roost will be constructed from the proposed dredge material (sand), or a similar land-based grade and quality of sand.

## Navigation and Operational Safety and Marine Risk Assessments

### Item 52

#### *Sub-item (a)*

- 52.1 Northport currently handles container vessels up to 294m in length<sup>5</sup>, with ships as large as 347m already calling at other New Zealand ports. The demand for ports to accept these larger vessels will inevitably increase as shipping lines continue to look for efficiencies of scale, putting pressure on ports internationally to receive these ever-growing vessel sizes.
- 52.2 Northport expects that as the international shipping fleet continues to evolve, there will be an expectation it will need to accept these larger vessels in order to remain competitive and capable of offering a viable facility to the shipping industry. Based on the current channel configuration, as well as the predicted container handling and throughput, Northport is satisfied that the 320m design vessel is appropriate for the foreseeable future.

#### *Sub-item (b)*

- 52.3 Northport has conducted preliminary simulations of larger containerships LOA 320m and LOA 366m. From the studies it is considered that a 320m LOA Draft 14.5m containership is feasible to transit the existing dredged channel. However, before transit of a vessel of LOA >300m can take place the following control measures will be applied:
- Additional simulation will be carried out with subsequent pilot training on a full mission simulator in either Auckland or Brisbane to verify preliminary simulation studies.
  - Further review of the environmental limitations for the transit and use of the swing basin.
  - Additional simulation on the towage requirements for swinging vessels greater than 300m in the swing basin under differing environmental limitations. Provision of escort rated tugs will be considered for the transit.
  - Review of the manoeuvring area between buoys #8 and #11 with a view to optimization of the position of the buoys and potential expansion of the manoeuvring area. Preliminary work has been done on this and to date there is no requirement for any additional dredging.

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<sup>5</sup> Antwerp Bridge, Tianjin Bridge

52.4 To be clear, the current application does not include, nor is it predicated on, any channel dredging or realignment.

*Sub-item (c)*

52.5 Section 3.11 of the coastal processes assessment sets out the historic context of the adjacent coastal edge and harbour area to the existing Northport reclamation, both by review of historic aerial photographs and previous morphological modelling studies. The report documented the observed changes to the west and east of the reclamation.

52.6 The morphological modelling (Figure 3-14 of the coastal process assessment report) and the measured seabed change based on hydrographic surveys from 2014 to 2017 show there is existing seabed changes adjacent to the CINZ berthing area with greater levels of change seaward (east) of the berthing area and smaller amounts of change to the west. The data from the measured seabed changes show changes along the channel edge of around 1m to 1.5m immediately to the east of the berthing area (i.e. around 0.2 to 0.4m/yr) and around 0.25 to 0.5m immediately to the east (i.e. 0.06 m/yr to 0.13 m/yr). The range of these values indicates the existing natural accumulation that is occurring in this vicinity.

52.7 Modelling of the change in peak tidal currents as a result of the proposed eastern reclamation (see Figure 5-3 of the coastal process assessment report) shows an area of reduced velocity east of the reclamation that extends into the CINZ berthing area, with possible depth changes of around 0.1m to 0.2m in a 5 year period (Figure 5-5 of the coastal processes assessment report), so in the order of 0.02 m/yr to 0.04 m/yr. These values are lower than the natural system values derived in the previous paragraph, showing an effect of the proposed extension, but smaller than the natural system values.

52.8 In summary, the modelled values are an indicator of the possible influence of the proposal on accretion in this area, but natural variability and accretion from natural processes are also likely and of greater magnitude. While these values show some sense of relative impact, the actual system operating in this area is highly dynamic and is subject to single extreme events as well as slower typical trends. The ongoing monitoring of this area, and management responses necessary to maintain navigable safety will continue to be employed.

52.9 Whangarei Harbour (including Northport) has a robust Safety Management System for controlling the movement of all deep draft vessels. Hydrographic surveys are undertaken annually through the lower harbour area, especially the southern side of

the harbour in the vicinity of the CINZ jetties and Mair Bank. Additional surveys have been undertaken where there is evidence of accretion in the channel such as in March 2021 (accretion 0.5m).

