

DRAFT PROPOSED NRC CONDITIONS: NORTHPORT LIMITED (UPDATED/FINAL VERSION 16 MAY 2024)

PORT EXPANSION, SH15, MARSDEN POINT

To undertake the following activities at or near Ralph Trimmer Drive, Marsden Point and/or within the Whangārei Harbour:

- Reclamation of part of the Coastal Marine Area (CMA) to the immediate east of Northport, including associated deposition and discharge of decant water.
- Capital and associated maintenance dredging.
- Wharf structures on the northern (seaward) edge of the proposed reclamation.
- Sheet piling and rock revetment structures on the eastern edge of the reclamation.
- Treatment of operational stormwater via the existing pond-based stormwater system and/or proprietary systems, and subsequent discharge to ground and the CMA.
- Port related activities on the proposed reclamation and wharves, and on parts of the proposed development above MHWS.
- Construction of additional beach roosting habitat to the west of Northport.
- Construction of a public access from the existing car park at the end of Ralph Trimmer Drive (to be replaced) through to a proposed reserve and related amenities at the eastern edge of the proposed reclamation.
- Construction of a tug berthing facility and fishing pontoon at the eastern edge of the proposed reclamation.

Note: All location coordinates in this document refer to Geodetic Datum 2000, New Zealand Transverse Mercator Projection (unless expressly stated otherwise).

SUBJECT TO THE FOLLOWING CONDITIONS:

DEFINITIONS

“Allowable Duration”

is the maximum number of hours in a rolling 30-day period during which the Intensity prescribed at a telemetered turbidity monitoring location in relation to turbidity trigger Tiers 1 and 2 or Tier 3 Compliance Level may be exceeded without a management action being required. The maximum number of hours for each Tier is as follows:

- (i) Tier 1: 144
- (ii) Tier 2: 36
- (iii) Tier 3: 7.2;

“AQMP”

means the Air Quality Management Plan;

“BMP”	means the Biosecurity Management Plan(s);
“Capital DMP”	means the Capital Dredging Management Plan;
“CEMP”	means the Construction Environmental Management Plan;
“Certification”	has the meaning set out in Condition 24;
“Channel Infrastructure”	means Channel Infrastructure NZ Ltd and its wholly-owned subsidiaries and any successor in title to some or all of its coastal structures including existing jetties (including the fire pump intake dolphin moorings and spillway) and other coastal structures including outfalls and a boat ramp;
“CIH”	means the Cultural Indicators Hub;
“CMA”	means the coastal marine area as defined in s2 of the RMA;
“Commencement of reclamation works”	means earthworks/filling and other physical works associated with construction of the Project in the CMA. Works associated with preliminary investigations/reporting do not fall within this definition;
“Commencement of these consents”	means the date the last of the consents applied for by Northport for its Expansion Project commences according to s 116 of the RMA;
“Council”	means Northland Regional Council or its successor;
“CRMS”	means Craft Risk Management Standard;
“Dredge Spoil”	means seabed material that has been removed by a dredge;
“Declared Depth”	means the depth below Chart Datum that is required for navigational safety, therefore set as the minimum requirement for the dredge operator to achieve. This excludes the over dredge tolerance in both the vertical and horizontal planes;
“DMMOZ”	means the Dredging Marine Mammal Observation Zone;
“EMMOZ”	means the Extended Marine Mammal Observation Zone;
“EMMP”	means the Environmental Monitoring and Management Plan;
“Exceedance”	means the exceedance of an Allowable Duration;
“Expansion Project”	means the Northport expansion to the east of the existing port for the purpose of constructing, operating, and maintaining a container terminal as authorised by these consents (and associated district consents), including reclamation and wharf construction and all associated activities and works;
“FNU”	Formazin Nephelometric Unit;

“FTU”	means Formazine Turbidity Unit;
“Index-linked”	means linked to the Consumer Price Index, but capped at 2.5%, and compounding over 5-years, with adjustment to the level of funding at every 5-yearly review.
“Intensity”	means the turbidity level (in NTU/FTU) established for each Tier at each telemetered turbidity monitoring location using the methodology contained in the document titled <i>“Turbidity Monitoring for the Northport Expansion Project”</i> (1 June 2023, Environmetrics Australia), and the following percentiles: (i) Tier 1: 80% (ii) Tier 2: 95% (iii) Tier 3: 99%;
“Maintenance DMP”	means the Maintenance Dredging Management Plan;
“MMMP”	means the Marine Mammal Management Plan;
“MMO”	means a suitably qualified and experienced person (holding a tertiary ecology or similar qualification and experience working with marine mammals, or a person with at least 2 years marine mammal observation experience from similar projects) that has successfully completed an appropriate MMO training course, followed by a 1 day on site training course delivered by a suitably qualified marine scientist.
“MMOZ”	means Marine Mammal Observation Zone;
“NTU”	means nephelometric turbidity unit;
“Pocket Park”	means the public park (recreational open space) area near the south-eastern corner of the Expansion Project site, as shown in Boffa Miskell <i>“Proposed Concept Plan”</i> , BM220519-201 (Revision B, 25.7.22) at Appendix 1 .
“Practical Completion”	in relation to the reclamation, means the date that the completed reclamation (or any part thereof) is available for port activities;
“Predicted Dredging Turbidity”	means the TSS from the dredging that is predicted from the hydrodynamic modelling detailed in Appendix 9 of the Assessment of Environmental Effects supporting the application lodged in October 2022;
“RG”	Tangata Whenua Relationship Group

“RMA”	means the Resource Management Act 1991;
“Sandbank Renourishment Area”	means the additional avifauna roosting habitat (for the benefit of Tōrea pango <i>Variable oystercatcher</i> and Tūturiwhatu <i>New Zealand dotterel</i>) that is authorised by these consents to be established through the deposition of sand within the CMA to the west of the Expansion Project (as generally shown in Tonkin+Taylor “ <i>Bird Roost Concept</i> ”, DWG No. 1017349-02 (Revision 1, August 2022));
“SCMP”	means the Stakeholder and Communications Management Plan described in Conditions 15-18;
“SMMP”	means Stormwater Operations, Monitoring, and Maintenance Plan
“Suitably Qualified and Experienced”	means a person or persons with a recognised qualification and/or experience relevant to the topic being assessed;
“Tier 3 Compliance Level”	means the turbidity compliance level for each of the telemetered turbidity monitoring locations established in accordance with Condition 162 and the document titled “ <i>Turbidity Monitoring for the Northport Expansion Project</i> ” (1 June 2023, Environmetrics Australia).
“TSS”	means Total Suspended Solids, measured in mg/L;
“Water Taxi Pontoon”	means the pontoon adjacent to the eastern end of the proposed reclamation which is proposed to be used for water taxi services, as shown in “Northport relocated tug facility – eastern end concept plan”, D60-X (Issue R0, September 2022) at Appendix 1 .
“Working Day”	means any day of the year other than: <ul style="list-style-type: none">(a) A Saturday, a Sunday, Waitangi Day, Good Friday, Easter Monday, Anzac Day, the Sovereign’s birthday, Matariki, and Labour Day; and(b) If Waitangi Day or Anzac Day falls on a Saturday or a Sunday, the following Monday; and(c) A day in the period commencing on 20 December in any year and ending with 10 January in the following year.
“Wharf”	means the wharf structure to be constructed adjacent to the proposed reclamation, which is proposed to accommodate Berth 5, as shown in “Plan Reference” at Appendix 1 .

GENERAL CONDITIONS

1. Works/activities authorised by these consents must be undertaken in general accordance with the application received by Council on 6 October 2022 and all supporting information, including the following documents and plans (including as amended through the application and hearing process). If there is any conflict between the relevant documents/plans and these conditions of consent, these conditions of consent prevail.

AEE reports

- Marshall Day Acoustics Ltd '*Northport Container Terminal Expansion Noise Assessment*' (Rp 002 R07 20200547) dated 29 September 2022.
- Enviser Ltd '*Draft Construction Environmental Management Plan*' (Enviser ref. 1116) dated October 2022.
- MetOcean Solutions '*Effects of Proposed Reclamation and Dredging Layout on Hydrodynamics*' dated August 2022.
- Tonkin and Taylor Ltd '*Coastal Process Assessment*' (ref. 1017349 v3) dated September 2022.
- Coast and Catchment Ltd '*Assessment of Ecological Effects*' Report number 2021-24 dated September 2022.
- Boffa Miskell Ltd '*Coastal Avifauna Assessment*' Rev. G dated 3 October 2022.
- Cawthron Institute '*Potential Effects of the Proposed Northport reclamation on Marine Mammals in the Whangarei Harbour Region*' Report no. 3652 dated September 2022.
- Brown NZ Ltd '*Assessment of Landscape, Natural Character and Amenity Effects*' dated September 2022.
- Clough and Associates Ltd '*Archaeological Assessment*' dated June 2022.
- WSP Ltd '*Concept Design Report*' Ref. 6-DV652.00 Rev. C dated August 2022.
- Rob Greenaway and Associates '*Recreation Effects Assessment*' dated September 2022.
- Hawthorn Geddes Ltd '*Stormwater Pond Assessment Report*' HG ref. 12377 Rev. 3 dated 10.8.22.
- Pattle Delamore Partners Ltd '*Air Quality Assessment*' Ref. A03566800R001 dated 5.8.22.
- Market Economics Ltd '*Economic Assessment*' Ref. NPL 001.20 dated September 2021.
- Patuharakeke Te Iwi Trust Board '*Interim Cultural Effects Assessment*' dated November 2021.
- Styles Group '*Assessment of Underwater Noise Effects*' dated 2 August 2022.
- Northport '*Navigation Safety Report*' dated September 2022.
- WSP Ltd '*Traffic Impact Assessment*' Ref. 1-19278.01/00006 dated 30.08.22.
- 4Sight Ltd '*Intertidal Ecology Report*' dated May 2018.

RFI responses

- Response to information request dated 25 October 2022.
- Response to information request dated 21 February 2023.
- Response to information request dated 13 July 2023.

Plans/drawings

- WSP Ltd 'Design Drawings' 1-19278.01(03) – Sheets C01 (Rev. D), C02 (Rev. D), C03 (Rev. D), and C04 (Rev E).
 - Boffa Miskell Ltd – 'Pocket Park Concept Plan' – BM220519-201 and BM 220519-200 (Rev B).
 - Reyburn and Bryant – 'Northport Expansion (Berth 5) – O14656 (Rev. A).
 - Northport – 'Relocated Tug Facility Eastern End – Concept Plan' (R0) dated September 2022.
 - 'One Tree Point – Manganese Point Line' plan dated 30 January 2024.
 - 'Underwater Noise Measurement Point' plan dated 16 February 2024.
2. The location of the activities authorised by these consents must be in general accordance with the plans at **Appendix 1**.
- Advice Note:** 'General accordance' includes any changes to the location and extent of the reclamation, wharf, tug berthing facility and water taxi pontoon required by Condition 32 or Condition 39, noting the extent of occupation of these structures (excluding the rock revetment below MHWS) cannot increase or extend further seaward from the footprint shown in the plans in Appendix 1 as an in general accordance change.*
3. At least thirty (30) working days in advance of the date of the commencement of works authorised by these consents, the consent holder must contact the Council to arrange for a site meeting with the consent holder's contractor(s) and a Council compliance officer prior to commencement of construction works. The details to be provided at the meeting, and then in writing no more than five (5) working days after the meeting, must include:
- (a) The intended date of the commencement of works and a programme for the works.
 - (b) A draft programme for the CEMP and any other design plan, engineering plan, report or management plan required to be submitted for certification under these conditions (if not already provided).
 - (c) The intended date for providing the final design drawings to demonstrate how the works are in general accordance with the conditions of these consents, including **Appendix 1**.
 - (d) The nominated Consent Holder contact and contractor representative (or equivalent) for the works
 - (e) Any intended staging of the CEMP and works.
 - (f) A list of the proposed Suitably Qualified and Experienced Persons and Chartered Engineers proposed to be used in preparation of any design plans, engineering plan(s), report, or management plan requiring Council certification.
4. The consent holder must keep the CMA free of litter and other debris arising from the exercise of these consents.
5. The consent holder must maintain all structures and the reclamation authorised by these consents in good order and repair. Maintenance works authorised by these consents must be routine maintenance and repair, including to the exterior walls of the reclamation consistent with the scale and form of the initial approved reclamation.
6. A copy of these consents and the most up-to-date certified versions of all management plans required by these consent conditions must be kept on site at all times and made available to all persons undertaking activities authorised by these consents.

7. The consent holder must notify the Council in writing within five (5) working days of Practical Completion of the reclamation.
8. The consent holder must notify the Council in writing within ten (10) working days following the date of the completion of all construction works authorised by these consents.
9. All monitoring/sampling required under these consents must be undertaken by or under the supervision of a Suitably Qualified and Experienced person(s).

Review under s128 of the RMA

10. The Council may serve notice on the consent holder of its intention to review the conditions of these consents pursuant to Section 128 of the RMA either:
 - (a) Annually during the month of March, for any one or more of the following purposes:
 - (i) To require the adoption of the Best Practicable Option to remove or reduce any adverse effect on the environment; or
 - (ii) To deal with any change(s) to the materials handled through the Port Terminal; or
 - (iii) To respond to any new technology, standards or monitoring parameters relevant to the environmental monitoring undertaken in accordance with these consents.
 - (b) At any time, to deal with any adverse effects on the environment which may arise from the exercise of the consents and which it is appropriate to deal with at a later stage, including effects identified in the consent holders monitoring results or reports from activities authorised by these consents and/or as a result of Council's state of the environment monitoring in the area.
11. The consent holder must meet all reasonable costs of any such review.

Accidental discovery protocol

12. If subsurface archaeological evidence is unearthed during construction (e.g. intact shell midden, hangi, or storage pits relating to Māori occupation; or cobbled floors, brick or stone foundations, or rubbish pits relating to 19th century European occupation), work in the immediate vicinity must cease. Heritage NZ Pouhere Taonga and the Council must be notified as soon as reasonably practicable.
13. Work must not recommence in the immediate vicinity of the discovery until either: it has been determined that no Heritage New Zealand Pouhere Taonga approval(s) are required; or that any necessary Heritage New Zealand Pouhere Taonga approval(s) have been obtained.
14. In the event of koiwi tangata (human remains) being uncovered, work in the immediate vicinity of the remains must cease. Heritage NZ Pouhere Taonga, NZ Police, iwi, hapū and Māori and the Council must be contacted so that appropriate arrangements can be made.

Advice Note: *The Heritage New Zealand Pouhere Taonga Act 2014 makes it unlawful for any person to destroy, damage or modify the whole or any part of an archaeological site without the prior authority of Heritage New Zealand Pouhere Taonga. For the avoidance of doubt, the accidental discovery protocol conditions apply to works undertaken within land and CMA.*

Stakeholder and Communications Management Plan

15. The consent holder must prepare and implement a SCMP not later than 12 months prior to commencement of construction works. The purpose of the SCMP is to set out a framework for how the consent holder will communicate with the community, stakeholders and affected parties for the duration of construction, and the operation of the Expansion Project.
16. The SCMP must set out, prior to construction, how the consent holder will:
 - (a) Identify the stakeholders for communication;
 - (b) Inform the community of project process and likely commencement of construction works and programme;
 - (c) Engage with the community and stakeholders to foster good relationships and provide opportunities for learning about the project;
 - (d) Utilise the project website to provide updates to the community;
 - (e) Communicate with tangata whenua regarding construction of the project;
 - (f) Respond to queries and complaints; and
 - (g) Provide updates on progress with management plans.
17. The SCMP must set out the framework for how, during construction and operation, the consent holder will:
 - (a) Engage with stakeholders such as Channel Infrastructure, Seafuels, affected landowners, tangata whenua, community groups, recreational boating groups, Mountains to Sea Conservation Trust, local businesses and representative groups, residents' organisations, other interested groups or individuals, network utility operators, Whangarei District Council and associated local authorities, and the Council;
 - (b) Inform the Whangarei district community of construction progress, including proposed hours of work;
 - (c) Inform the Whangarei district community of ongoing dredging;
 - (d) Engage with the communities to foster good relationships and to provide opportunities for learning about the project;
 - (e) Provide information of key project milestones; and
 - (f) Make each management plan publicly available once a management plan is finalised, and for the duration of project works.
18. The consent holder must prepare the SCMP in consultation with the following parties and submit the final SCMP for certification with the CEMP:
 - (a) The Council;
 - (b) Whangarei District Council; and
 - (c) Iwi/hapū.

Website

19. The consent holder must, for the duration of these resource consents, maintain a website that is accessible to, and readily usable by, the public.
20. The website must include the following information:
 - (a) Copies of relevant resource consents;
 - (b) A statement summarising steps toward progressing commencement of these consents, and the consent holder's expected timeframe for commencement. This statement must be updated at least annually.
21. From Commencement of these consents to Practical Completion, the website must include the following information:
 - (a) Copies of these resource consents;
 - (b) A summary of real-time data collected from the telemetered turbidity monitoring stations required under these conditions;
 - (c) Quarterly monitoring reports prepared under Condition 158.
 - (d) A record of all Tier 3 Compliance Level Exceedances that are correlated with identification of any extraordinary natural events;
 - (e) Any Tier 3 Compliance Level Exceedance report prepared under Condition 169.
 - (f) All certified management plans required by these conditions and any certified variations;
 - (g) All written reports, peer reviews, written evidence, reviews, and outcomes and recommendations prepared under these consent conditions;
 - (h) A mechanism for members of the public to raise matters with, make an enquiry of, or lodge a complaint with the consent holder (with any complaints received to be maintained in the Complaints Register in accordance with Condition 22 below) ; and
 - (i) Updated project timing and duration information for the Project and activities conducted in accordance with these resource consents, including but not limited to; reclamation, capital dredging, preclusion or reinstatement of public access to Marsden Bay Beach and Ralph Trimmer Drive.

Complaints

22. The consent holder must maintain a Complaints Register for the purpose of recording and dealing with any complaints that are received by the consent holder in relation to the exercise of these resource consents. The Complaints Register must record, where this information is available:
 - (a) Name of complainant, if provided to the consent holder;
 - (b) The date and time of the complaint;
 - (c) A description of the complaint;
 - (d) The location of the issue raised;
 - (e) Weather conditions at the time of complaint, including a description of wind speed and wind direction when the complaint occurred (if relevant);

- (f) Any possible cause of the issue raised;
 - (g) Any investigations that the consent holder undertook in response to the complaint;
 - (h) Any corrective action taken to address the cause of the complaint, including the timing of that corrective action; and
 - (i) Any feedback provided to the complainant.
23. The consent holder must provide a copy of the complaints register to the Council's Compliance Manager within five working days of receiving a request to do so from the Council.

Certification

24. Where any condition requires the consent holder to submit design plans, engineering plans, a report or management plan to the Council for "**certification**" it must mean the process set out in the following paragraphs (a) to (d) and the terms "certify" and "certified" must have the equivalent meanings:
- (a) The consent holder supplies design plans, engineering plans, reports or management plans to the Council, and the Council assesses the documentation submitted. The certification process for design plans, engineering plans, management plans and reports required by conditions of this consent must be confined to confirming that the plans or reports give effect to their purposes, consent condition requirements, and schedule requirements, and contain the required information;
 - (b) Should the Council determine that the documentation supplied in accordance with (a) above achieves the requirements of the relevant condition(s), the Council must issue a written confirmation of certification to the consent holder;
 - (c) If the Council's response is that it is not able to certify a design plan, engineering plan, management plan or report, it must provide the consent holder with reasons and recommendations for changes to the plan or report in writing. The consent holders must consider any reasons and recommendations of the Council and resubmit an amended design plan/engineering plan/management plan/report for certification;
 - (d) A design plan, engineering plan, management plan or report cannot be subject to a third-party approval. The Council in deciding whether to certify the design plan, engineering plan, management plan or report, however, may also obtain advice from other qualified person(s).
25. The process in Condition 24 must be repeated until the Council is able to provide written confirmation that the requirements of the applicable condition(s) have been satisfied.
26. The consent holder must comply with the certified management plan or report at all times.

Lapse

27. These consents will lapse 20 years from commencement.

Consent surrender

28. Within three (3) months of the date of Practical Completion of the Expansion Project reclamation, the consent holder will give notice of the surrender of the existing resource consent for the current stormwater collection, treatment, and disposal system (CON20090505532 issued on 13 April 2010)

Advice Note: *The surrender of the above resource consents will consolidate the stormwater resource consents and conditions applying to the expanded Northport, meaning that a single consent and single set of conditions will apply to all Northport operational stormwater.*

UNAUTHORISED DISCHARGES / HAZARDOUS SPILLS

29. During construction the consent holder must take all practicable measures to prevent unauthorised discharges of hazardous substances into the CMA. Such measures must include:

- (a) Measures to prevent oil and fuel leaks from vehicles and machinery, including maintaining machinery and equipment in good working order;
- (b) Refuelling of land-based machinery and vehicles not occurring within 20 metres of the CMA where practicable, and occurring under supervision throughout the whole activity;
- (c) All refuelling equipment having a shut-off valves;
- (d) The stationary land-based storage of fuel and other hazardous substances not occurring within 20 metres of the CMA;
- (e) All vehicles and/or works areas having a spill kit capable of absorbing the quantity of fuel and other hazardous substances that may leak or be spilt; and
- (f) Spill containment equipment being immediately available and kept on-site at all times.

Advice Note: *Nothing in Condition 29 is intended to affect existing obligations under other legislation, including the Maritime Transport Act and associated statutory instruments such as marine protection rules.*

30. The consent holder must, on becoming aware of any discharge and/or spill associated with the consent holder's operations that is not authorised by these consents:
- (a) Immediately take such action, or execute such work as may be necessary, to stop and/or contain the discharge/spill;
 - (b) Immediately notify the Council by telephone of the discharge/spill;
 - (c) Take all reasonable steps to remedy or mitigate any adverse effects on the environment resulting from the discharge/spill; and
 - (d) Report to the Council in writing within one (1) week on the cause of the discharge and the steps taken or being taken to effectively manage the discharge and prevent any recurrence.

During Council's opening hours, telephone contact with the Council must be via the Council's landline. If the relevant person cannot be spoken to directly, or it is outside of the Council's opening hours, then the Environmental Emergency Hotline must be contacted.

Advice Note: *The Environmental Emergency Hotline is a 24 hour, seven day a week, service that is free to call on 0800 504 639.*

31. In addition to the requirements in condition 30, for any spill of a hazardous substance into the CMA that is greater than 20 litres, the consent holder must provide the Council with the following information within 24 hours:
- (a) The date, time, location and estimated volume of the spill;
 - (b) The cause of the spill;
 - (c) The type of contaminant(s) spilled;
 - (d) Observations of any spilt material within the marine environment;
 - (e) Clean up procedures undertaken;
 - (f) Details of the steps taken to control and remediate the effects of the spill on the receiving environment;
 - (g) An initial assessment of the potential ecological effects of the spill; and
 - (h) Measures to be undertaken to prevent a recurrence.

DESIGN AND CONSTRUCTION OF RECLAMATION, MARINE STRUCTURES, SANDBANK RENOURISHMENT AREA AND STORMWATER INFRASTRUCTURE

Engineering Plans

32. The consent holder must submit detailed engineering plans (including drawings and calculations if applicable) prepared in accordance with an appropriate design standard / guideline and any other requirements of the conditions of this consent, to the Council for certification prior to works commencing. These can be submitted in stages. The plans must include:
- (a) Berth 5 reclamation, and revetment,;
 - (b) Berth 5 wharf, sea wall(s), and associated coastal structures;
 - (c) Tug facility, and Water taxi pontoon.
 - (d) Sandbank Renourishment Area;
 - (e) Stormwater infrastructure, including:
 - (i) Floatables trap at weir-controlled-spillways; and
 - (ii) Any new or upgraded canals, weirs, spillways and associated stormwater infrastructure servicing proposed Berth 5 or Berths 1 – 4; and

- (f) A staging plan to demonstrate how the terminal can be modified at a later date from Reach stacker operations to RTG crane terminal operations so as not to reduce capacity and delays through construction and avoid the need for additional coastal occupation.
- 33. The design and engineering plans must be independently peer reviewed by a Suitably Qualified and Experienced person and when submitting the plans, the consent holder must provide to Council written evidence of this review and how the review comments have been responded to.
- 34. The structures and infrastructure related to the container terminal must be designed to the relevant Importance Level to provide lifeline utility services. The consent holder when submitting the plans, must provide written evidence from the Ministry of Civil Defence (or Equivalent) of the necessary Importance Level.

Reclamation design and construction

- 35. The reclamation must be constructed within the area marked 'Proposed Reclamation' on plan C03 contained in **Appendix 1**.
- 36. The reclamation must be designed by a suitably experienced Chartered Professional Engineer, with input from other relevant specialists.
- 37. A Chartered Professional Engineer with relevant experience in reclamation construction must oversee the construction of the reclamation to ensure it complies with the design. A statement must be provided by the engineer to Council confirming the construction was undertaken in accordance with the design (by way of a Producer Statement 4 or equivalent).
- 38. Any material deposited into the reclamation areas for bulk filling must only consist of the following:
 - (a) Dredge Spoil; and/or
 - (b) Imported material, including sand, soil, rock, gravel, and crushed concrete; and/or
 - (c) Construction materials, including stabilising agents such as cement or lime.

Marine structures design and construction

- 39. The design of the reclamation, wharf, tug berthing facility, and Water Taxi Pontoon must:
 - (a) be prepared by a suitably experienced Chartered Professional Engineer
 - (b) not give rise to any navigation or safety effects, including on the operation of the adjacent Channel Infrastructure jetties (including shipping movements to and from Channel Infrastructure's jetty 3) and in respect of recreational conflicts.
 - (c) be reviewed by an independent Suitably Qualified and Experienced person to confirm that there are no navigation or safety effects associated with the design including in respect of the operation of the adjacent Channel Infrastructure jetties and potential recreational conflicts. The review must be submitted to Council for certification at least two (2) months prior to construction of these structures and must have regard to and incorporate where appropriate:

- (i) any recommended changes to the design to manage predicted changes to hydrodynamics and minimise effects on the Channel Infrastructure structures (including berth pockets) and turning basin, including the mooring of commercial vessels frequenting the Channel Infrastructure structures set out in the report required by condition 114(a)(ii) and (iii); and
 - (ii) any outcomes and recommendations of the Full Mission Bridge Simulations required by Condition 117, to be provided to Channel Infrastructure and Seafuels at the same time as the independent Suitably Qualified and Experienced person; and
 - (d) be provided to Channel Infrastructure and Seafuels, along with the results of the independent review required by Condition 39(c) with an opportunity for Channel Infrastructure and Seafuels to make comment within 20 working days on navigation or safety effects associated with the operation of the adjacent Channel Infrastructure jetties including shipping movements to and from Channel's jetty 3, and including in relation to successive versions of the design before it is finalised;
 - (e) be updated to address any effects identified in the independent review required by Condition 39(c) above and respond to and reasonably incorporate any comments provided by Channel Infrastructure or Seafuels pursuant to 39(d) above;
 - (f) be submitted to the Council for certification at least three (3) months prior to construction of the reclamation or structures, along with the results of the independent review required by Condition 39(c) above, any updates to respond to the independent review required by condition 39 above, and/or any comments provided by Channel Infrastructure or Seafuels pursuant to Condition 39(d) above and where incorporated, that practicable alternatives have been considered.
40. For the purposes of Condition 39:
- (a) The design of the reclamation, wharf, tug berthing facility, and Water Taxi Pontoon, includes the design detail, as well as the extent and location of each structure and the berthing of ships at these structures.
 - (b) Navigation and safety effects includes (but is not limited to) the effects of vessels berthed at the Wharf, tug berthing facility and Water Taxi Pontoon.
 - (c) The requirement for the design to have no navigation or safety effects applies in all existing operable weather conditions (including wind) and tide conditions, that have occurred over the preceding 12 months and must not take into account any changes that could potentially be made to a third parties' structures or operations to mitigate any navigation or safety effects (unless their permission is obtained).
41. The consent holder will notify Channel Infrastructure and Seafuels when it engages the Suitably Qualified and Experienced person in accordance with Condition 39(c) so that Channel Infrastructure and Seafuels may prepare internally for its review of the design in accordance with condition 39(d).
42. A Chartered Professional Engineer with relevant experience must oversee the construction of the wharf, tug berthing facility, and Water Taxi Pontoon structures to ensure they comply with the design. A statement must be provided by the engineer to Council confirming the construction was undertaken in accordance with the design (by way of a Producer Statement 4 or equivalent).

43. The tug berthing facility must be located at the general location shown in “Northport relocated tug facility – eastern end concept plan”, D60-X (Issue R0, September 2022) at **Appendix 1**.

Advice Note: ‘General location’ includes any changes to the location and extent of the tug berthing facility required by Condition 32 or Condition 39.

44. The Water Taxi Pontoon must be located at the general location shown in plan “Northport expansion – Berth 5”, 014656 (July 2023) at **Appendix 1**.

Advice Note: Public access to the Water Taxi Pontoon will be via the public Pocket Park.

Advice Note: ‘General location’ includes any changes to the location and extent of the Water Taxi Pontoon required by Condition 32 or Condition 39.

Sandbank Renourishment Area

45. At least three (3) months prior to the commencement of the sandbank (bird roost) construction works the consent holder must prepare and submit to the Council a Sandbank (Bird Roost) Management Plan (“SBRMP”). The purpose of the SBRMP is to ensure that the ongoing structural integrity of the Sandbank Renourishment Area in providing replacement roosting habitat for Tōrea pango (Variable oystercatcher) and Tūturiwhatu (New Zealand dotterel

46. The SBRMP must include:

- (a) an assessment of performance standards and specifications (including minimum area and height above mean high water springs) to achieve its purpose;
- (b) the construction methodology, including how tracking of any vehicles and machinery over the surrounding intertidal area will be avoided;
- (c) maintenance monitoring, in accordance with Conditions 198-201;
- (d) the likely duration of the Sandbank operating as an effective high tide bird roost, including between renourishment;
- (e) and the likely nourishment frequency and volumes required;
- (f) confirmation from a Suitably Qualified and Experienced person that the material used in the Sandbank Renourishment Area construction contains no contaminants above background levels, based on the average of no less than five sediment sample locations within the western intertidal area of Marsden Bay.

47. The final design of the Sandbank Renourishment Area must be in general accordance with Tonkin+Taylor “Bird Roost Concept”, DWG No. 1017349-02 (Revision 1, September 2022) and the Avifauna section of the CEMP and the SBRMP.

48. Before the commencement of construction works on the proposed reclamation, the consent holder must construct the Sandbank Renourishment Area.

49. A Chartered Professional Coastal Engineer with relevant experience must oversee the construction of the sandbank to ensure it complies with the SBRMP and sand renourishment area plans. A statement must

be provided by the engineer to Council confirming the construction was undertaken in accordance with the design.

50. Subject to obtaining the necessary consents to do so, the Consent Holder must maintain the bird roost in perpetuity.

Advice Note: *If the ongoing maintenance of the bird roost requires replacement resource consents, it is the Consent Holders intention to obtain these consents in order to maintain the avifauna roost in perpetuity, or at least as long as the port is operating.*

ENVIRONMENTAL MITIGATION

Public access

51. Prior to commencement of the works, the consent holder must provide or facilitate an alternate location for the Te Araroa trail and Water Taxi to connect from Reotahi to Marsden Point and must maintain this facility until Practical Completion of the replacement Water Taxi Berth.
52. The consent holder must maintain existing public access to and along the foreshore and public reserve areas to the greatest extent practicable, except where these consents authorise exclusive occupation and/or where necessary for operational requirements or to ensure public safety.

Contribution to Indigenous Duneland Vegetation

53. Prior to the commencement of reclamation works, the consent holder must make a donation of \$100,000.00 (Index-Linked) to an established group(s) whose purpose includes the conservation, maintenance and restoration of indigenous duneland ecosystems within the Waipu Ecological District. The intended purpose of the donation is to enable the group to undertake duneland revegetation, weed and/or pest control within the Waipu Ecological District.
54. Prior to distribution of funds the Consent Holder must provide confirmation to the Council of compliance with condition 53, including the intended use and timing of the donation.
55. Within three months of completion of the works identified in condition 53, the Consent Holder must provide confirmation to the Council that the works have been undertaken, including a report detailing the location and scale of works, and any proposed ongoing management.

Integrated marine planning initiative

56. Within 6 months of Commencement of these resource consents, the Consent Holder must use reasonable endeavours to establish a Steering Committee to examine and promote Integrated Marine Planning and Governance for Bream Bay in accordance with the draft Discussion Document dated 28 July 2023. The consent holder's obligations include, as a minimum:

- (a) Inviting stakeholders and the Tangata Whenua Relationship Group to participate in a Steering Committee;
- (b) Providing funding towards the establishment, administration, and promotion of the roles and outcomes of, a Steering Committee ('Steering Committee Funding'). The Steering Committee Funding will be \$10,000.00 per annum (plus GST, if any) for a period of 5 years, beginning the first full calendar year following the commencement of these consents. A record of payments constituting the Steering Committee Funding for each full calendar year is to be provided by the consent holder to the Council's Compliance Manager not later than 31 March the following year; and
- (c) Generally promoting the Steering Committee to assist it to carry out its functions and achieve the outcomes sought.
- (d) Promote appropriate steps to manage vessel movements in order to minimise marine mammal ship strike, such as adoption of the Hauraki Gulf Transit Protocol.

Advice Note: *The consent holder has offered, on an Augier basis, to use its reasonable endeavours to establish and promote a Steering Committee to examine integrated co-governance of Bream Bay, including the promotion of an Integrated Marine Planning Framework that provides for the integration of all interests towards the wellbeing of the marine environment. Information regarding Northport's aim in promoting and establishing a Steering Committee, including its' proposed constitution, structure, functions, and outcomes sought is set out in the Statement of Intent.*

It is acknowledged that the likely constitution of a Steering Committee will include representatives of central and local government, quasi-governmental bodies, interest groups, industry, and hapū/iwi/Māori. As such, it is recognised that the obligations on Northport secured through these consent conditions need to be appropriately scoped.

CONSTRUCTION MANAGEMENT

Construction noise

57. Construction noise from activities within the CMA, including from capital and maintenance dredging, must not exceed the noise limits in the following table:

RESIDENTIAL ZONES AND DWELLINGS IN RURAL AREAS:

Upper limits for construction noise received in residential zones and dwellings in rural areas

Time of week	Time period	Noise limits (dB)	
		L _{Aeq}	L _{AFmax}
Weekdays	0630-0730	55	75
	0730-1800	70	85
	1800-2000	65	80
	2000-0630	45	75
Saturdays	0630-0730	45	75

	0730-1800	70	85
	1800-2000	45	75
	2000-0630	45	75
Sundays and public holidays	0630-0730	45	75
	0730-1800	55	85
	1800-2000	45	75
	2000-0630	45	75

INDUSTRIAL OR COMMERCIAL AREAS:

Upper limits for construction noise received in industrial or commercial areas on all days

Time period	Noise limits (dB L _{Aeq})
0730-1800	70
1800-0730	75

58. Construction noise must be measured and assessed in accordance with New Zealand Standard NZS 6803:1999 “Acoustics – Construction Noise”.

Construction dust

59. The consent holder must manage dust associated with construction works to avoid having an offensive or objectionable effect beyond the boundary of the land or structures owned or occupied by the consent holder.

Advice Note: *There is potential for discharges to air in the form of dust from at least the following activities:*

- a) *The stockpiling, crushing or handling of material;*
 - b) *The loading and unloading of material and the movement of vehicles associated with the handling of material;*
 - c) *Transport of material;*
 - d) *Vehicle movements;*
 - e) *The deposition of material associated with the construction of the reclamation; and*
 - f) *Fugitive dust from unconsolidated surfaces.*
60. If dust from site activities results in any form of nuisance effect beyond the boundary of land or structures owned or occupied by the consent holder, the consent holder must immediately review the dust mitigation measures and amend or implement additional dust control methods necessary to prevent a reoccurrence.

Avifauna

Kororā Little Penguin

61. Within 24 hours prior to any works resulting in the disturbance of existing revetment rock, the consent holder must undertake surveys by a Suitably Qualified and Experienced coastal ornithologist and a

certified penguin detector dog to determine the presence or absence of kororā *Little Penguin* within the existing eastern boundary riprap revetment.

62. If an active burrow or moulting penguin is discovered under Condition 61, until such time that nesting or moulting is complete, the following applies:
- (a) No rock removal or piling activities must be undertaken within 10 m of the active burrow or moulting penguin; and
 - (b) No other construction activity may occur in proximity to an active burrow or moulting penguin unless that activity can achieve a maximum sound level of 75 dB LAeq(15min) as measured outside of the entrance of a burrow containing an active burrow or moulting penguin.
63. If kororā *Little Penguin* are present within 10 m of a proposed reclamation works area, any rock removal works must be undertaken in the presence of a Suitably Qualified and Experienced coastal ornithologist.
64. The consent holder must ensure that no kororā *Little Penguin* are trapped by reclamation construction works.