- 52.10 The latest survey information is fed into the dynamic under keel clearance system (DUKC) to verify the deepest draft permissible to allow transit of any ship. Northport provides the DUKC system which is operated by NorthTugz Pilots. NRC, through the Harbourmaster, provides the navigation safety oversight of the process which is managed through six weekly Harbour Safety Meetings and with a Harbourmaster on-site at Northport.
- 52.11 Historically accretion is a slow process in the vicinity of the Northport turning basin and the CINZ berths. This has been managed through controlling the nominated least depth in the DUKC system and conducting a single maintenance dredging campaign in 2019. Accretion in the shipping channel has occurred in the vicinity of Mair Bank and Buoy 17. However, the strong tidal streams have tended to scour clear the accumulations of sand within a month. This is monitored by regular surveying and if necessary, controlling the nominated least depth. Critically the accretion has tended to occur in places where the ships are following a straight-line path with tug assistance, and speed can be carefully controlled.
- 52.12 The most significant risk occurs at the Whangarei Harbour bar west of the fairway buoy. This area is subject to significant wave action and any shallowing of the bar is monitored and allowed for in the DUKC program, which considers ship type, predicted wave action, stability of the ship and speed of the ship. The risk is well controlled and is evidenced by no grounding incidents since the DUKC system was fully installed in 2003.
- 52.13 Future trends in shipping indicate the maximum draft of ships transiting Whangarei Harbour will be less than 14.5m. Northport is seeking to transit in the future up to 320m containerships whose operational draft is less than 14.5m. From 2021 Northport has accepted ships to 294m which have all been safely managed. It is considered the safety management system will be able to manage the safe transit of ships despite the risk of possible accretion in the shipping channel or the vicinity of Northport and CINZ berths and jetties.

### Item 53

- 53.1 While a navigation risk assessment was carried out for the project, a specific marine spill risk assessment was not. This is because the Northland Regional Council (via the harbourmaster) is the primary agency responsible for the preparation of a regional marine oil spill contingency plan pursuant to the Maritime Transport Act 1994 and the



Marine Protection Rules and consistent with Maritime New Zealand's New Zealand Marine Oil Spill Readiness and Response Strategy.

#### Item 54

- 54.1 Northport's navigation risk assessor Bruce Goodchild has advised that the proposed expansion will not result in a change from the existing Tier 2 (regional) status, and that any changes to the Tier 2 plan will be at the discretion of the harbourmaster.

### **Coastal Policy Framework; Functional Need, Benefits and contribution, and Necessity**

#### Item 55

- 55.1 The specific provisions for reclamations are found in the NZCPS and PRP (note the RPS is silent in respect to reclamations). The provisions are consistent throughout the hierarchy of documents, as identified below.

#### ***Availability of land***

- 55.2 The relevant policy provisions require reclamation to be avoided unless land is not available for the proposed activity. Relevant provisions are as follows (note the RPS is silent in respect to this matter and the PRP gives effect to the NZCPS):

#### New Zealand Coastal Policy Statement

Policy 10 of the NZCPS states that reclamation should be avoided *inter alia* unless:

- a. land outside the coastal marine area is not available for the proposed activity;

#### Proposed Regional Plan

Policy D.5.20 of the PRP repeats Policy 10(a) of the NZCPS being:

Reclamation of land in the coastal marine area shall be avoided unless all the following criteria are met:

- 1) land outside the coastal marine area is not available for the proposed activity;

- 55.3 As discussed under the functional need response (see paras 55.6 – 55.7 below), the location of the container handling area is dependent on the location of the berth. It is not practicable nor viable to locate this area anywhere other than adjacent to the berth face.

- 55.4 The locational needs of the container handling area relative to the berth face means that any discussion about the availability of land elsewhere for this purpose is largely academic. However, for completeness, Northport does not own the immediately adjoining land behind the proposed expansion which is owned by Channel Terminal Services Ltd. The land to the south of Northport (west of the Channel Terminal Services

Ltd land) is owned by Marsden Maritime Holdings Ltd. While this entity has an ownership interest in Northport Ltd, it is a separate entity, 26.5% of which is publicly owned via the NZX, 19.9% by Port of Auckland, and 53.6% by the Northland Regional Council.