Advice Note: *Catching, holding, and/or releasing kororā Little Penguin will require authorisation from the Department of Conservation under the Wildlife Act 1953.*

Advice Note: *“Active burrow” is defined as a kororā burrow containing, or suspected to contain, a nesting bird, viable nest contents (i.e. eggs and / or chicks) or moulting bird based on the time of the year and other evidence observed at the burrow location by a Suitably Qualified and Experienced coastal ornithologist.*

Tōrea pango Variable oystercatcher

65. If reclamation construction works are to occur during September to March inclusive (being Tōrea pango *Variable oystercatcher* breeding season), surveys must be undertaken by a Suitably Qualified and Experienced coastal ornithologist to determine potential Tōrea pango *Variable oystercatcher* nesting habitat within the proposed works footprint(s).
66. If reclamation construction works are to occur during the Tōrea pango *Variable oystercatcher* breeding season and within 20 metres of an area identified as potential Tōrea pango *Variable oystercatcher* nesting habitat, a Suitably Qualified and Experienced coastal ornithologist must survey for the presence of active nests.
67. If an active nest is detected, a 20 metres exclusion zone must be implemented for all reclamation construction machinery and personnel.

Advice Note: *Refer also the requirements in these conditions for constructing and maintaining the Sandbank Renourishment Area to provide additional avifauna roosting habitat.*

Marine mammals

Marine Mammal Observation Zone (MMOZ)

68. Before commencing any pile driving activity, the consent holder must establish a MMOZ and an Extended Marine Mammal Observation Zone (EMMOZ) within which personnel having the necessary training and experience must act as observers to search the MMOZ for marine mammals as far as reasonably practicable, including pre-start and during works observations.
- (a) The MMOZ extent must be any CMA within 200 metres of the pile driving.
 - (b) The EMMOZ extent must be any CMA within 800 metres of the pile driving and be enacted for a period of 5 days following a reported sighting of a baleen whale or popoiangore leopard seal in the wider Whangarei Area (Bream Bay to Tutukaka).
 - (c) The pre-start observation zone will extend from a line between One Tree Point and Manganese Point and the eastern boundary of the MMOZ (or EMMOZ if in place).
 - (d) Pre-start observations must occur for 30 minutes prior to the commencement of piling each day.
69. The default MMOZ extent must be confirmed (or adjusted) following the verification of in-situ pile driving sound levels and model verification in accordance with the procedures set out in the Conditions 74-80.

Pile driving prohibition requirements

70. If:
- (a) dolphin, toothed whale or pinniped (other than a leopard seal) is sighted in waters within the MMOZ;
 - or
 - (b) a baleen whale or popoiangore leopard seal is sighted in waters within the EMMOZ;
- pile driving must not commence or must immediately cease; and must only commence or re-commence once all marine mammals have left the relevant location(s) specified in (a) and (b) above and in accordance with Condition 71 below.
71. if a baleen whale or popoiangore leopard seal passes through the EMMOZ and continues westward up the harbour:
- (a) An additional MMO must be stationed at One Tree Point and that MMO must observe the waters to the west of a line between One Tree Point and Manganese Point as shown on the plan entitled 'One Tree Point – Manganese Point Line' dated 30 January 2024 in **Appendix 4** and the waters between the EMMOZ and the line between One Tree Point and Manganese Point.
 - (b) Piling must remain ceased whilst:
 - (a) the sighted baleen whale is observed to be west of the EMMOZ.
 - (b) the sighted popoiangore leopard seal is observed to be west of the EMMOZ but east of the line between One Tree Point and Manganese Point
 - (c) Piling can recommence if:
 - (i) The sighted popoiangore leopard seal crosses the line between One Tree Point and Manganese Point in a westerly direction.

- (ii) The sighted popoiangore leopard seal enters the Marsden Cove Marina.
 - (iii) The sighted baleen whale or popoiangore leopard seal exits the eastern edge of the EMMOZ.
- (d) If a popoiangore leopard seal is observed crossing the line between One Tree Point and Manganese Point in eastward direction towards the port, piling must cease and can only recommence if the mammal is visually confirmed to exit the eastward edge of the EMMOZ or has not been sighted for 1 hour.
72. The distances in condition 68 must be confirmed (or adjusted) following the verification of in-situ pile driving sound levels in accordance with condition 74-80.
73. During the first five instances of dolphin or orca entering the harbour and crossing the line between One Tree Point and Manganese Point in a westward direction, the following must occur:
- (a) An additional MMO must be stationed at One Tree Point
 - (b) That MMO and the one stationed at Northport, must observe the dolphin or orca behaviour to track and record the general behaviour of these same animals as they return to the east, cross the One Tree Point line and eventually exit the harbour.

If the MMO, in consultation with a suitably qualified and experienced marine mammal expert, determine there are obvious signs of avoidance or deterrence by these species, then piling must cease in future instances of dolphin or orca travelling eastward across a line between One Tree Point and Manganese Point

Pile-driving sound level verification

74. The Consent Holder must carry out acoustic monitoring during Pile Driving to measure the unweighted twenty-four hour cumulative Sound Exposure level (SELcum(24h)) at the point shown on the plan entitled 'Underwater Noise Measurement Point' dated 16 February 2024 in **Appendix 5**. The unweighted SELcum(24h) must be derived from the impact driven and vibro-driven piling operations over a twenty-four hour period.
75. The acoustic monitoring required under Condition 74 must include, but not be limited to, measurement work undertaken within two weeks of commencing pile driving activities for the wharf and during normal operating conditions on each of the different pile diameters for a minimum of three days each.
76. The monitoring results collected in accordance with Conditions 74 and 75 must be compared to the unweighted twenty-four hour cumulative Sound Exposure level (SELcum(24h)) and must not exceed 180dB re 1µPa2s (SELcum(24 hour)) during the first year of piling
77. Within 2 weeks of completion of the measurements work completed under Conditions 74 and 75, an acoustic monitoring report must be prepared by the Consent Holder. The report must detail the acoustic monitoring undertaken, the piling activity during the monitoring and a comparison of the monitoring results to the criteria in condition 76. A copy of the report must be provided to the NRC.

78. If piling activities are to extend into a second successive winter, the monitoring set out in Conditions 74 and 75 must be repeated in June of that year. The unweighted twenty-four hour cumulative Sound Exposure level (SELcum(24h)) measured during this monitoring must be not exceed 170 dB re 1 μ Pa²s at the measurement point shown on the plan entitled 'Underwater Noise Measurement Point' dated 16 February 2024 in **Appendix 5**.
79. The radius of the MMOZ and the EMMOZ in Condition 68 may be reduced in size if the acoustic monitoring and subsequent model verification carried out in accordance with Conditions 74 and 75 establishes that:
- (a) the unweighted 190 dB re 1 μ Pa²s SELcum(24h) contour which sets the MMOZ is less than 200 metres from the Pile Driving unit.
 - (b) the unweighted 176 dB re 1 μ Pa²s SELcum(24h) contour which sets the EMMOZ is less than 800m from the Pile Driving unit.
80. Any reduction in the size of the MMOZ must be approved in writing by the Council on the basis of provision of the results of representative acoustic monitoring in accordance with Condition 79.

Pile driving timing and scheduling

81. Pile driving must only be undertaken during daylight hours (half hour after sunrise and half hour before sunset).
82. To the extent practicable, pile driving must be scheduled and carried out to minimise the potential impact on marine mammals. This includes scheduling commencement of pile driving at a time which minimises the need for it to occur over successive marine mammal "seasons" (i.e. back-to-back winters).

Advice Note: Conditions 68-82 are for the purposes of minimising any risk of hearing impairment to marine mammals from pile-driving activities. Refer also the various controls required by the Marine Mammals section of the CEMP.

Discharge of reclamation decant water

83. Reclamation construction decant water must be discharged to coastal water via pipeline with an outlet(s) that is:
- (a) adjacent to the active reclamation edge; and
 - (b) at least 1 (one) metre below Mean High Water Springs.
84. Monitoring of the reclamation construction decant discharge must occur as follows:
- (a) On a daily basis during decant discharge, the consent holder must measure the outlet discharge turbidity in NTU/FTU and compare this value with the turbidity trigger value in NTU/FTU that equates to a TSS of 300mg/l. The NTU/FTU equivalent must be established following contemporaneous TSS and turbidity testing of the discharge in the first week of operations.
 - (b) If the measured median turbidity, over a one-hour period, exceeds the trigger value in (a), the consent holder must:
 - (i) Implement management practices to reduce the turbidity of the discharge;
 - (ii) Collect a sample of discharge from the outlet pipe at a point prior to discharge into the CMA; and

- (iii) Analyse the sample for TSS concentration and compare it with the TSS trigger value in (a) above.
85. The consent holder must provide the results of sampling completed under condition 84 upon request.
86. If a discharge sample collected in accordance with Condition 84 exceeds the TSS concentration limit the following must occur:
- (a) The consent holder must immediately cease the discharge and implement any management practices required to reduce the TSS concentration of the decanted discharge, after which the discharge may recommence;
 - (b) Within one (1) hour of resuming the discharge, the consent holder must measure the outlet discharge turbidity in NTU/FTU to reassess for compliance with Condition 84; and
 - (c) If compliance with Condition 84 is not achieved, the consent holder must undertake further management measures to reduce the TSS concentration of the decanted discharge and inform the Council within 48 hours.

Discharge of stormwater during construction

87. The discharge of stormwater from the reclamation and/or wharf area while under construction must only be:
- (a) into the decant discharge system;
 - (b) directly into coastal water; or
 - (c) into the existing canal and pond-based stormwater system.
88. Any construction stormwater discharge system(s) discharging directly to coastal water must be designed to achieve a NTU/FTU concentration of equivalent to 300mg/l TSS using the relationship established in accordance with condition 84(a) at the point of discharge for all rainfall events up to and including the 1 in 20-year storm event.
89. The Consent Holder must monitor the stormwater discharges twice a year to ensure that they meet the 300mg/l TSS in condition 88. The monitoring results must be forwarded to Council within 10 working days.

Construction and Environmental Management Plan (CEMP)

90. At least three (3) months prior to the commencement of construction authorised by these consents, the consent holder must submit a Construction and Environmental Management Plan (CEMP) to the Council for certification. The objectives of the CEMP are:
- (a) to detail the environmental monitoring and management procedures to be implemented during the Expansion Project's construction phase to ensure that appropriate environmental management practices are followed and adverse construction effects are minimised to the extent practicable; and
 - (b) to ensure construction effects of the Expansion Project are in accordance with the assessments accompanying the resource consent applications.
91. The CEMP must include the following sections:
- (a) Construction phase roles and responsibilities protocols;

- (b) Environmental Risk Assessment;
 - (c) Dust;
 - (d) Hazardous Substances;
 - (e) Erosion and Sediment Control;
 - (f) Marine Works;
 - (g) Wildlife, including:
 - (i) Avifauna;
 - (ii) Lizards; and
 - (iii) Marine Mammals;
 - (h) Archaeology;
 - (i) Construction Noise; and
 - (j) Complaints Procedures and incident reporting.
92. The CEMP must be prepared by a Suitably Qualified and Experienced person, with advice from relevant technical experts, and be in general accordance with the draft CEMP provided as part of the resource consent application (*Enviser, Draft Construction and Environmental Management Plan, October 2022*).
93. The CEMP must be certified in writing by the Council's Compliance Manager prior to construction works authorised by these consents first commencing, and the consent holder must undertake all activities authorised by these consents in accordance with the certified CEMP (including any certified variation).
94. The CEMP may be submitted in stages to reflect the design and construction programme. If staging is proposed and any of the matters in condition 91 are not relevant, a statement must be provided of why management of these effects are not relevant to the particular stage of works.
95. Any variation to the CEMP must be subject to certification by the Council.
96. Specific requirements for certain sections of the CEMP are set out in the conditions below.

Dust

97. The dust section must set out dust management practices during construction to achieve the outcomes of Conditions 59-60, and to minimise the risk of dust discharges having an offensive or objectionable effect beyond the boundary of land or structures owned or occupied by the consent holder, and must include:
- (a) A description of the potential Expansion Project construction dust sources;
 - (b) The methods to be used for controlling dust at each source including:
 - (i) Stabilisation of unconsolidated surfaces using water, wetting agents, chemical dust suppressants, and/or other surface modification methods;
 - (ii) Assessing meteorological conditions in advance to determine whether dust minimisation measures need to be activated or adjusted;
 - (iii) Regular sweeping of sealed surfaces;
 - (iv) Minimising vehicle speeds to 20km/h on unsealed surfaces; and

- (v) Handling and stockpiling practices, including guidelines for removal and stockpiling during windy conditions.
- (c) A description of inspection and monitoring procedures;
- (d) A system of training for employees and contractors to make them aware of the requirements of the dust management section of the CEMP;
- (e) A method for recording and responding to dust complaints from the public; and
- (f) Procedures for managing dust when staff are not on site.

Erosion and Sediment Control

98. The erosion and sediment control section of the CEMP must include measures for managing the decant discharge and any other construction stormwater discharges during reclamation, including the following information:
- (a) A plan of the location of the discharge;
 - (b) A description of the best practice methods that will be used to manage the quantity and quality of the discharge, so that the discharges achieve the turbidity conditions standards;
 - (c) Methods to avoid and contain spillages during pumping; and
 - (d) Methods to monitor, report on, and manage the decant discharge in accordance with Conditions 83-86; and
 - (e) Methods to establish whether contaminants are present in sediment that could pose an unacceptable risk to the health of marine organisms (that is, if they are above the relevant Interim ANZECC Guidelines for Sediment (ISQG-Low)), and if contaminants are observed above those guideline values, a strategy to manage the risk to a point that is deemed acceptable.

Avifauna

99. The Avifauna section of the CEMP must be written by a Suitably Qualified and Experienced ornithologist and must address the measures required to ensure compliance with conditions 61-67, set out construction protocols to avoid injury/mortality of coastal avifauna, and include:
- (a) Detailed descriptions and methodologies setting out how adverse effects on Kororā *Little Penguin* and Tōrea pango *Variable oystercatcher* will be managed, including:
 - (i) For Kororā *Little Penguin*, to ensure compliance with conditions 61 to 64 (relating to pre-construction surveys, implementation of construction works exclusion zones, and measures to reduce underwater noise from pile driving); and
 - (ii) For Tōrea pango *Variable oystercatcher*, to ensure compliance with conditions 65 to 67 (requiring protocols for pre- and during-constructions surveys, and implementation of exclusions zones around active nests and nesting birds).
 - (iii) Low impact sediment controls and dredging methodology as specified in the Coastal Avifauna Assessment; and

- (iv) Piling methodology for protection of Kororā as specified in the Coastal Avifauna Assessment.
- (b) Measures to minimise the effects of artificial construction lighting on avifauna, including a description of the outdoor lighting to be used during construction to reduce the potential for bird strike, and may include:
 - (i) targeting of luminaires;
 - (ii) use of shields or baffles;
 - (iii) use of light dimmers and/or timers for areas that are not constantly in use; and
 - (iv) use of coloured and/or LED lights to reduce overall light intensity.

Lizards

100. The Lizards section of the CEMP must be prepared by a Suitably Qualified and Experienced person, and should include:
- (a) Protocols of a comprehensive lizard survey prior to construction;
 - (b) Protocols of lizard salvage and vegetation clearance management during construction (if required); and
 - (c) Protocols of an ongoing programme of mammalian pest control post-development (if required).

Advice Note: *If native lizards are detected during the lizard survey to be present in affected areas, a permit under the Wildlife Act 1953 may be required for their handling and relocation.*

Marine Mammals

101. The Marine Mammals section of the CEMP must include (as an attachment) a Marine Mammal Management Plan (MMMP) which must detail:
- (a) The potential for adverse effects of noise produced by construction activities on marine mammals that may be present within Whangarei Harbour.
 - (b) Procedures for the verification of the in-situ noise levels produced from pile-driving activities by measuring the underwater noise of these activities within two weeks of pile-driving commencement, and a process for identifying and implementing any corresponding adjustments to mitigation actions, if required (including revised Marine Mammal Observation Zones (MMOZs) and associated pile driving prohibition procedures).
 - (c) Underwater noise management, including passive acoustic monitoring where appropriate, and implementation measures for the MMOZs provided in condition 101(f).
 - (d) Procedures for the continuation of acoustic monitoring at the established baseline stations across the Whangārei Harbour during pile-driving activities.
 - (e) Piling methodology procedures for the reduction of noise levels at source, which may include:

- (i) The use of vibro-driving where practicable;
- (ii) “Soft start” or “ramping up” procedures over a ten-minute period in accordance with best practice for impact and vibro-piling where practicable;

Advice Note: “Soft start” and “ramping up” are procedures whereby pile-driving energy is gradually increased to normal operating levels to give nearby marine animals an opportunity to move away from the area before sound levels increase to an extent that may cause discomfort or injury.

- (iii) The use of a sacrificial non-metallic (e.g. wooden) hammer cushion caps or dollies for impact piling to reduce underwater noise where practicable;
 - (iv) Modifications to pile striking by changing the contact time of the hammer (to reduce the noise generated by impacts through a reduction in the amplitude of the pile vibration) where practicable;
 - (v) Available technologies to reduce noise at source and their implementation where practicable (for example bottom-driven piles, air balloons inflated within open piles to reduce ringing, and/or bubble curtain technology); and/or
 - (vi) The use of available technologies to reduce underwater noise propagation (e.g. bubble curtains).
- (f) Protocols for the implementation of Marine Mammal Observation Zones (MMOZs) and associated pile driving prohibition procedures, including;
- (i) Establishment of MMOZs, including relevant procedures, within which personnel having the necessary training and experience will act as observers to search the MMOZ for marine mammals;
 - (ii) Reporting and logging of marine mammal sightings; and
 - (iii) Establishment of pile driving prohibition procedures if a marine mammal is cited within an MMOZ.
- (g) Protocols for the implementation of a Dredging Marine Mammal Observation Zone (DMMOZ) located 50 metres all around an actively dredging dredge vessel and associated dredging prohibition procedures including:
- (i) Establishment of the DMMOZ, including relevant procedures, within which personnel having the necessary training and experience will act as observers to search the DMMOZ for marine mammals;
 - (ii) Reporting and logging of marine mammal sightings; and
 - (iii) Establishment of dredging prohibition procedures if a marine mammal is cited within an DMMOZ.
- (h) Protocols for marine mammal training of construction staff and the required training and experience of the designated Marine Mammal Observers.