55.5 In summary, the container handling area (which is integral to the operation of a container facility) must be located immediately proximate to the berth face, which self-evidently must be located in the CMA. The other constituent parts of the container terminal are also required to be located in the same area. Even if this were not the case (which it is) there is no land outside the CMA that can be used: Northport does not own the land behind the proposed expansion, or the land behind the existing port to the west. Accordingly, the proposal is entirely consistent with Policy 10(a) of the NZCPS and Policy D.5.20(1) of the RPS.

### ***Functional need***

55.6 The policy framework in respect to functional need is found in the NZCPS, RPS and PRP. Relevant provisions are as follows:

#### New Zealand Coastal Policy Statement

Policy 10 of the NZCPS states that reclamation should be avoided *inter alia* unless:

b. the activity which requires reclamation can only occur in or adjacent to the coastal marine area;

#### Regional Policy Statement

Policy 4.8.1(1) of the RPS states that activities that occupy the CMA should only be considered where *inter alia*:

(a) They have a functional need to be located in the common marine and coastal area, unless the structure, use or activity is consistent with Policy 4.8.1(2);

Except that:

(2) Occupation of space and structures (and their use) that are contrary to Policy 4.8.1(1) (a) and (b) may be appropriate where they will make a significant positive contribution to the local area or the region.

#### Proposed Regional Plan

Policy D.2.9 of the PRP requires regard and appropriate weight to be given to *inter alia*:

3) any demonstrated functional need for the activity, and

5) 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 effects, and

Policy D.5.20 of the PRP seeks to avoid reclamation unless *inter alia*:

2) the activity which requires the reclamation can only occur in or adjacent to the coastal marine area;

The PRP defines “functional need” as follows:

**Functional need**

The need for a proposal or activity to traverse, locate or operate in a particular environment because the activity can only occur in that environment.

Note: This excludes dwellings and guest houses, hotels, motels, cafes, restaurants, and shops.

55.7 The functional need for the container terminal to be in the proposed location is summarised in **Attachment 1** and under Item 2.

***Regional/national benefits***

55.8 The policy framework in respect to regional and national benefits associated with reclamation is found in the NZCPS and PRP. The relevant provisions are as follows:

New Zealand Coastal Policy Statement

55.9 Policy 10 of the NZCPS states that reclamation should be avoided *inter alia* unless:

d. the reclamation will provide significant regional or national benefit.

Proposed Regional Plan

Policy D.5.20 requires that reclamation should be avoided unless *inter alia*:

4) the reclamation will provide significant regional or national benefit.

55.10 The regional and national benefits of the proposed expansion were included in the ME report included with the application AEE, and further confirmed in the Polis report. These benefits are summarised in the response under Item 17. The summary confirms that there are significant regional and national benefits associated with the proposed expansion. Accordingly, the proposal is consistent with Policy 10(d) of the NZCPS and Policy D.5.20 (4) of the PRP.

***Necessity***

55.11 Item 55 of the RFI also requests further clarification on the actual or foreseeable demand for a 500,000 TEU/annum container terminal given the 35-year timeframe of an RMA coastal permit and the 50-year design timeframe adopted by Northport.

- 55.12 While the coastal policy framework clearly requires a consideration of functional need (as traversed above), there is no policy imperative that ties the consideration of functional need to time related demand or necessity, the expiry date of consents, or the design life of structures.
- 55.13 Resource consent expiry dates are not a determining factor in the long-term planning of port infrastructure. For many reasons, including the level of investment, the nature of structures (and reclamation), construction timeframes, the impetus required for significant changes to the status quo (including planning, design and consenting timeframes), and the ongoing role that shipping plays in facilitating international trade, ports' planning horizons considerably exceed the maximum resource consent expiry date for regional consents available under the RMA.
- 55.14 The policy framework itself supports taking a long-term view to the provision of infrastructure, sufficient to meet the reasonably foreseeable needs of the community (in this case anticipated freight demand over a 50 year period). Relevant provisions are set out below (emphasis/underline added).

#### New Zealand Coastal Policy Statement

##### **Policy 9: Ports**

Recognise that a sustainable national transport system requires an efficient national network of safe ports, servicing national and international shipping, with efficient connections with other transport modes, including by:

- a. ensuring that development in the coastal environment does not adversely affect the efficient and safe operation of these ports, or their connections with other transport modes; and
- b. considering where, how and when to provide in regional policy statements and in plans for the efficient and safe operation of these ports, the development of their capacity for shipping, and their connections with other transport modes.

#### Regional Policy Statement

##### **Objective 3.8 Efficient and effective infrastructure**

Manage resource use to:

- (a) Optimise the use of existing infrastructure;
- (b) Ensure new infrastructure is flexible, adaptable, and resilient, and meets the reasonably foreseeable needs of the community; and
- (c) Strategically enable infrastructure to lead or support regional economic development and community wellbeing.

Explanation:

....

Infrastructure should, as a principle, have sufficient flexibility, adaptability and resilience to meet the reasonably foreseeable needs of the future. Part of this objective therefore seeks to help future-proof infrastructure for long-term use and ensure it can more efficiently adapt to changing technological, operational, economic, environmental and social conditions.

....

#### **RPS - 5.2.2 Policy – Future-proofing infrastructure**

Encourage the development of infrastructure that is flexible, resilient, and adaptable to the reasonably foreseeable needs of the community.

#### **RPS - 5.2.4 Method**

The regional and district councils shall, through regional and district plans, use assessment criteria or other suitable provisions to ensure that when a resource consent application, plan change, or notice of requirement for development is proposed that includes new or upgraded community infrastructure or infrastructure proposed by a network utility operator, weight will be given to the following:

(a) The extent to which infrastructure can be operated, maintained, and upgraded efficiently with minimal adverse effects to meet the reasonably foreseeable needs of future generations (for example, to meet change as anticipated by regional / sub-regional growth strategies);

(b) The extent to which the infrastructure uses measures to achieve efficient use of resources;

(c) Where practicable, the potential for infrastructure to co-locate with, or accommodate, other infrastructure to achieve efficiencies; and

(d) Where multiple parties are involved, the extent to which providers propose to work together to co-ordinate activities and / or develop infrastructure implementation plans.

In addition, in conjunction with Method 5.1.5(1)(a), all resource consents, notice of requirements and plan changes should be assessed against the Regional Form and Development Guidelines contained in Appendix 2.

55.15 As per the discussion on functional need in **Attachment 1**, TBA Group has confirmed that a 700m, two berth container terminal is required to handle the predicted container volume at Northport (500,000 TEU within the next 50 years) in order to achieve acceptable service times.<sup>6</sup> Therefore, the required berth length is the determining factor for the eastern extent of the reclamation.

55.16 The proposed container handling area behind the berth is required for the reasons outlined in **Attachment 1**. The fact that it may be capable of handling up to 630,000 TEU at full build out following conversion to RTGs or Auto RTGs, simply provides for the 'high' planning scenario of 700,000 TEU (therefore providing some of the recommended 25-

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<sup>6</sup> The medium-high scenario considered by both ME and Polis Consulting Group predicted Northport to handle in excess of 400,000 TEU by 2060 (approximately 37 years from today). If road/rail improvements occur, Polis predicted container volumes could reach 700,000 TEU by 2070 (around 47 years from today). Northport adopted 500,000 TEU as being "reasonably foreseeable" within the next 50 years.

40% reserve capacity<sup>7</sup>). However, above all else, it reflects the practical “tie in” to the adjoining land.

55.17 In summary, there is no policy requirement to demonstrate necessity in the sense suggested in item 55 of the RFI. To the contrary, there is express policy support in the NZCPS, RPS and the PRP that encourage taking a “flexible, adaptable and resilient” long-term view to the provision of infrastructure, especially where it meets the “reasonably foreseeable” needs of the community. The proposed expansion aligns with this policy direction and, for the reasons previously outlined, the coastal policy framework for reclamations in general.

## **Evaluation of alternatives**

### Item 56

#### *Sub-item (a)*

- 56.1 Unlike linear infrastructure where route selection can be assisted by employing methods such as multi-criteria analysis (MCA), the potential options for the expansion of Northport to provide for container handling are narrowly constrained by clear and obvious environmental and practical limitations/factors. These include the location and design of the existing port, the berth length required to provide sufficient capacity in response to predicted demand, the location of naturally deep water, and the proximity of environmentally sensitive areas (including SEAs and Blacksmiths Creeks and Snake Bank).
- 56.2 Methods such as MCA ultimately trade-off one criterion against another, with a high degree of subjectivity in the weighting assigned. Given the characteristics of the project and the site, Northport instead settled on a design that had the least environmental impact, while still achieving the objectives of the project (including related functional need) and consistency with the statutory planning documents. While there were obvious functional and practical considerations, minimising environmental, cultural and social effects was a primary focus.
- 56.3 As set out in Section 9 of the Issues and Options report (Appendix 2 of the application), other options considered included a new port in a new location and extending the footprint in another direction, including towards the west. All of the other options had potential environmental effects greater than those of the final

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<sup>7</sup> Port Designers Handbook, 2018 (Fourth Edition)

proposal. No trade-offs between functional/practical requirements and environmental effects were ultimately necessary.