- (i) Vessel operating guidelines to minimise the risk of vessel strike (including compliance with the Marine Mammals Protection Regulations 1992), equivalent to the Hauraki Gulf Transit Protocol with relation to speed limits, watch keeping, and reporting.
 - (j) Protocols for reducing risk of entanglement of marine mammals in construction equipment.
 - (k) Protocols for the control of construction-related debris and waste, including waste management protocols for the secure onboard storage of items such as lines, nets, and waste to avoid entanglement of marine mammals or their ingestion of waste material.
 - (l) Protocols for the maintenance and inspection of marine-based construction equipment having the potential for effects on marine mammals (for example the monthly inspection and maintenance of marine silt curtains, if used).
 - (m) Procedures for the liaison with:
 - (i) the Department of Conservation *Te Papa Atawhai* to request up-to-date regional sighting information for the duration of construction works (excluding maintenance dredging), particularly for visiting baleen whales; and
 - (ii) Marsden Cove marina staff to request up-to-date sighting information for Leopard seals *Popoianore* in the Marina for the duration of construction works (excluding maintenance dredging). This might include, subject to agreement, installing appropriate signage at the marina with a contact telephone number for the Northport Service Centre; and
 - (iii) Iwi and/or hapū.
 - (n) Procedures, including timeframes, for reviewing management actions to ensure their continuing efficacy during operations.
 - (o) Incident reporting procedures.
102. The MMMP must be in general accordance with the draft MMMP provided as part of the resource consent application (*Enviser, Draft Marine Mammal Management Plan, September 2022*).

COMMERCIAL SHIPPING

Safety Management Plan ('SMP')

103. The consent holder must prepare a draft SMP and, following consultation on the content of the draft SMP with representatives from Channel Infrastructure, North Tugz Limited, Seafuels, the Whangarei Harbour Safety Committee, and the Harbourmaster (including provision of at least fifteen (15) working days for feedback to be provided), the consent holder must no later than three (3) months prior to the commencement of Expansion Project capital dredging provide the draft SMP to the Council for Certification.
104. The objective of the SMP is to specify procedures for the management of Expansion Project capital dredging, reclamation, and construction operations to ensure that any actual or potential adverse effects of capital dredging and reclamation on other commercial shipping operations in the Whangarei Harbour, with respect to harbour safety and vessel navigation, are appropriately managed.

105. In order to achieve the objective set out in condition 104, the SMP must, as a minimum, include:
- (a) The processes and procedures, including real-time communication protocols, that will be implemented to minimise disruption to commercial shipping schedules, including for ships visiting Channel Infrastructure and Northport;
 - (b) The process and procedures, including real-time communication protocols, that will be implemented to avoid, as far as reasonably practicable, disruption to commercial shipping movements to / from Channel Infrastructure's jetties 1 and 2;
 - (c) The measures/procedures that will be implemented in relation to Expansion Project capital dredging and reclamation operations to manage any potential conflicts between the capital dredging and reclamation programmes and other commercial shipping, including ships visiting Channel Infrastructure and Northport;
 - (d) The measures/procedures that will be implemented in relation to Expansion Project capital dredging, and reclamation operations to maintain the safety of all commercial shipping in Whangarei Harbour;
 - (e) Any changes required to the existing Dynamic Under Keel Clearance System as a result of the Expansion Project, and the necessary implementation processes for any such changes;
 - (f) The training and/or information regarding the above matters that will be provided to dredge vessel crews.
106. The consent holder must undertake all activities authorised by these resource consents in accordance with the Certified SMP.
107. Any amendments to the Certified SMP proposed by the consent holder must be supported by a report from a Suitably Qualified and Experienced person, following consultation by the consent holder with representatives from Channel Infrastructure, Seafuels, North Tugz Limited, the Whangarei Harbour Safety Committee, and the Harbourmaster. Any amendments to the MSP must be Certified by the Council.

Potential sedimentation at Channel Infrastructure jetties and turning basin

108. In order to inform the coastal process shoreline monitoring required by Conditions 202-205 the consent holder must undertake an initial pre-Expansion Project baseline sub-tidal, inter—tidal, and dry beach survey of the shoreline from Northport to Mair Bank (inclusive), including the Channel Infrastructure jetty area. The pre-Expansion Project baseline bathymetry survey must be completed prior to commencement of Expansion Project capital dredging and must expressly consider the bathymetry in the vicinity of the following areas:
- (a) the Channel Infrastructure jetty structures, including the berth pockets and turning basin, and
 - (b) other marine structures owned/operated by Channel Infrastructure (and existing as at 1 January 2023), including the firepump intake, outfall locations, boat ramp and spillway.
109. A report on the outputs of the pre-dredging baseline survey required by Condition 108 to be provided to Channel Infrastructure within 4 months of the completion of the survey.

Advice Note: *The consent holder agrees to also make available to Channel Infrastructure copies of all reports required by Condition 204 (reporting on the coastal process shoreline monitoring required to be undertaken by the consent holder) immediately after they are provided to Council in accordance with those conditions.*

110. The consent holder must procure an independent Suitably Qualified and Experienced person to review any reports or other data provided to the Council in accordance with Conditions 109 and 204, and to prepare a further report that, as a minimum:
 - (a) Describes the levels of sedimentation or erosion in the areas in the vicinity of the Channel Infrastructure structures and turning basin, and outlines any changes that have occurred since the pre-Expansion Project baseline bathymetry survey, and/or any preceding report produced under this condition; and
 - (b) Based on the monitoring undertaken, assess whether it is possible to determine that any materially increased sedimentation or erosion at the Channel Infrastructure structures or turning basin has been caused by the Expansion Project and to quantify the relative contribution of the Expansion Project to the observed changes to other processes.
111. The consent holder must no later than 18 months following the completion of Expansion Project capital dredging submit the report required by condition 110 to Channel Infrastructure. Thereafter, reports must be submitted annually to Channel Infrastructure for a further five years. At the end of that five year period, if the opinion of the independent Suitably Qualified and Experienced person is that material changes to levels of sedimentation or erosion in the areas in the vicinity of the Channel Infrastructure structures and turning basin continue to be observed, then monitoring and reporting in accordance with condition 112 must be reviewed and updated to reflect the observed changes and establish a new monitoring regime and timeframe..
112. Where a report produced under condition 111 concludes that the Expansion Project has contributed to materially increased sedimentation or erosion at the Channel Infrastructure structures or turning basin, the consent holder must engage with Channel Infrastructure to determine an appropriate mechanism to fund the actual and reasonable costs for any:
 - (a) measures including maintenance dredging required to be undertaken to return the levels of sedimentation at the Channel Infrastructure structures or turning basin to pre-Expansion Project levels, and/or
 - (b) monitoring and/or scour protection works required to be undertaken to manage erosion at the Channel Infrastructure structures or turning basin due to the Expansion Project.
113. The consent holder will contribute funding for the actual and reasonable costs to implement the measures and works in condition 112 (a) and (b) proportionate to the consent holders' contribution to increased sedimentation or erosion at the Channel Infrastructure structures or turning basin.

Advice Note: *The above conditions do not require the consent holder to obtain any authorisations required for any maintenance dredging or scour protection works at the Channel Infrastructure structures or turning basin. It is anticipated that potential maintenance dredging and/or scour protection works will be able to be carried out pursuant to existing resource consents held by Northport and Channel Infrastructure. If*

additional resource consents are required, obtaining such consents must be the responsibility of the consent holder.

Potential changes to mooring forces

114. The consent holder must engage an independent Suitably Qualified and Experienced person(s) to:
- (a) Prior to finalising the design of the reclamation, wharf, tug berthing facility, and Water Taxi Pontoon in accordance with Condition 39:
 - (i) confirm that the model used to inform the report 'Hydrodynamic Modelling Additional Output Locations: of Proposed Reclamation and dredging Layout on Hydrodynamics' (MetOcean Solutions, April 2023) accurately reflects the actual (i.e. constructed/existing) format and extent of structures within the study area, and if necessary to update the model's parameters relied on in that report to reflect the environment as it exists; and
 - (ii) using the model referenced in Condition 114(a)(i) above, prepare a report describing the changes in hydrodynamics in the immediate vicinity of the Channel Infrastructure structures (including berths) and turning basin resulting from the Expansion Project; and
 - (iii) using the information obtained from (ii) above, determine whether any changes to the design of the reclamation, wharf, tug berthing facility, and Water Taxi Pontoon are required in order to manage predicted changes to hydrodynamics and minimise effects on the Channel Infrastructure structures (including berths) and turning basin including the mooring of commercial vessels frequenting Channel Infrastructure structures;
 - (b) Prior to construction commencing, review the modelled changes in current velocities predicted in the report in condition 114 (a)(ii) reflecting the finalised design subject to Condition 114(a)(iii) above and either:
 - (i) confirm that the modelled changes in hydrodynamics will not materially change mooring of commercial vessels frequenting the Channel Infrastructure structures (including berths), or
 - (ii) if appropriate, recommend that instruments be deployed to quantify the post-construction changes in hydrodynamics in the immediate vicinity of the Channel Infrastructure structures (including berths) and turning basin and prepare a report in accordance with Condition 114(c)(c) below; and
 - (c) Produce a report for certification by the Council which must, as a minimum:
 - (i) Describe the changes in hydrodynamics in the immediate vicinity of the Channel Infrastructure structures (including berths) and turning basin, and whether those changes are materially different to the modelled changes predicted in the report required by condition 114(a)(ii) reflecting the finalised design subject to Condition 114(a)(iii) above; and
 - (ii) If the changes in hydrodynamics are materially different to the modelled changes predicted in the report required by condition 114(a)(ii) reflecting the finalised design subject to Condition 114(a)(iii) above, assess whether it is possible to determine that any such changes in

hydrodynamics at the Channel Infrastructure structures (including berths) or turning basin have been caused by the Expansion Project; and

- (iii) Assess whether any changes determined in Condition 114(c)(ii) above will give rise to a material change to the arrival, departure and mooring of commercial vessels frequenting the Channel Infrastructure jetties.

115. The consent holder must provide the reports produced pursuant to Condition 114(a)(ii) and 114(c), any confirmation pursuant to Condition 114(b)(i) to Channel Infrastructure within one month of their completion.

116. Where a report produced pursuant to Condition 114 concludes that the Expansion Project has contributed to changes in hydrodynamics at the Channel Infrastructure structures (including berth pockets) or turning basin which are materially different to predicted in the report required by Condition 114(a)(ii) above and which will materially affect mooring of commercial vessels frequenting the Channel Infrastructure structures, the consent holder must:

- (a) Engage with Channel Infrastructure to determine an appropriate mechanism to upgrade the existing mooring equipment to accommodate the changed hydrodynamics and ensure that the mooring capability of Channel Infrastructure's structures (including berth pockets) is maintained; and
- (b) Contribute funding for the actual and reasonable costs necessary to upgrade the existing mooring equipment proportionate to the consent holders' contribution to changed hydrodynamics affecting the mooring equipment.

Advice Note: *The above conditions are in addition to the other design requirements in these conditions, and the other coastal process monitoring for geomorphological changes in these conditions. They are specifically aimed to provide assurance for Channel Infrastructure that any actual effects associated with the Expansion Project on mooring forces at its jetties will be consistent with the predicted (modelled) effects, and further, to facilitate a management response in the unlikely event that the actual effects are materially different than predicted.*

Full mission bridge simulation

117. Prior to construction of the port expansion, the consent holder must provide to Council for certification results of Full Mission Bridge Simulations (FMBS) with outcomes and recommendations (e.g. ship size, environmental conditions, tug capacities and emergency response) agreed by an independent Suitably Qualified and Experienced observer. The FMBS are to include:

- (a) Navigation to and from pilot boarding through to berthing at the extended berth associated with the resource consent application, all tide conditions, agreed limiting conditions (i.e. Harbourmaster limits for wind, waves, currents) with real time / model inputs into simulator;
- (b) Assessment of passing ship, swing safety, emergency planning / procedures and minimum towage requirements;
- (c) Manoeuvres into/out of Channel Infrastructure's jetty 3 bunker facility with new facility berths occupied / passing effects and safety / emergency procedures and risk assessment.

Advice Note: *The FMBS's are to include independent verification / observer as well as representation from other industry (i.e. CINZ and Seafuels). The comprehensive inclusion of MetOcean modelling and limiting*

criteria for navigation, together with suitable sized (design) vessels and support vessels (tugs) to enable a range of arrival and departure manoeuvres as well as ad-hoc (unplanned) emergencies such as loss of steerage and / or loss of propulsion. The FMBS must also include a comprehensive full-scale mock-up of the simulated ships' bridge including a high-resolution, full-scale display of the relevant ship and surrounding area (as seen from the ship's bridge), the relevant controller hardware where installed on an existing ship such as telegraph, thrusters, independent helm and Azi Pods, together with other instruments required for navigation and manoeuvring.

Oil spill risk assessment

118. At least six months prior to Practical Completion, the consent holder must provide an Oil Spill Risk Assessment (OSRA) to Council for certification. The OSRA must be for the purpose of informing any required updates or changes to the Northland Marine Oil Spill Contingency Plan and associated spill response procedures and equipment requirements. The OSRA must, at a minimum, consider all navigation (i.e. whole transit from boarding to departure of Pilot), emergency procedures, and potential sources and scale of oil spill and response times.

DREDGING

Capital dredging

119. Conditions 120-179 apply to capital dredging only.

General

120. The Consent Holder must not undertake capital dredging between the months of 1 October to 31 January in two successive years.
121. At least ten (10) working days in advance of the date of the commencement of capital dredging associated with these consents, the consent holder must:
- (a) notify the Council of the commencement of capital dredging; and
 - (b) advertise the anticipated dredging in the Northern Advocate (or equivalent); and
 - (c) advise the anticipated location and timing of the dredging on its website.
122. Capital dredging must:
- (a) be undertaken only within the area marked "Extent of Proposed Dredge Area" on the plan C04 contained in **Appendix 1**; and
 - (b) result in a Declared Depth of no deeper than 14.5 metres for Area G on and 16.0 metres for Area H on plan C04 contained in **Appendix 1**.
123. The consent holder must record the locations and periods of all dredging, the method of dredging, and the quantities of in situ material dredged (in cubic metres) and must provide these records to the Council within 20 working days after the dredging work is completed.

124. Except for incidental dredging discharges, all seabed material dredged during the capital dredging programme must be:
- (a) Placed in the reclamation associated with the Expansion Project; or
 - (b) Deposited on land at Marsden Point presently owned by the consent holder or Marsden Maritime Holdings Ltd; or
 - (c) Deposited in any other authorised location.
125. The consent holder must notify the Council within ten (10) working days following the date of the completion of capital dredging works associated with these consents.
126. As soon as practicable following completion of the capital dredging, the consent holder must provide a bathymetric plan defining the location and depth of the dredging area and batters within the CMA to the entities listed below. The plan must include GPS co-ordinate data (using Transverse Mercator 2000 or an equivalent system).

Hydrographic Surveyor

Maritime New Zealand

Toitū Te Whenua Land Information New Zealand PO Box 25620
PO Box 5501 Wellington 6140
Wellington 6145

Northland Regional Council

Channel Infrastructure

Private Bag 9021 Private Bag 9024
Whangarei Mail Centre Whangarei 0148
Whangarei 0148

Timing of capital dredging with respect to capital dredging authorised by AUT.037197.01-13

127. Capital dredging under these consents must not commence:
- (a) during capital dredging authorised under consents *AUT.037197.01-13*; or
 - (b) within a 6 month period following the completion of a capital dredging event authorised under consents *AUT.037197.01-13* –
- in each case only where the capital dredging event undertaken pursuant to consents *AUT.037197.01-13* is within Harbour Area A (inner), as described in those consents.

Advice Note: Channel Infrastructure holds resource consents *AUT.037197.01-13* for the deepening and realignment of the Whangārei Harbour shipping channel and associated works. Condition 79 of those resource consents requires the consent holder to notify the Council, and other parties, of each dredging event at least two (2) weeks before commencing dredging. Condition 80 also requires the consent holder

to publicly advertise the location and timing of dredging in the Northern Advocate at least one (1) week, but not more than two (2) weeks, in advance of commencing dredging operations on each occasion.

Advice Note: Condition 127 is for the purpose of managing potential cumulative marine ecological effects associated with capital dredging under these resource consents and consents AUT.037197.01-13 held by Channel Infrastructure.

Capital Dredging Management Plan (Capital DMP)

128. The consent holder must, at least three (3) months prior to capital dredging commencing, submit to the Council a Capital Dredging Management Plan (Capital DMP) for certification.
129. The objective of the Capital DMP is to describe the capital dredging plant, work methodologies, and environmental management systems to be used for the delivery of the capital dredging to ensure that any actual or potential adverse effects associated with capital dredging are appropriately managed. The Capital DMP may cross reference or include relevant sections of the CEMP, particularly those relating to Wildlife.
130. The plan must provide the following information:
 - (a) A description of proposed works, together with drawings;
 - (b) A description of the number and types of dredges to be used;
 - (c) A dredging programme including a timetable, sequence of events and expected duration of all proposed works;
 - (d) A description of dredging methodology to be used;
 - (e) A description of how the location and quantities of Dredge Spoil and/or in situ seabed material are to be recorded;
 - (f) A description of the maintenance of equipment and systems that are to be used during dredging;
 - (g) Community liaison arrangements, including arrangements for liaising with Channel Infrastructure;
 - (h) A description of the storage and handling of hazardous substances during dredging;
 - (i) Protocols for managing accidental discharge of sediments or other contaminants into the CMA;
 - (j) A description of the outdoor lighting to be used to reduce the potential for bird strike, for example targeting of luminaries and the use of shields or baffles;
 - (k) A description of measures to manage any conflicts between the dredging program and organised sporting events in Whangārei harbour;
 - (l) A description of a turbulence reducing (green or environmental) valve to be incorporated with the overflow system (if a TSHD is used);
 - (m) A description of all other relevant measures, systems, and training that will be implemented to manage adverse effects on the receiving environment during the operation of the dredge vessel; including measures relating to biofouling, management of waste, and refuelling.
 - (n) Details of the training for personnel involved in the operation of the dredge so that they may recognise any potential archaeological material including koiwi tangata or taonga, and to ensure compliance with the conditions of these consents and the DMP;

- (o) Measures required to ensure compliance with relevant terrestrial noise limits in condition 57 including the following matters:
 - i) Procedures for noise monitoring at the commencement of capital dredging for each dredge used to determine actual noise emissions;
 - ii) Ongoing monitoring methods and procedures to ensure compliance with the noise limits;
 - iii) Procedures for the promotion of the awareness of noise management for the crew of each dredging vessel, including maintenance of noisy plant or equipment; and
 - iv) A procedure for the receipt, response and management of any noise related complaints received during the dredging period.
 - (p) Procedures to be implemented to manage underwater dredging noise;
 - (q) Other relevant requirements specified in these conditions of consent (including other management plans); and
 - (r) A Contingency response plan.
131. The Capital DMP must be certified in writing by the Council prior to capital dredging first commencing, and the consent holder must undertake capital dredging in accordance with the certified Capital DMP.
132. Any variation to the Capital DMP must be subject to certification by the Council.
133. The consent holder must provide the Capital DMP, and any variations to the Capital DMP, to Channel Infrastructure within ten (10) working days of the document's certification by the Council.
134. Appropriate navigation signals must be shown at all times during dredging activities.

Environmental Monitoring and Management Plan (EMMP)

135. At least three (3) months prior to the commencement of marine ecology assurance monitoring required by these consents, the consent holder must provide an EMMP to the Council for certification.
136. The objectives of the EMMP are:
- (a) *Turbidity monitoring and management*: to detail how capital dredging turbidity monitoring and management actions are implemented to minimise the risk of elevated turbidity that can be attributed to capital dredging and to ensure that turbidity during dredging does not exceed the expected background combined with the modelled turbidity, therefore ensuring that related effects on sensitive marine ecology (including SEAs) are within predicted levels; and
 - (b) *Marine ecology assurance monitoring*: to facilitate the comparison of changes in the marine receiving environment caused by Expansion Project capital dredging with those predicted in the information filed in support of the resource consent application, including by:
 - (i) Characterising the responses of surrounding sub-tidal and inter-tidal habitats and benthic communities to sediments suspended and deposited offsite during channel dredging, and subsequent changes after dredging is complete.
 - (ii) Confirming whether benthic habitats and communities similar to those currently existing re-establish on the dredged basin once dredging is complete, and if not, determine why.

- (c) *Bathymetric and shoreline surveys*: to collect spatial data on the seabed and shoreline to assess any physical changes to the coastline and seabed that may result from the Expansion Project and potential actions if adverse changes associated with the Expansion Project are identified through monitoring.

137. The EMMP must include the following topics:

Turbidity monitoring and management

- (a) The monitoring of turbidity plumes, including roles and responsibilities of groups involved in monitoring;
- (b) Management actions to be undertaken in response to an exceedance of a turbidity trigger or Tier 3 Compliance Level;

Marine ecology assurance monitoring

- (c) Detailed assurance monitoring survey methodologies providing for:
 - (i) sub-tidal marine ecology assurance monitoring in accordance with Conditions 171-172;
 - (ii) inter-tidal marine ecology assurance monitoring in accordance with Conditions 171-175;
 - (iii) the collection of assurance monitoring data on the following key physical and ecological indicators:
 - sediment grain size;
 - the composition of sub-tidal and inter-tidal infaunal communities (including diversity, abundance, evenness);
 - the distribution and cover of seagrass and macroalgae beds; and
 - the presence (and/or abundance) and distribution of sub-tidal epifauna (or indicator species).
- (d) Where relevant, methodologies for the analysis of marine ecology assurance monitoring data collected;
- (e) A process for the refinement of the Marsden Bay seagrass monitoring area pursuant to condition 175;

Bathymetric and shoreline surveys:

- (f) The methodologies for the bathymetric and shoreline surveys required by Conditions 203 and 204; and

Miscellaneous

- (g) The EMMP content requirements specified in other conditions of these consents;
- (h) Reporting requirements specified in these conditions of consent and otherwise needed to achieve the objectives of the EMMP;
- (i) Identification of any other relevant management plans (for example the CEMP, Capital DMP, Maintenance DMP) and the linkages with those plans; and
- (j) Documentation procedures for handling complaints relating to capital dredging.

Monitoring of Turbidity

138. As part of the EMMP, the consent holder must detail how the capital dredging turbidity plumes are to be monitored to:
- (a) Confirm whether or not turbidity plumes exceed the turbidity triggers and Tier 3 Compliance Level that are to be specified under condition 141;
 - (b) Assess whether a turbidity event is determined to be an extraordinary natural event; and
 - (c) Assess the relative contributions of dredging and non-dredging sources to observed turbidity.
139. The EMMP must include the following details, and the Consent Holder must consult with the Council on these details at least 60 working days prior to providing the EMMP for certification:
- (a) The monitoring equipment to be used, including the use of nephelometers;
 - (b) The process for pre deployment calibration, in-situ validation and post deployment verification.
 - (c) The process for data processing, including data editing, and replacing missing records.
 - (d) The location of the monitoring equipment;
 - (e) The setting up and maintenance of monitoring equipment;
 - (f) The establishment of real-time monitoring; and
 - (g) Data management;
 - (h) Quality assurance /quality control methods including management of missing and aberrant data.

Management Actions in Response to Turbidity Plumes

140. As part of the EMMP, the consent holder must detail the management actions to be carried out in response to elevated turbidity as defined by the turbidity Tier 1 and Tier 2 triggers.
141. To achieve condition 143, the EMMP must include the following:
- (a) Details of the rationale for classifying the turbidity observations into two (2) tiers of turbidity triggers and one (1) Tier 3 Compliance Level;
 - (b) Details of how the Tier 1, and Tier 2 turbidity triggers and Tier 3 Compliance Level are determined using the methodology referred to in condition 162;
 - (c) Setting out the Intensity values for Tier 1, and Tier 2 turbidity triggers and Tier 3 Compliance Level which are based on the 80th, 95th, and 99th percentile of baseline plus Predicted Dredging Turbidity respectively; and
 - (d) Description of the management actions (including potentially ceasing dredging at a particular location) set out in condition 143 and how they may be applied by the dredge operator when a Tier 1, or Tier 2 turbidity trigger or Tier 3 Compliance Limit is exceeded.
142. The EMMP must also include procedures on:
- (a) Investigating whether the exceedance of the trigger is caused by capital dredging; and

- (b) Where necessary, increasing monitoring effort to better understand the characteristics of the turbidity causing an Exceedance, such as carrying out manual turbidity measurements in the vicinity of the monitoring station.
143. The EMMP must include a suite of management response measures that may be undertaken in response to an Exceedance of a turbidity trigger, including:
- (a) A change in the location of dredging;
 - (b) A change in the dredging process, including timing of dredging within the tidal phase; and/or
 - (c) The cessation of dredging in the vicinity of a telemetered turbidity monitoring station.
144. The EMMP must be in general accordance with the draft EMMP provided as part of the resource consent application [insert ref].
145. The EMMP must be certified in writing by the Council prior to commencement of pre-dredging marine ecology assurance monitoring required by these conditions, and the consent holder must undertake capital dredging, and pre-, during-, and post-dredging marine ecology assurance monitoring and reporting, in accordance with the certified EMMP (including any certified variation).
146. Any variation to the EMMP must be subject to certification by the Council.
147. A copy of the EMMP and all amended EMMPs must be provided to iwi/hapū by the Consent Holder as soon as practicable, and in any event not more than five (5) Working Days following certification.

Capital dredging turbidity monitoring

148. The consent holder must undertake a capital dredging monitoring and reporting programme in accordance with conditions 150 to 154.
149. The telemetered turbidity monitoring stations must be operational whilst dredging is undertaken. If an instrument fails, or requires maintenance, dredging can only continue if:
- (a) The instrument (or an equivalent) is replaced within 48 hours; and
 - (b) Manual turbidity readings are collected on a 4 hourly basis during daylight hours.
150. The purpose of the capital dredging monitoring programme is to:
- (a) Ensure that turbidity during dredging does not exceed the expected background combined with the modelled turbidity, therefore ensuring that the related effects on sensitive marine ecology (including SEAs) are within predicted levels.
 - (b) Provide baseline water quality information to enable the calculation of trigger levels; and
 - (c) Monitor capital dredging so that any management actions can be implemented to address unanticipated environmental effects.
151. The consent holder must carry out baseline water quality monitoring required by conditions 155 to 156 over a period of at least one (1) year, prior to the first commencement of capital dredging authorised by these consents.

152. There must be no fewer than three (3) stations carrying out telemetered monitoring of turbidity (NTU) for the purposes of baseline water quality monitoring and capital dredging management.
153. For the purposes of the baseline water quality monitoring, the consent holder must
 - (a) Monitor for turbidity (in NTU/FTU) at all locations and salinity at one location. Each parameter must be monitored at a frequency of not less than once every 15 minutes. The specific location of the water quality monitoring stations, the parameters to be monitored at each station, and the methodology and equipment to be used are to be detailed in the EMMP.
 - (b) Monitor turbidity for at least 12 months, with a target of 95% data recovery over the 12 months.
 - (c) At each monitoring location, monthly water sampling must be undertaken to contemporaneously record the TSS and NTU/FTU levels at that location.
154. The monitoring programme contained in the EMMP must be designed and carried out by a person(s) who is suitably experienced in marine environment monitoring.

Reporting

155. The consent holder must prepare a baseline water quality monitoring report. The report must:
 - (a) Present and discuss the results of baseline water quality monitoring; and
 - (b) Detail the pre deployment calibration, in-situ field validation, data processing, and quality assurance.
 - (c) Recommend any amendments to the EMMP for the purposes of future water quality monitoring required by these consents to change the location of a station(s) within the relevant zone or the monitoring parameters at each station, provided that the amended locations or monitoring parameters at the station better achieve the purpose of the EMMP.
156. The baseline water quality monitoring report must be provided to the Council at least two (2) months prior to the first commencement of capital dredging. This report must be used to re-certify the EMMP to set the turbidity triggers and Teir 3 compliance limit.
157. During and after capital dredging, the consent holder must provide to the Council, at least quarterly, a report that summarises the:
 - (a) Water quality monitoring data from the previous quarter and any monitoring or equipment issues that occurred during that period;
 - (b) Details of equipment calibration, in situ field validation, data processing, and quality assurance.
 - (c) Collation of other monitoring undertaken; and
 - (d) Details of any Exceedance(s), the management response measures carried out and the results of monitoring after the management response measures have been completed.
158. There must be no fewer than two (2) quarterly reports prepared immediately after capital dredging is completed.
159. Within nine (9) months of the completion of capital dredging, the consent holder must provide the Council a Dredging Turbidity Monitoring and Management Report. The report must provide a summary of the turbidity monitoring and management response measures carried out during the capital dredging

(excluding for marine ecology assurance monitoring, the requirements for which are set out below) and must include, but not be limited, to the following:

- (a) Summary of the turbidity monitoring undertaken; and
- (b) Summary of the management actions carried out and the results of monitoring after the management actions have been completed.

Turbidity Triggers and Tier 3 Compliance Limit

Establishment of turbidity triggers and Tier 3 Compliance Level:

160. The consent holder must establish turbidity triggers and a Tier 3 Compliance Limit for each of the telemetered turbidity monitoring locations. There must be two (2) tiers of turbidity triggers and one (1) Tier 3 Compliance Limit, each with an Intensity and Allowable Duration value.
161. The purpose of turbidity triggers is to:
 - (a) Initiate a management action(s), as detailed in the EMMP and required under condition 143, in the event of a Tier 1 or 2 turbidity trigger exceedance;
 - (b) Cease dredging in the vicinity of a monitoring location in the case of an Exceedance of the Tier 3 Compliance Limit as set out in conditions 166 to 170.
162. Turbidity triggers and Tier 3 Compliance Levels must be established in accordance with the methodology (including the modified-Intensity-Frequency-Duration approach) in the document titled "*Turbidity Monitoring for the Northport Expansion Project*" (1 June 2023, Environmetrics Australia) included as **Appendix 3**.
163. Upon completion of the baseline water quality monitoring, the Intensity component of the turbidity triggers and Tier 3 Compliance Level for each telemetered turbidity monitoring location must be calculated using the baseline turbidity data referred to in Condition 151 plus the Predicted Dredging Turbidity at that location, using the methodology referred to in Condition 162.
164. The consent holder must provide to the Council, at least two (2) months prior to commencement of capital dredging, a written report prepared by a Suitably Qualified and Experienced person which demonstrates that the turbidity triggers and Tier 3 Compliance Level have been established in accordance conditions 162 and 163.
165. The report prepared under condition 164 must be certified in writing by the Council's Compliance Manager prior to the first commencement of capital dredging authorised by these consents.

Tier 3 Compliance Levels and Exceedance Events

166. The telemetered turbidity monitoring stations required under condition 152 are to be used to determine whether there has been a Tier 3 Compliance Level Exceedance.

167. If a monitoring station records an Exceedance of the Tier 3 intensity value for more than 7.2 hours over a rolling 30-day period, capital dredging must cease in the vicinity of that monitoring station and only recommence in the following circumstances:
- (a) The number of Tier 3 “exceedance hours” has fallen below the 7.2 hours available at that station over a rolling 30-day period, or
 - (b) The turbidity recorded at that station is less than the Tier 3 NTU/FTU intensity value calculated for that station; or
 - (c) The exceedance is due to an extraordinary natural event as detailed in Condition 169.
168. The consent holder must ensure that methods for managing and achieving compliance with the requirements of condition 167 must be set out in the EMMP.
169. Notwithstanding condition 167, capital dredging may continue in the vicinity of a telemetered turbidity monitoring station provided that:
- (a) The consent holder provides the Council a written report, within 24 hours of a Tier 3 Compliance Level Exceedance referred to in condition 167 which demonstrates that the elevated turbidity is due to an extraordinary natural event and not attributable to dredging; and
 - (b) If the Council, acting in its technical capacity, disagrees with the findings of the report the capital dredging must cease in the vicinity of the affected monitoring station(s) and only recommence in accordance with condition 167(a) and 167(b). If the Council provides no written response after two (2) working days then it is deemed that the Council agrees with the findings of the report prepared under Condition 169(a) and dredging may continue.
- Advice Note:** *An extraordinary natural event should be a significant and self-evident natural event that has clearly caused an Exceedance of the Tier 3 Compliance Level at one (1) or more of the turbidity monitoring stations. The high-concentration turbidity plumes would have been generated from events such as a tsunami, a weather event causing significant flooding, extreme swells, or a land slip.*
170. The consent holder must place a copy of the report prepared under Condition 169(a) on its website.

Marine ecology assurance monitoring

Sub-tidal monitoring

171. The consent holder must undertake marine benthic ecology assurance monitoring of sub-tidal biota and sediments:
- (a) in accordance with the certified EMMP; and
 - (b) in general accordance with the following table and plan:

Timing requirements of each sub-tidal sampling round (✓ means sampling is required; ✗ means no sampling is required)

Area	Within a one year period within 18 months prior to dredging commencing		During dredging (except in the dredge basin)		One year after dredging is complete		Three years after dredging is complete	
	Spring / summer	Autumn / winter	Spring / summer	Autumn / winter	Spring / summer	Autumn / winter	Spring / summer	Autumn / winter
Existing Dredge	✓	✓	✗	✗	✓	✓	✓	✓
West Impact	✓	✓	✓	✓	✓	✓	✗	✗
East Impact	✓	✓	✓	✓	✓	✓	✗	✗
North Impact	✓	✓	✓	✓	✓	✓	✗	✗
Reference	✓	✓	✓	✓	✓	✓	✓	✓

Plan showing indicative sample areas for sub-tidal benthic ecological monitoring



172. The spring/summer and autumn/winter sampling rounds required in Condition 171 must be as close to six (6) months apart as practicable.

Inter-tidal and sub-tidal monitoring

173. The consent holder must undertake marine ecology assurance monitoring of inter-tidal infauna, sediments, and seagrass:

- (a) in accordance with the certified EMMP; and
- (b) in general accordance with the following table and plans:

Timing requirements of each inter-tidal sampling round (✓ means sampling is required; * means sampling is required if the previous monitoring round shows that scientifically significant adverse effects have occurred)

Area	Within a one year period within 18 months prior to dredging commencing		During dredging		One year after dredging is complete		Three years after dredging is complete	
	Spring / summer	Autumn / winter	Spring / summer	Autumn / winter	Spring / summer	Autumn / winter	Spring / summer	Autumn / winter
Marsden Bay benthic sediments and ecology	✓	✓	✓	✓	✓	✓	*	*
Tamaterau benthic sediments and ecology (reference location)	✓	✓	✓	✓	✓	✓	*	*
Marsden Bay inter-tidal and sub-tidal seagrass	✓	✓	✓	✓	✓	✓	*	*

Plan showing indicative sample areas for inter-tidal sediment and infauna monitoring



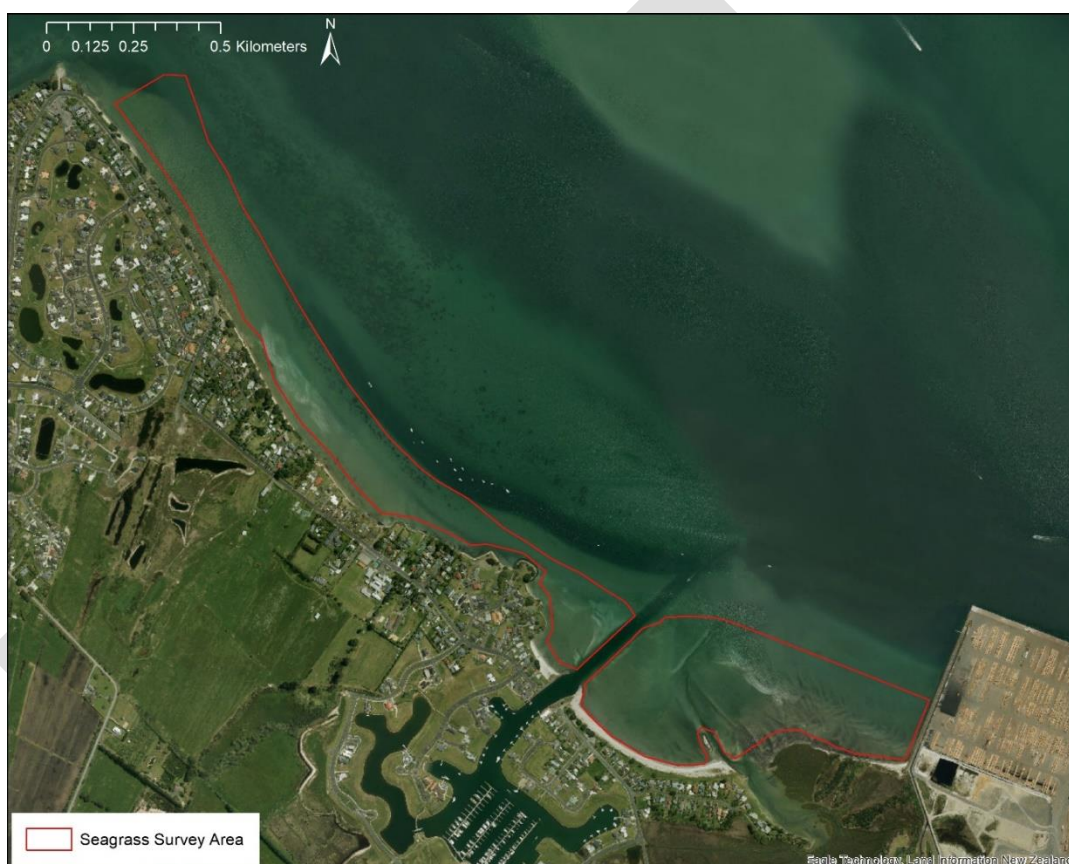
174. The spring/summer and autumn/winter sampling rounds required in condition 173 must be as close to six (6) months apart as practicable.