*Sub-item (b)*

- 56.4 As outlined in the functional need document in **Attachment 1**, the basic design principles of a container terminal require that a berth is provided that is at least as long as the largest design vessel. The number of berths (and therefore the overall berth length) is based on the predicted container freight that will be handled by the port, and the associated berthing capacity required to accommodate ships running to a pre-determined schedule.
- 56.5 Immediately behind the berth is a berth apron which needs to allow sufficient space for container cranes to operate.
- 56.6 Adjacent to the berth apron is the container handling/short term storage area. A range of factors are relevant to the area required, including the number of ships expected, the number of containers handled on/off each ship, the ship call duration, and the average time containers spend on the port (dwell time)<sup>8</sup>. The container handling area must include transport facilities, including truck loading bays and a rail spur with loading/unloading facilities. It also needs to cater for ancillary facilities, such as maintenance buildings, security gates, weighbridges etc.
- 56.7 The shape and extent of the reclamation was also determined cognisant of other constraints such as the proximity of the CINZ jetty. To that end, while the length of the berth sought in this application is workable, it has to work within the constraints of the CINZ facility.
- 56.8 Northport took advice from experts in port design, as well as drawing on experience from within the company, to confirm that the constrained port footprint that is now the subject of this application would be fit for purpose from an operational perspective. The answer was that it is, but only just.
- 56.9 Noting that the required berth length is the determining factor, any reduction in the reclamation behind it would impact on the efficient functioning of the terminal, with little to no reduction in environmental effects. A reduction in extent would further constrain the ability of the port to meet the predicted Northland and North Auckland future freight needs. This would be a sub-optimal outcome considering that the

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<sup>8</sup> Dwell time is a measure of the efficiency of the terminal to move the container through the terminal, and is often constrained by external factors such as the road and rail network.

overall rationale for the project isto accommodate the future freight task with a purpose-built facility.

*Sub-item (c)*

- 56.10 In assessing the construction sequence of the proposed container terminal as part of the options assessment, Northport has reviewed its current facility, including the balance of the consents held, taking note of the staged approach that has been utilised to date. The current facility is 570m long and has reached the theoretical berth capacity for the type of facility that it is. The balance of 270m remains consented, but not constructed.
- 56.11 Northport is currently exploring giving effect to approximately 175m of this consented berth, providing for a total berth length of 745m. As part of the berth build, it would also reclaim approximately 3.4ha of seabed to provide for container handling. This would leave a balance of 95m of berth to be constructed under the existing Berth 3 and 4 consents. The proposed 175m extension to the facility would mean that the port could handle a regular container shipping service, while still accommodating two log vessels (or similar) at the same time. Currently this is not possible, meaning that a container ship needs to overhang the berth (a practice that happens, but it means that cargo cannot be reached from the port deck, as well as being limited by environmental constraints).
- 56.12 With the remaining 95m (consented), and the proposed 250m (Berth 5), the length of remaining berth would be 345m. The ultimate design vessel is 320m. Therefore, when including the safety gap between berthed vessels of 25m, the 345m berth is the next step change once the 175m extension is completed.
- 56.13 The decision to proceed with the construction of Berth 5 will not be taken lightly. A strong business case will be required, with good confidence that the demand for the facility is required and will be supported. It will also require a good understanding of the constraining factors, such as road and rail, and the likelihood of infrastructural development to address those constraints going ahead (if they have not done so already).
- 56.14 The KiwiRail spur line from Oakleigh to Marsden Point is currently being reviewed, with progress being made to acquire the land required under the designation, as well as geotechnical work and design work. It is therefore possible that, with Northport first giving effect to the 175m extension explained above, the rail spur to Marsden Point is constructed due to the cargo demand generated by that expansion. Therefore,



when looking to expand the port facility for the Berth 5 project, the rail line is unlikely to be a constraint.

- 56.15 In addition to the railway spur, Waka Kotahi is nearing completion on the first stage of the Ara Tūhono project (Puhoi to Warkworth), and is currently in the planning phase of the second stage (Warkworth-Wellsford). There is also a suite of safety improvements planned between Wellsford and Whangarei.
- 56.16 While the focus of the constraints has been to review the impact of road and rail, coastal shipping will also play a part in the overall logistics chain in the future, which is another factor that needs to be considered.

*Sub-item (d)*

- 56.17 A well-functioning 3 berth port has an optimum berth occupancy rate of between 55%<sup>9</sup>. The existing Northport facility already has a berth occupancy rate of 65% indicating that the port has reached its existing capacity, and that congestion is affecting port users.
- 56.18 Some internal reconfiguring is likely over the next 12-15 years to enable expansion of the container terminal<sup>10</sup> in accordance with the existing consents while forecast wood volumes reach the bottom of the cycle and then recover. Once wood volumes again return to historic levels, this will need to be accommodated, in addition to the container terminal. This will be a potential trigger for further expansion in accordance with the consents now sought.
- 56.19 The proposed expansion (Berth 5) requires reconfiguration of the existing facility to accommodate the required area for the container terminal, including providing for rail access. A further reduction in the area available for other (non-containerised) freight will lead to increased costs, delays, and an inefficient supply chain to the point that it is unsustainable.

## **Marsden Maritime Holdings**

### Item 57

- 57.1 Northport is owned by two companies, being Marsden Maritime Holdings Ltd (MMH) and Port of Tauranga Ltd (POT). The ownership structure is a Joint Venture, both owning a 50% share. MMH owns approximately 150ha of commercial, light industrial

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<sup>9</sup> Port Designers Handbook, 2018 (Fourth Edition)

<sup>10</sup> Consultants from TBA have modelled this interim concept and have confirmed that it could cater for approx. 130,000 to 160,000 TEU/annum.

and port zoned land immediately abutting and to the southwest of Northport's southern boundary.

- 57.2 Under the Joint Venture agreement, MMH provides approximately 10ha of land to Northport for its stormwater treatment and retention.
- 57.3 The Crown holds the title to the existing port reclamation. The Crown (as Lessor) has granted a lease of this land to MMH (previously known as Northland Port Corporation (NZ) Limited) as Lessee. Pursuant to the terms of this lease, immediately following its execution, the interest of the Lessee was assigned from MMH to Northport Limited. This is captured in the 'Memorandum to Lease' document as follows – *“Following execution of this Lease, the Lessee will assign its interest in the Lease to Northport. This is because, as the introduction makes clear, NPC and the Department of Conservation (as the Minister’s agent) have been engaged in negotiations for many years, pre-dating the formation of Northport. It is the latter company however that now owns and operates the port facility and its infrastructure.”* Therefore, the Crown leases the reclaimed land to Northport Limited.
- 57.4 MMH and Northport are separate businesses and operate independently. While there is a common link between the two through the MMH 50% ownership of Northport, they both have separate management teams and separate staff. While two MMH directors sit on the Northport Board, the direction for the two companies is different. Therefore, the benefit of MMH and its landholding is not through its ability to supply land to the port to operate as a container terminal, but rather its ability to support the ports growth by providing land for users of the port; exporters, importers, distribution centres, warehouses, vanning/devanning facilities, car storage and import facilities, and value-added facilities, etc. This is reflected in the WDC zoning which has a 2-tiered approach to the 'Port Zone', focusing on port activities on the Northport owned land (Port **Operations** Area), and more ancillary activities located on the adjoining MMH land (Port **Management** Area).
- 57.5 For operational reasons, locating container terminal port activities outside the land owned by Northport is impractical and inefficient. As covered in other parts of this RFI response, the well-established design principles for container terminals all around the world dictate, most importantly, that the berth at Northport must be extended to cater for additional and larger ships needed to cater for the predicted demand. As outlined in **Attachment 1**, without the proposed berth extension the berth occupancy factor would not provide an acceptable level of service for vessels.