175. The Marsden Bay seagrass monitoring required by condition 173 must include either:
- a) The mapping of seagrass at Marsden Bay using georeferenced and ortho-corrected photogrammetry obtained by UAV (drone) survey; or if this is not practicable,
 - b) Video transects through intertidal and subtidal seagrass beds.

The initial survey area must be in general accordance with the below plan. Subsequent survey areas may be refined following the process to be set out in the EMMP.

Advice Note: Video transects can be used if drone photogrammetry is prevented by drone flight restrictions, or water visibility is insufficient to map subtidal beds.

Indicative area for Marsden Bay inter-tidal and sub-tidal seagrass monitoring



Marine ecology assurance monitoring reporting

176. After the completion of each set of annual (i.e. spring/summer and autumn/winter) marine ecology assurance monitoring required by these consents, the consent holder must engage a Suitably Qualified and Experienced marine ecologist to produce a report detailing the assurance monitoring undertaken during that period, including with reference to any previous assurance monitoring in order to illustrate any relevant trends over time.
177. Each monitoring report required under Condition 176 must be provided to the Council within three (3) months of the completion of the relevant set of annual marine ecology assurance monitoring.

Advice Note: *The marine ecology assurance monitoring conditions above are consistent with the document titled "Ecological Assurance Monitoring Plan" attached to the Draft EMMP submitted during the resource consent hearing for the expansion Project. The above conditions are intended to set out the key requirements and standards of the marine ecology assurance monitoring that is required under these consents, with the EMMP to set out the detailed monitoring methodologies.*

178. The last monitoring report covering the period 3-years after dredging is completed in accordance with Conditions 171 and 173, must consider and assess whether the observed ecological effects of dredging are within the bounds of those anticipated in the report titled Northport expansion project: Assessment of marine ecological effects lodged in support of this consent. If the observed effects exceed those anticipated, the Consent holder must engage a suitably qualified and experienced person to assess whether benthic habitats and communities are recovering, but at a lower than anticipated rate; and:
- (a) If so, provide an estimate of likely timeframes for residual effects to resolve and recommendations on further monitoring to track that recovery; and
 - (b) If recovery is not occurring, to assess the reasons why and options, including a proposal for remedying or mitigating those effects.
179. In the event that Condition 178(b) applies, and following certification by the Council, the consent holder must implement the proposed remediation or mitigation measures to the satisfaction of the Council.

Maintenance dredging

180. Conditions 181-197 apply to maintenance dredging only.
181. Maintenance dredging must not be undertaken between 1 October and 31 January inclusive unless it is necessary to do so as a result of unforeseen events or there is no practicable alternative timing.
182. Maintenance dredging must:
- (a) Only be undertaken within the area marked "Extent of Proposed Dredge Area" on the plan C04 contained in **Appendix 1**; and
 - (b) Result in a Declared Depth of no deeper than 14.5 metres for Area G and 16 metres for Area H on plan C04 contained in **Appendix 1**.
183. Except for urgent dredging required for navigational safety or stability of structures, at least ten (10) working days in advance of the date of the commencement of a maintenance dredging programme associated with these consents, the consent holder must:
- (a) Notify the Council of the intended maintenance dredging;
 - (b) Advertise the intended maintenance dredging in the Northern Advocate (or equivalent); and
 - (c) Advise the anticipated location and timing of maintenance dredging on its website.
184. The consent holder must ensure that a copy of this consent is provided to the person who is to carry out the dredging, prior to any work commencing. A copy of the consent must be held on the dredger.

185. When any maintenance dredging is carried out, the consent holder must record the periods of dredging, the method of dredging and the quantities of material dredged (in cubic metres) and must provide these records to the Council within twenty (20) working days after the maintenance dredging work is completed.
186. Maintenance dredging must not cause any of the following effects on the quality of the receiving waters, as measured at or beyond a 100 metre distance from the marked "Dredge Area" on [plan]:
 - (a) The turbidity of the water (NTU/FNU) or visual clarity (Secchi depth) must not be increased by more than 33% of the background turbidity at the time of measurement;
 - (b) The production of any conspicuous oil or grease film, scums or foams, or floatable or suspended materials, or emissions of objectionable odour; and
 - (c) The destruction of natural aquatic life by reason of a concentration of toxic substances.
187. During periods of maintenance dredging, visual checks must be carried out daily and in the event that such a check shows evidence of conspicuous change in visual clarity in the water column, testing must be carried out and reported in accordance with Condition 186.
188. The results of each monitoring campaign must be reported to the Council within one (1) week of monitoring being completed, or within 24 hours of any non-compliance.
189. Except for incidental dredging discharges, all material dredged during maintenance dredging must be:
 - (a) Placed in the reclamation associated with the Expansion Project; or
 - (b) Deposited on land at Marsden Point presently owned by the consent holder or Marsden Maritime Holdings Ltd; or
 - (c) Deposited in any other authorised location.
190. The consent holder must notify the Council within ten (10) working days following the date of the completion of a maintenance dredging programme associated with these consents.
191. On completion of a maintenance dredging programme, the consent holder must provide to the Council a bathymetric plan defining the location and depth of the dredging area and batters within the CMA. The plan must include GPS co-ordinate data (using Transverse Mercator 2000).

Maintenance Dredging Management Plan (Maintenance DMP)

192. At least three (3) months prior to maintenance dredging commencing, the consent holder must submit to the Council a Maintenance Dredging Management Plan (Maintenance DMP) for certification. The objective of the Maintenance DMP is to describe the maintenance dredging plant, work methodologies, and environmental management systems to be used to ensure that potential adverse effects associated with maintenance dredging are appropriately managed.
193. The plan must provide the following information:
 - (a) A description of proposed works, together with drawings;

- (b) A description of the number and types of dredges to be used;
 - (c) A dredging programme including a timetable, sequence of events and expected duration of all proposed works;
 - (d) A description of dredging methodology to be used;
 - (e) A description of how the location and quantities of Dredge Spoil are to be recorded, and (if necessary) evidence that the dredge spoil disposal location is appropriately authorised;
 - (f) A description of the maintenance of equipment and systems that are used during dredging;
 - (g) Community liaison arrangements, including arrangements for liaising with Channel Infrastructure;
 - (h) A description of the storage and handling of hazardous substances during dredging;
 - (i) Protocols for managing accidental discharge of sediments or other contaminants into the CMA;
 - (j) A description of the outdoor lighting to be used to reduce the potential for bird strike, for example targeting of luminaries and the use of shields or baffles;
 - (k) A description of measures to manage any conflicts between the dredging program and organised sporting events in Whangārei harbour;
 - (l) A description of a turbulence reducing (green or environmental) valve to be incorporated with the overflow system;
 - (m) A description of all other relevant measures, systems, and training that will be implemented to manage adverse effects on the receiving environment during the operation of the dredge vessel; including measures relating to biofouling, management of waste, and refuelling.
 - (n) Details of the training for personnel involved in the operation of the dredge so that they may recognise any potential archaeological material including koiwi tangata or taonga, and to ensure compliance with the conditions of these consents;
 - (o) Procedures to be implemented to manage underwater dredging noise within the noise limits specified in these consents, including how any noise complaints are to be received and actioned; and
 - (s) Other relevant requirements specified in these conditions of consent (including other management plans); and
 - (p) A Contingency response plan and incident reporting.
194. The Maintenance DMP must be certified in writing by the Council prior to maintenance dredging first commencing, and the consent holder must undertake maintenance dredging in accordance with the certified Maintenance DMP (including any certified variation).
195. Any variation to the Maintenance DMP must be subject to certification by the Council.
196. The consent holder must provide the Maintenance DMP, and any variations to the Maintenance DMP, to Channel Infrastructure within ten (10) working days of the document's certification by the Council.
197. Appropriate navigation signals must be shown at all times during dredging activities.

SANDBANK RENOURISHMENT AREA GEOMORPHOLOGICAL MONITORING AND MAINTENANCE

198. The consent holder must commission inter-tidal and sub-tidal geomorphological surveys of the Sandbank Renourishment Area and the CMA within 200m of the Sandbank Renourishment Area.
199. The monitoring required by Condition 198 must be undertaken every two years for the first ten (10) years following the construction of the Sandbank Renourishment Area, and thereafter every five years.
200. Within three (3) months of each survey required by Conditions 198 and 199, the consent holder must provide to the Council for certification a report by a Suitably Qualified and Experienced coastal processes expert addressing the following:
 - (a) The geomorphological performance of the Sandbank Renourishment Area; and
 - (b) The efficacy of potential periodic renourishment “top-up(s)” through the deposition of additional sand/material, including a recommendation on whether such top-up(s) are necessary to achieve the purpose of the Sandbank Renourishment Area; and, if so, the proposed details for such top-up(s) or any changes to a current top-up(s) regime (including the location, volume, and frequency of proposed additional sand deposition).
201. Where a report certified under Condition 200 recommends Sandbank Renourishment Area top-up(s), top-up(s) to the initial Sandbank Renourishment Area must be undertaken in accordance with the latest certified report.

COASTAL PROCESSES: BATHYMETRIC AND SHORELINE MONITORING

202. The consent holder must commission an independent and Suitably Qualified and Experienced person to undertake sub-tidal, inter-tidal, and dry beach surveys of the following areas to monitor for potential long-term coastal geomorphological changes associated with the development authorised by these consents:
 - (a) Marsden Bay including the Marsden Cove Marina channel and Blacksmiths Creek channel; and
 - (b) The shoreline from Northport to Mair Bank (inclusive), including the Channel Infrastructure jetty area as described in Condition 108.
203. The detailed methodologies for the surveys required by Condition 202 are required to be set out in the EMMP (see EMMP conditions 135-159).
204. The monitoring required by Condition 202, and associated reporting, must be undertaken in accordance with the frequencies in the following table. Reporting must include:
 - (a) a comparison between the most recent surveys and surveys undertaken in previous project phases to identify any trends over time; and
 - (b) observations based on the results of the analysis, including in the context of ambient conditions such as wind speed and direction, water level variations, and any significant climate events; and
 - (c) any recommendations around proposed mitigation measures such as sand back-passing, beach nourishment, groynes and other structures.

Bathymetric and shoreline monitoring and reporting frequencies

Project Phase	Monitoring frequency	Reporting frequency
Within a one year period within 18 months prior to capital dredging commencing	Two surveys over the 12 month period	Nil
During dredging and in the first year post capital dredging	6 monthly (biannual) surveys	One report within six (6) months of the final survey completion
1-5 years post-completion of capital dredging	One survey annually	One report within six (6) months of the final survey completion

205. In the event that Condition 204(c) applies, and following certification by the Council that the recommendations will address the change in bathymetric and or shoreline profiles, the consent holder must implement the proposed remediation or mitigation measures to the satisfaction of the Council.

MARINE BIOSECURITY

206. At least three (3) months prior to the arrival of a dredge or reclamation vessel in New Zealand, the consent holder must submit a Biosecurity Management Plan(s) (BMP(s)) to the Council for certification.
207. The objective of the BMP(s) is to specify how the risk of a biosecurity incursion via introduction by Expansion Project construction vessels is to be primarily avoided, and to ensure effective treatment of all plant and equipment used in association with the works authorised by these consents to ensure that these do not become a vector for the spread of any unwanted or risk species. The BMP must include:
- (a) A description of the construction vessel(s) and its (their) attributes that affect biosecurity incursion risk, including key operational attributes (e.g. voyage speed, periods of time idle), maintenance history (including prior inspection and cleaning undertaken), and voyage history since last dry-docking and antifouling (e.g. countries visited and duration of stay);
 - (b) A description of the key sources of potential marine biosecurity risk from ballast water, sediments and biofouling. This must cover the hull, niche areas, and associated equipment, and consider both submerged and above-water surfaces;
 - (c) Findings from previous inspections, if available;
 - (d) If Northport is the first New Zealand destination since the latest hull cleaning, a description of the risk mitigation that has been or will be taken prior to arrival in New Zealand, including:
 - (i) Routine preventative treatment measures and their efficacy, including the age and condition of the antifouling coating, and marine growth prevention systems for sea chests and internal sea water systems;

- (ii) Any specific treatments for submerged and above-water surfaces that will be undertaken to address the Import Health Standards and CRMS requirements prior to departure for New Zealand. These could include, for example, in-water removal of biofouling, or above-water cleaning to remove sediment;
- (iii) Any additional risk mitigation planned during transit to New Zealand, including expected procedures for ballast water management;
- (iv) Expected desiccation period of above-water surfaces on arrival to New Zealand (i.e. period of air exposure since last dredging operations);

208. The BMP(s) must be prepared by a suitably experienced person.
209. The BMP(s) must be certified in writing by the Council's Compliance Manager prior to construction works authorised by these consents first commencing, and the consent holder must undertake all activities authorised by these consents in accordance with the certified BMP(s) (including any certified variation).
210. Any variation to the BMP(s) must be subject to certification by the Council.
211. Prior to dredging commencing, the consent holder must provide written certification from a Suitably Qualified and Experienced person to the Council to confirm that all plant and equipment entering the CMA associated with the exercise of these consents is free from unwanted or pest marine species.

OCCUPATION AND USE OF THE CMA FOR PORT CONSTRUCTION, OPERATION, AND MAINTENANCE

212. These consents authorise the consent holder to occupy, on an exclusive basis, and use for the purposes of these consents (including port construction, operation, and maintenance):
- (a) Those parts of the Whangārei Harbour being the proposed reclamation area (for the period such occupation is necessary); and
 - (b) Those parts of the Whangārei Harbour containing all approved port structures, including batter slopes, as shown on plan C03 contained in **Appendix 1**.
213. These consents authorise the consent holder to occupy, on a nonexclusive basis, and use for the purposes of these consents (including port operation and maintenance) an area generally within a line [60] metres seaward of all approved port structures and the proposed reclamation area, as shown on plan C03 contained in **Appendix 1**.
214. The Water Taxi Pontoon is to be completed within twelve (12) months of Practical Completion.
215. Notwithstanding Condition 214, the consent holder must allow for reasonable public recreational access on the Water Taxi Pontoon, except as required to ensure operational or public safety, or in an emergency response scenario.

Advice Note: *Public access to the Water Taxi Pontoon will be via the public Pocket Park.*

EARTHWORKS (TERRESTRIAL)

216. Before commencement of earthworks (terrestrial), final engineering plans must be prepared and provided to the Council and Whangārei District Council. The plans must include:

- (a) The finished interface between the spatial extent of the port and the adjoining esplanade reserve.
- (b) A demonstration of how public access has been facilitated to the residual beach area to the east.

STORMWATER DISCHARGES (OPERATIONAL)

217. The consent holder must submit a Stormwater Monitoring and Maintenance Plan (SMMP) for the proposed stormwater system prior to Practical Completion. The SMMP is to be prepared by a suitably qualified and experienced practitioner with experience in the design and implementation of stormwater quality management practices and procedures for industrial sites, and be in general accordance with the draft SMMP provided as part of the resource consent application (*Stormwater Operation and Maintenance Plan: Northport, Marsden Point*, SLR Consulting New Zealand, 7 February 2024).

The SMMP must include:

- (a) Measures to reduce the entrainment of contaminants into stormwater including, but not limited to, source control measures such as sweeping, vacuuming and/or covering potential contaminant sources.
- (b) Methods to remove, as far as practicable, coarse sediments and debris, suspended sediment, adsorbed contaminants, and dissolved contaminants.
- (c) Operational and maintenance details for:
 - (i) Pond and associated pumps;
 - (ii) Canals;
 - (iii) Spillways;
 - (iv) Removal of silt and any contaminants settled in spillways;
 - (v) Isolation and removal of any spills on the port apron before entering canals;
 - (vi) Repair of any erosion;
 - (vii) Removal of blockages;
 - (viii) Pond and canal sludge management; and
- (d) Sludge management details under 217(c)(viii) must include:
 - (i) The methodology for managing sludge build up in the stormwater basin so as to minimise the potential discharge of a contaminants to groundwater.

- (ii) The inspection regime and record keeping requirements for the canals and ponds;
 - (iii) Maintenance requirements and the sediment testing regime for TPH, copper, lead, zinc and aluminium.
 - (iv) The predicted frequency of desludging; and
 - (v) The likely disposal location(s), including any secondary approvals required if contaminant levels do not meet cleanfill guidelines and the disposal site is not to a consented disposal facility
218. Conditions 219 to 229 apply to all operational stormwater discharges from Northport from Practical Completion of the reclamation.
- Advice Note:** *It is intended that the consent holder will surrender the existing resource consent for the current stormwater collection, treatment, and disposal system (CON20090505532 issued on 13 April 2010) concurrently with the commencement of the application of conditions 219 to 229 in accordance with condition 28. This will consolidate the stormwater resource consents and conditions applying to the expanded Northport, meaning that a single consent and single set of conditions will apply to all Northport operational stormwater.*
219. Operational stormwater must be treated either:
- (a) Via connection to the existing canal and pond-based stormwater system discharging to the CMA at co-ordinate location 1733997E 6033711N; and/or
 - (b) Via alternative proprietary stormwater treatment systems/devices prior to discharge to the CMA, subject to prior certification by Council that they are capable of meeting the compliance parameters in these consent conditions.
220. The consent holder must make an underwater examination of diffuser(s) and pipelines at least once every two (2) years and take such measures as are necessary to ensure that diffuser(s) operate as designed and that all the stormwater discharges, except for the emergency overflow(s), pass through diffuser(s).
221. A report on all such examinations and action taken to remedy defects, as required under Condition 220, must be forwarded to the Council's Compliance Manager within once month of the examination being completed.

Attributable compliance parameters

222. Water within the Northport site stormwater network directly upstream of the confluence with discharges from the Marsden Maritime Holdings site (i.e. at the downstream limit of the Northport 525 mm gravity pipework), or prior to discharge from any proprietary system, must not exceed the following;
- (i) 70 µg/L Total Petroleum Hydrocarbons;
 - (ii) 10 µg/L of total copper;
 - (iii) 44 µg/L of total lead;

- (iv) 150 µg/L of total zinc; or
- (v) 100 mg/L of suspended solids.

Advice Note: The compliance parameters in condition 222 impose enforceable limits on Northport's "at source" stormwater discharges.

223. The compliance location specified in Condition 222 may be changed if the Council, following receipt of a report from the consent holder, certifies that a proposed alternative location is equally or more suitable for the purpose of measuring Northport's stormwater discharge quality.
224. The quality of stormwater discharged from the canal and pond-based stormwater system at the pumps must meet the following:
- (a) A pH within the range of 6.5 to 9.0;
 - (b) 1.86mg/L ammoniacal nitrogen;
 - (c) A total suspended solids median concentration not greater than 50 grams per cubic metre and a 95 percentile concentration not greater than 100 grams per cubic metre.
225. The operational port area must, as far as practicable, be maintained free of accumulation of wood debris and other organic product such that it is limited in its ability to be conveyed to the stormwater drains and cause objectionable odours beyond the site boundary.
226. The consent holder must undertake the following measures to minimise adverse effects associated with operational stormwater discharges:
- (a) Removal of bark and wood debris.
 - (b) Routine sweeping of the operational port area.
 - (c) Dust suppression measures.
 - (d) Regular cleaning of catchpits.
227. Sediment and sludge collected from the maintenance of the stormwater system, including internal drains and any debris traps, must be disposed of at a suitably authorised site or facility.

Monitoring

228. The consent holder must undertake stormwater monitoring in accordance with the monitoring programme at **Appendix 2** and the SMMP. Any changes to **Appendix 2** must be certified by the Council.

Advice Note: The monitoring programme at **Appendix 2** sets out monitoring and reporting requirements only. It does not include stormwater quality compliance parameters.

Changes in cargo

229. The consent holder shall notify the Council Monitoring Manager in writing of any proposed change(s) to the types of cargo handled through the Port Terminal from those detailed in the application, where they

have the potential to materially affect stormwater quality, at least one week prior to the proposed change(s) occurring, and shall, if required to do so by the Council Monitoring Manager, in writing, update the SMMP to reflect any additional monitoring that may be required.

Advice Note: *The current terminal activities are forestry products, containers, fertiliser, animal feed, and coal.*

PORT ACTIVITIES AIR DISCHARGES (OPERATIONAL)

230. Conditions 231 to 233 apply to all Northport port operations from Practical Completion of the reclamation.
231. At least three (3) months prior to the commencement of any Expansion Project Port Activities (excluding Expansion Project construction) an Air Quality Management Plan (AQMP) must be prepared and submitted to the Council for certification. The objective of the AQMP is to detail dust management procedures that will be implemented by the consent holder to minimise discharges of dust from port operations and to ensure that effects are in accordance with the assessments accompanying the resource consent applications. The plan must include guidelines to control dust associated with the handling of bulk material and stockpiles, including regarding the following:
- (a) Use of appropriate equipment when transferring material, such as hoppers.
 - (b) The use of covers.
 - (c) Limiting drop heights.
 - (d) Undertaking work in favourable wind conditions.
 - (e) Having a method available to apply water to dampen material when required and as appropriate.
 - (f) The regular sweeping of sealed surfaces.
 - (g) Restrictions on activities during strong winds.
 - (h) Limitations on the height of stockpiles.
 - (i) Installation of wind breaks.
 - (j) Minimising vehicle speeds to 20km/h on unsealed surfaces.
 - (k) Inclusion of procedures to minimise emissions.
232. The AQMP must be certified in writing by the Council prior to the commencement of port operations on the reclamation or wharf authorised by these consents, and the consent holder must undertake port operations in accordance with the certified AQMP (including any certified variation).
233. Any variation to the AQMP must be subject to certification by the Council. The consent holder is to review the AQMP at no greater than three yearly intervals.

CULTURAL

Co-Design Process

234. To provide an on-going opportunity for Māori knowledge and tikanga / mātauranga Māori to be included into the design of the expansion of Northport, with the intention of aligning, to the extent practicable, western science and engineering with kaupapa Māori research and core Māori values, the Consent Holder must, subject to the establishment of the Tangata Whenua Relationship Group (RG) in accordance with condition 236, invite the RG to nominate one or two uri, as determined by the RG, to participate in:

- a) The detailed design of the physical works authorised by these consents, including but not limited to:
 - i) Reclamations;
 - ii) Marine structures, including wharves, tug berthing facilities and water taxi pontoon;
 - iii) The Sandbank Renourishment Area;
 - iv) The Pocket Park;
 - v) Stormwater infrastructure;
 - vi) Dredging activities; and
 - vii) Earthworks, and
- b) the preparation of all management plans required by the conditions of these consents.

235. The Consent Holder must meet the actual and reasonable costs associated with giving effect to Condition 234.

Tangata Whenua Relationship Group

236. The Consent Holder must, not later than 6 months following commencement of these consents, provide a written offer to the relevant representative entities of tangata whenua groups of Poupouwhenua and Whangārei Te Rerenga Parāoa to establish and maintain a Tangata Whenua Relationship Group ('RG'), noting that:

- (a) For the purposes of these resource consents the 'relevant representative tangata whenua groups' are: Patuharakeke, Te Parawhau, and Ngātiwai;
- (b) The entities nominated to represent the tangata whenua groups listed in clause (a) of this condition must be identified by tangata whenua. Tangata whenua must advise both the Consent Holder and the council as to whom their representative entities will be;
- (c) The RG must be responsible for self-determination, including without limitation: the name by which it must be formally known, methods of decision-making, and rates of remuneration for members; and
- (d) Other tangata whenua groups may be invited to join the RG where they have been endorsed by the majority of the members of the RG.

Advice Note: *There are existing groups exercising various roles aimed at improving the health of Whangārei Te Rerenga Parāoa, including for example the “Kaitiaki Roopu” which was established under previous resource consents granted to Northport for its port expansion. The RG is distinct from the existing Kaitiaki Roopu.*

237. Each of the above parties listed in Condition 236 who accepts the Consent Holder’s offer may nominate one representative and an alternate representative to the RG. If invited in writing by the RG, the Consent Holder may also nominate one representative and an alternative representative to the RG.

Functions of the RG

238. The functions of the RG are to:
- (a) Recognise and provide for the kaitiakitanga of Māori who have a kaitiaki relationship with Poupouwhenua and Whangārei Te Rerenga Parāoa, within the framework of these resource consents;
 - (b) Facilitate the involvement of Māori who have a kaitiaki relationship with Poupouwhenua and Whangārei Te Rerenga Parāoa in the exercise of these resource consents;
 - (c) Provide a forum for Māori who have a kaitiaki relationship with Poupouwhenua and Whangārei Te Rerenga Parāoa, to engage with the Consent Holder and the council regarding the exercise of these resource consents; and
 - (d) Promote the aspirations of its people, including:
 - i) Environmental restoration and/or betterment;
 - ii) Whānau health;
 - iii) Educational opportunities for tangata whenua;
 - iv) Cultural well-being; and
 - v) Economic and social well-being for tangata whenua.

Roles of the RG

239. The roles of the RG are to:
- (a) Identify initiatives to develop expertise and capacity building for mana whenua. These could include, for example, establishing educational scholarships, providing post-graduation research funding, identifying opportunities for professional training (e.g. Directors Institute course), apprenticeships, and/or port operator training (e.g. forklift licence), and/or proposing suitable candidates for employment opportunities.
 - (b) Nominate people with knowledge of mātauranga Māori to train as marine mammal observers;
 - (c) Nominate people with knowledge of mātauranga Māori to train as field technicians for collection of samples of water/substrate/shellfish as required by these consents or more generally for Northport’s operations;

- (d) Receive draft reports and information from the Consent Holder required pursuant to these resource consents, including but not limited to notification of any discovery of archaeological material;
- (e) Review and comment, as necessary, on the following (amongst other things): the draft CEMP; the draft EMMP; the draft MMMP; and the draft Capital DMP and draft Maintenance DMP;
- (f) Review and comment, as necessary, on the draft monitoring reports produced by the Consent Holder prior to them being submitted to the council to ensure the RG views are made known to council prior to any review;
- (g) Work collaboratively with the council and the Consent Holder to determine and implement appropriate procedures to control any adventive pests and weeds present within any disturbed area;
- (h) Take an active role in reviewing and reporting using the Cultural Indicators Hub ('CIH') as the primary reporting tool as defined in condition 240 below;
- (i) Receive from the Consent Holder notification of any receiving water quality limit exceedances; and consult with the council's Compliance Manager regarding any receiving water quality limit exceedances;
- (j) Provide advice on enhancing access to mahinga kai sites;
- (k) Receive requests from Māori who have a kaitiaki relationship with Whangārei Te Rerenga Parāoa for the undertaking of any cultural ceremonies relating to the exercise of these resource consents, including without limitation in the event of discovery of kōiwi; and for facilitating the provision of any such cultural ceremonies the RG reasonably deems to be appropriate; and
- (l) Identify, develop, establish and/or approve suitable studies or projects designed to improve water quality, coastal processes, environmental, ecological, and cultural health of the Whangārei Harbour entrance (including its shores) and northern Bream Bay.

Consent Holder's obligations

240. The Consent Holder's obligations in respect of the RG must be limited to:

- (a) Where requested by the RG, to provide a venue and/or Secretariat for RG meetings;
- (b) Explore and discuss with the RG opportunities to engage persons nominated by the RG to undertake roles as marine mammal observers and/or field technicians for collection of samples of water/substrate/shellfish as required by these consents or more generally for Northport's operations;
- (c) Identify external business opportunities for mana whenua where they arise, including in associated or ancillary businesses. Examples might be providing services to cruise ship operators and/or passengers; or preferential purchase of specimen plants for landscaping requirements;
- (d) Provide copies of the relevant draft management plans, reports and documentation required

by the conditions of this resource consent to the RG;

- (e) Consider and, if requested by the RG, provide a written or other agreed appropriate response to recommendations made by the RG, to the extent detailed in these conditions or otherwise agreed by the RG;
- (f) To make available any staff members or independent experts engaged by the Consent Holder to appear before the RG, with the costs of the experts' attendances and any necessary preparation to be met by the Consent Holder;
- (g) Subject to any operational or health and safety constraints, provide a reasonable opportunity for mana whenua to walk the Expansion Project Site before works commence to observe, categorise and discharge their obligations as kaitiaki;
- (h) Be involved in the development, implementation and monitoring of cultural indicators as contemplated by condition 249 below; and
- (i) Provide monthly email updates to the RG during construction works to advise of:
 - (i) Key progress milestones,
 - (ii) The outcomes of monitoring conducted in accordance with these resource consents, and
 - (iii) Any exceedances of relevant conditions of these resource consents.

RG Funding

241. In order for the RG to fulfil its functions and roles, as set out in conditions 238 and 239, the Consent Holder must fund the RG as follows:
- (a) Not later than 30 working days following the commencement of these consents the Consent Holder must pay to a suitable bank account nominated by the RG:
 - i. \$25,000.00 for the establishment of the RG, and
 - ii. \$25,000.00 for administration.
242. Thereafter, on the anniversary of the payments in condition 241 above, the Consent Holder must, for the duration of these consents, pay to the RG \$25,000.00 per annum for administration costs, providing the RG is established and operational. Subsequent annual administration payments are to be Index-Linked.
243. In addition to the payments required by conditions 241 and 242, upon the commencement of reclamation works, the Consent Holder must, for the duration of these consents, make available to the RG an amount of \$75,000.00 per annum for studies or projects that are demonstrated by the RG to be consistent with Condition 239(l). The Consent Holder will transfer to the RG funding for particular projects within 30 working days of receipt of a qualifying application. This funding is not Index-Linked, represents a maximum amount per annum, and does not compound if/when unused.

General

244. The Consent Holder must provide written confirmation to the council's Compliance Manager within two weeks of receiving acceptance of offers to participate in the RG pursuant to Condition 238.
245. The first RG meeting must be held as soon as practicable following establishment of the RG. The RG must determine how it conducts/administers its functions under these resource consents.
246. The Consent Holder must provide written verification to the Council and Whangarei District Council of all payments made in accordance with Conditions 240-242 within five working days of each payment being made.
247. Except where expressly provided in Condition 249(a), or where the context requires otherwise, all of the Consent Holder's obligations with respect to the RG under these resource consents are conditional on the RG being established in accordance with these conditions.

Cultural Monitoring Framework

Cultural Indicators Hub ('CIH') – overview

248. For the purposes of these conditions, the CIH is an online monitoring and reporting platform that:
- (a) Facilitates the visualisation of monitoring data and other information recorded by the consent holder during construction and operation of the expanded container port, as authorised by these consents;
 - (b) Demonstrates the performance of the expanded container port against any cultural indicators developed and implemented by mana whenua, incorporating mātauranga Māori as appropriate, and as further described in condition 249 below;
 - (c) Can be used as a tool for mana whenua to support the exercise of its kaitiakitanga; with authorised independent access to the online platform;
 - (d) Can be used to inform recommended changes to any management plans, including those specified in condition 239(e), as part of any annual update, or as part of any more comprehensive review; and
 - (e) Subject to restrictions requested by mana whenua, is otherwise publicly visible thereby providing real time information on the performance of the construction and operation of the expanded container port when measured against the conditions of consent.

Development of cultural indicators

249. The consent holder must, as early as possible but no less than 6 months prior to the date of the commencement of works authorised by these consents, invite the RG to develop cultural indicators that assess the effects of the dredging, reclamation and construction works authorised by these resource consents on Poupouwhenua and Whangārei Te Rerenga Parāoa. The cultural indicators are to be incorporated into the CIH described in Condition 248, provided that:
- (a) If the cultural indicators are not developed by the RG prior to the commencement of works

authorised by these consents, the CIH must be constructed in a manner that allows the cultural indicators to be added at a later date, and until that time the CIH must be operated and display other key information as described in condition 248 above;

- (b) The RG may review and amend the cultural indicators from time to time and the consent holder must update the CIH to incorporate any such amendments as soon as practicable following any new or amended cultural indicators.

Cultural Monitoring Framework - obligations

250. The Consent Holder must ensure all monitoring data as required by these consents and agreed by RG is visualised on the CIH.
251. The methodology of the cultural monitoring and assessment must be determined following consultation with the RG. Any assessments must be carried out by persons with knowledge of mātauranga Māori appointed by the RG, or by Suitably Qualified and Experienced person(s) appointed by the consent holder on the recommendation of the RG.
252. The cultural indicators referred to in condition 249 may include, but are not limited to, assessing changes in water quality, the health of taonga species and culturally significant flora and/or fauna, and the health of Poupuwhenua and/or Whangārei Te Rerenga Parāoa.
253. The addition to the CIH, the RG must be able to nominate an appropriate person(s) to undertake and provide a written report on the cultural indicators monitoring on an annual basis during construction of the Expansion Project. The written report will be submitted to Council on an annual basis, for their information.

Advice Note: Reasonable actual costs associated with commissioning external person(s) to establish and implement cultural indicators will be the responsibility of the consent holder, rather than the RG.

Advice Note: Nothing in these conditions 236-253 compels the consent holder to engage any person(s) for the delivery of monitoring.

Port noise (operational)

254. The Consent Holder must manage operational port noise in accordance with WDC Conditions 18-29. [insert WDC consent reference].

Advice Note: The Port Noise Standard (NZS 6809:1999 Acoustics – Port Noise Management and Land Use Planning) encapsulated in the WDC conditions applies cumulatively for port activities on land and in the CMA.