57.6 Northport has reviewed the proposed design over many years (the original Vision for Growth was publicly released in 2017, with a significant amount of expert and industry input and various alternatives reviewed. The proposed container terminal is based on a concept design that would provide for the safe and efficient operation of a terminal catering for at least 500,000 TEU, with the potential to increase that using the same terminal size, but through upgrades to the type of handling equipment used to handle containers in the terminal (thus future proofing the facility).

### **Design life of structures**

#### Item 58

58.1 NZCPS Policy 10.2 states that, when considering the form and design of a reclamation, regard should be had to the effects of climate change over at least 100 years (including the projected effects of sea-level rise). RPS Policy 7.1.3 refers to flood hazard areas and is therefore not relevant to the proposed expansion. Policy D.6.6 states that new hard protection structures must be designed to take into account the coastal hazard risk and how it might change over a 100-year time-frame (including the projected effects of sea-level rise). None of the aforementioned policies refer to “design life” in the context that it is used in the WSP Concept Design Report.

58.2 In any event, Northport considers the design life of port structures to be a matter that can and should be appropriately dealt with pursuant to the Building Act 2004 and/or Civil Defence Emergency Management Act 2002 (and associated regulations). Accordingly this does not appear to represent a matter that requires express consideration or control pursuant to the RMA, including via conditions of consent.

58.3 Northport will present further evidence on this matter at the hearing.

### **Esplanade Revocation and Roading Approvals**

#### Item 59

59.1 There will be an additional, separate, process associated with cancelling the esplanade reserve. Northport has sought to manage this to the greatest extent practicable by consulting early and on an ongoing basis with the WDC Parks Division. At this stage no road stopping is proposed.

59.2 The need for additional approvals beyond the RMA process is not uncommon particularly for a project of this size and nature. The requirement for such approvals does not represent an impediment to the consideration or grant of resource consents under the RMA. In generally all cases, it is prudent to conclude the RMA process and

obtain resource consents before seeking other required approvals, because of the certainty that this brings to the subsequent processes.

## **Marine Ecology Assessments – Systems Scale**

### Item 60

60.1 See the response from Coast and Catchment (**Attachment 5**).

## **Economics**

### Item 61

61.1 The Polis report forms part of the evidential basis for the economic impacts of the proposal, both because it was referenced in the 'Issues and Options' report submitted with the application, and because it has been referred to in submissions.

### Item 62

62.1 See the response by ME (**Attachment 14**).

## **RFI dated 2 February 2023**

### Item 1

1.1 Consultation with Patuharakeke Te Iwi Trust Board revealed the cultural importance of retaining the coastal access from the end of Ralph Trimmer Drive to the eastern end of the beach and around the remaining coastal margin of the Poupouwhenua.

1.2 Aside from the access provision, the proposed recreation mitigation is based on advice from Northport's recreation expert based on his observation of public use of the affected area (including various surveys and discussions with members of the public and beach users), and with subsequent design input from Boffa Miskell.

### Item 2

2.1 In addition to undertaking careful scoping and design which seeks to internalise the effects of its proposed development as far as practicable, Northport has sought to focus mitigation opportunities onsite where possible. The rationale for the proposed on-site recreation mitigation was to re-create as many of the recreational opportunities that currently exist to the east of the port. These include:

- Public access to coastal areas to the east.

- Replacement fishing pontoon.
- Picnic/reserve area.
- Swimming opportunities.

2.2 Northport has also considered (and continues to consider) off-site mitigation opportunities, particularly through its discussions with the Parks Division of the WDC, the Department of Conservation, and ongoing consultation with Mana Whenua. Such opportunities will depend on practical issues such as landowner approval, access, and public safety.

### Item 3

3.1 Northport has considered the safety implications of the proposed swimming area and fishing platform at the eastern end of the container terminal. Likely management responses being considered by Northport include locating the larger tug vessels at the northern end of the berthing facility away from the public interface and safety signage. The final design of the tug berthing facility will also be subject to a final safety audit process.

**Attachments:**

1. Functional need
2. Legal opinion (deposition for beneficial purposes)
3. Historic Aerial Photographs
4. NRC contaminated site record search
5. Coast and Catchment response
6. Patuharakeke CEA
7. Ngatiwai correspondence
8. WSP response (traffic)
9. Indicative carparking plan
10. Styles Group response (underwater noise)
11. Hawthorn Geddes response (stormwater)
12. PDP response (air quality)
13. Requested and referenced Met Ocean reports
14. ME response (economics)