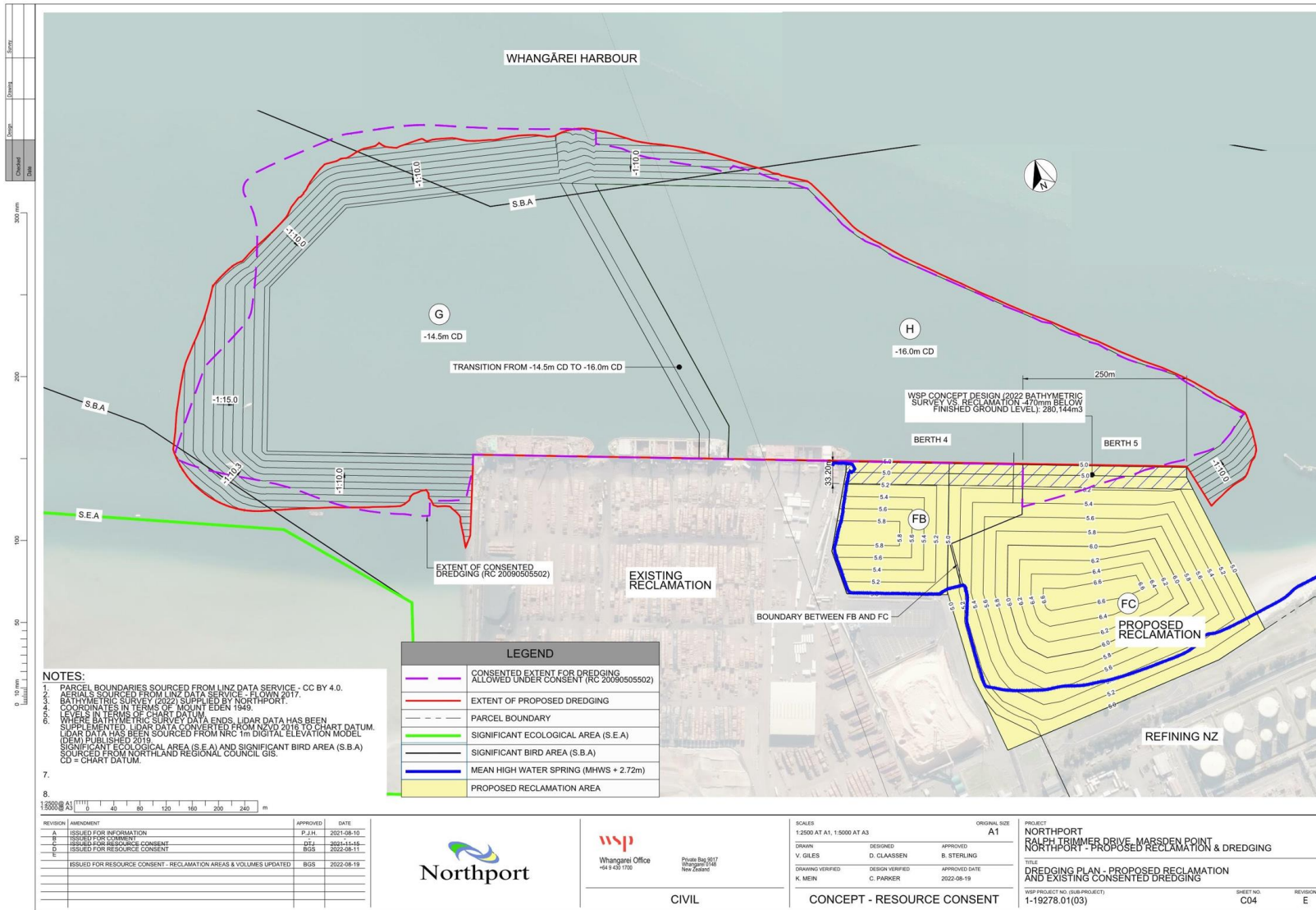
EXPIRY DATES: UNLIMITED

[INSERT DATE 35 YR FROM COMMENCEMENT]

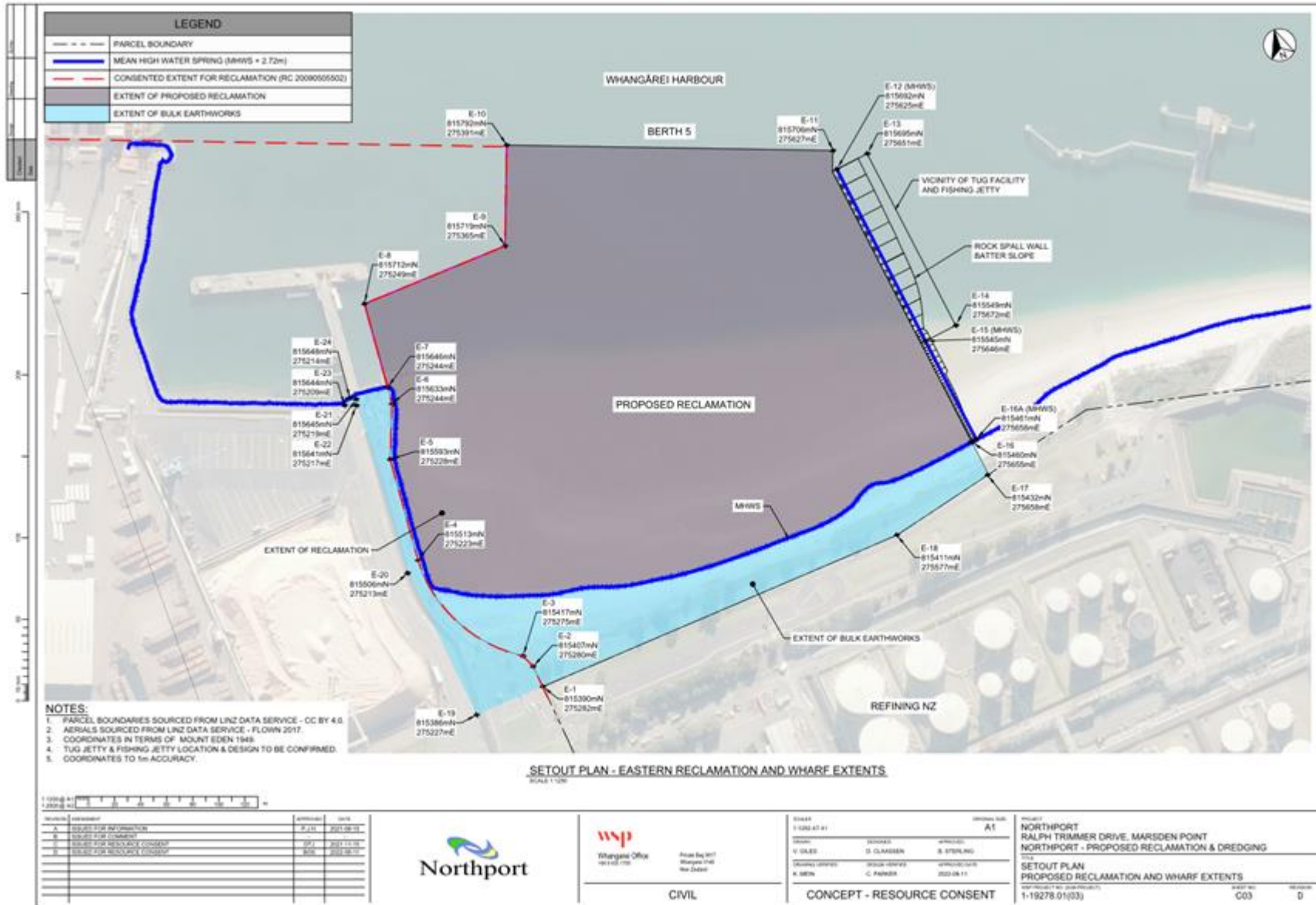
AUT[XXXXX] (Reclamation)

All other consents

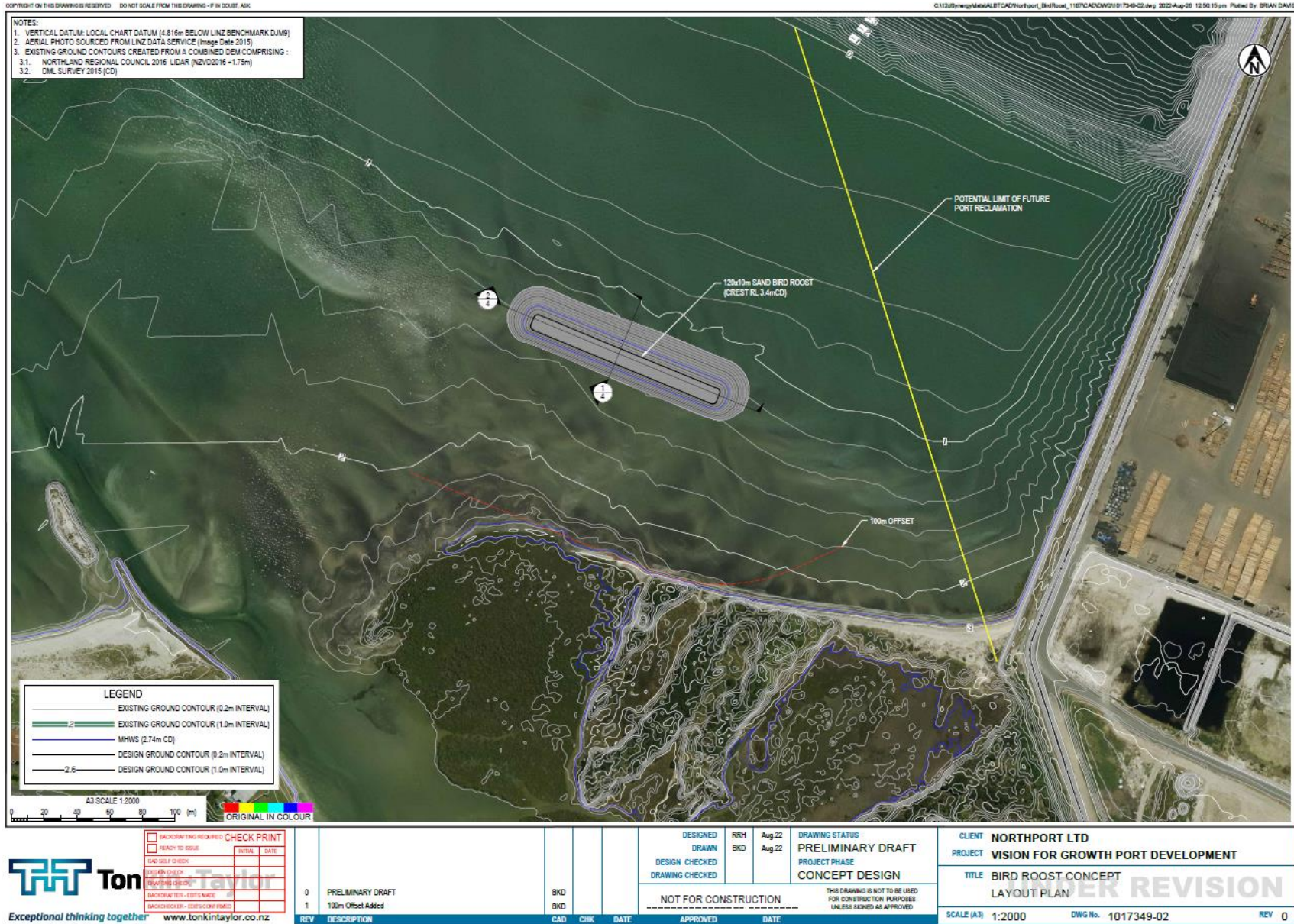
APPENDIX 1: PLANS

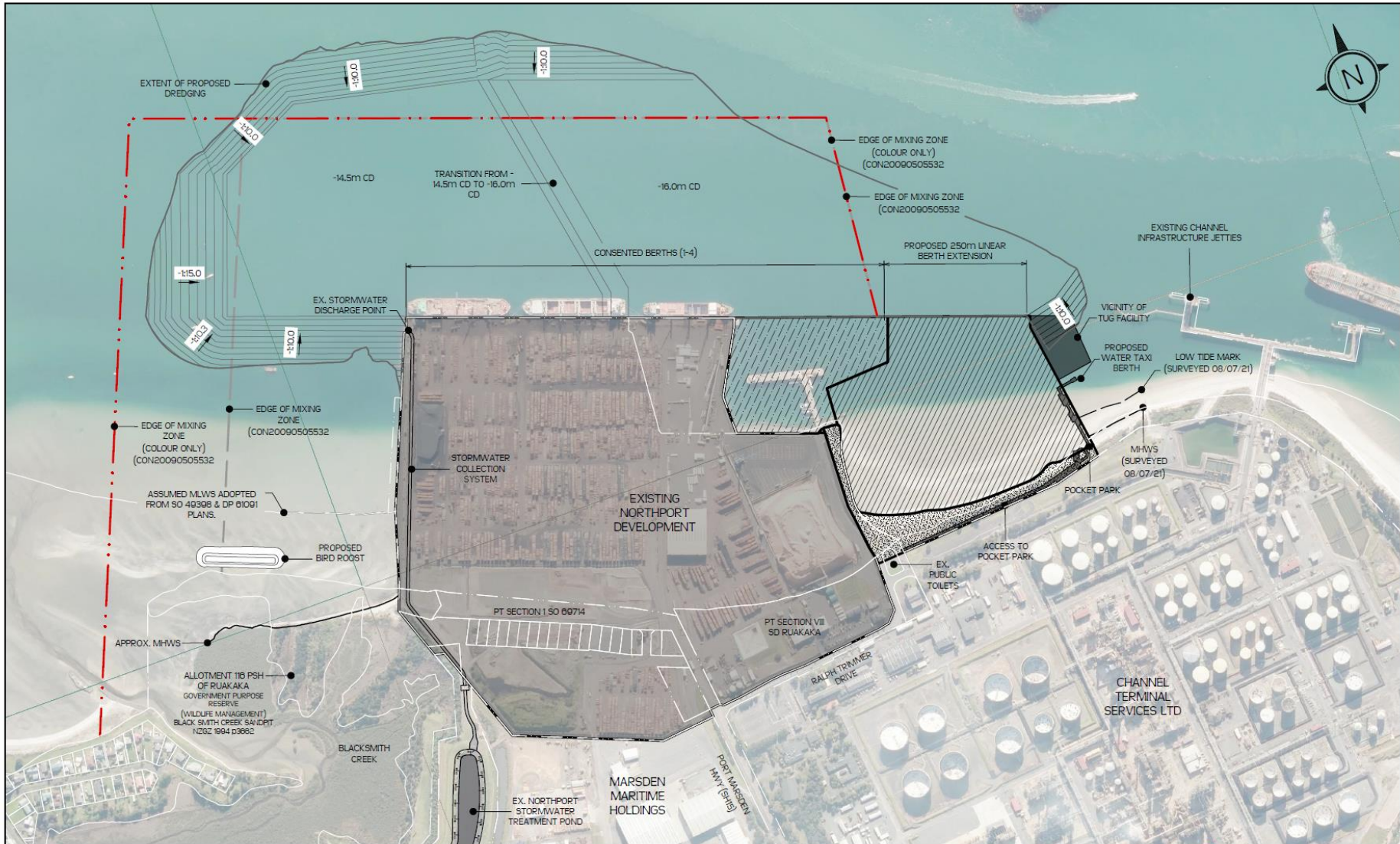


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TITLE		CLIENT	
NORTHPORT EXPANSION (BERTH 5)		NORTHPORT MARSDEN POINT	
DATE	SCALE	REV. DATE	REV. DATE
JULY 2023	1:6000 @A3	06.07.23	
NO.	SHEET	REV.	DESCRIPTION
014656	1/1	A	FIRST ISSUE - BH/TM

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KEY:	
	PARCEL BOUNDARY
	CONSENTED DEVELOPMENT (NOT YET CONSTRUCTED)
	PROPOSED RECLAMATION
	EXTENT OF BULK EARTHWORKS
	EXISTING NORTHPORT DEVELOPMENT

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ORIGINAL IN COLOUR
Boffa Miskell

REV	DATE	DESCRIPTION
A	20.02.22	FOR INFORMATION
B	25.07.22	FOR INFORMATION

APPROVED
NORTHPORT
RECLAMATION
PROPOSED CONCEPT PLAN

Design	SCG	Scale	Date
Drawn	CRS	1:750 @ A1	20.07.22
Check	SCG	1:1500 @ A3	
FOR INFORMATION			
DRAWING NO.	REVISION		
BM220519-201	(B)		

APPENDIX 2: OPERATIONAL STORMWATER MONITORING PROGRAMME

The consent holder must undertake the monitoring as follows:

1. WATER QUALITY OF DISCHARGES FROM THE STORMWATER SETTLEMENT AND STORAGE POND SYSTEM, AND ANY PROPRIETARY SYSTEM(S)/DEVICES

1.1 Routine Water Monitoring for Discharges to Whangarei Harbour

The stormwater system(s) and discharges must be monitored in accordance with **Table 1** below.

If any of the following determinands in the stormwater being discharged to the coastal marine area exceed the Action Values specified in **Table A**, the consent holder will notify the Council within two weeks of receiving the sample result and investigate the source of the contaminant and advise the Council as to the findings of the investigation and any management response.

Table A

Determinands	Action values: Concentration in milligrams per cubic metre
Total Aluminium	5
Total copper	13
Total lead	44
Total zinc	150
PAHs	
– Acenaphthene	58
– Anthracene	0.1
– Benzo(α)anthracene	0.18
– Benzo(α)pyrene	0.1
– Floranthene	10
– Fluorene	30
– Napthalene	500
– Phenanthrene	6
– Pyrene	0.25

Note: ANZECC for PAH, 99% protection level as recommended in Section 8.3.7.7 and also CEQG (Canadian aquatic guidelines). For aluminium, ANZECC 8.3.7 Marine guidelines recommend 0.5 mg/m as an indicative low reliability figure.

Values in **Table A** are intended to act as an early warning to identify if concentrations are increasing relative to previously documented monitoring values/trends and warrant investigation notwithstanding that they may be well below levels of environmental concern taking into account mixing and dilution.

TABLE 1: SCHEMATIC MONITORING DIAGRAM –

Location	Sampling Frequency	Parameters	Notes
Point(s) of discharge	First discharge per season, and two other discharge events each year		Advise Council when ponds reach design discharge level for the first time each year prior to discharge occurring
	One sample per day (operational hours) until discharge has ceased. First sample to be taken as close as possible to when discharge first occurs	TSS, VSS, NTU/FTU and pH	T and DO are considered not useful in this situation
	Taken with first sample from first discharge event only	Al, Cu, Pb, Zn, PAH, and resin acids. Total N and Total P to be included if fertiliser products have been stored on site in the previous season	Resin acids, Total N and P concentrations will be assessed against available literature and previous concentrations to determine potential for adverse effects. All parameters to be assessed for any increasing trends over time. If the resin acid results for the first discharge of the season are below any applicable ANZECC effect threshold after theoretical mixing, resin acids need not be further analysed in that season
Pond Influent	To be done with "First discharge per season" referred to above	T, pH, DO, TSS, Cu, Pb, Zn, resin acids, phenols, PAH, VSS	Test to be used as an indication of pond effectiveness under different conditions eg size of storm, contributing area
Stormwater Canals, western/eastern arms	One off	<u>Sediment samples:</u>	Samples to be taken at: Join of arms, 100m upstream on eastern arm, 100m upstream on western arm
		Cu, Pb, Zn, PAH	Test to be used to determine any disposal issues for sediment
		<u>Water:</u> Winter months (when ponding in canals following rainfall)	Both sediment and water samples to be representative based on 3 sub-samples from different points of each arm composited for analytical purposes

		pH, Cu, Pb, Zn, resin acids, phenols, PAH	
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1.2 Pumping Hours

The consent holder must measure the pumping hours, the date, the time, and the quantity of water when discharge to Whangarei Harbour occurs from canal and pond-based stormwater system.

Advice Note: *The size of the canal and pond-based stormwater discharge pipe and the proposed capacity of the pumps limit the pumped discharge rate to approximately 2,520 cubic meters per hour.*

2 REPORTING

2.1 The consent holder must forward to the Council's Compliance Manager by 31 August each year an annual report for the previous period 1 July to 30 June detailing the results of the monitoring required by Section 1 of this monitoring programme and an assessment of compliance with the conditions of consent.

3 FIELD MEASUREMENTS, RECORDS, SAMPLE COLLECTION, SAMPLE TRANSPORT, DETECTION LIMITS, AND LABORATORY REQUIREMENTS

3.1 Records

A record of rainfall conditions preceding and during sampling must be kept. This record must be based on a nearby rainfall recording site agreed by the Council.

3.2 Sample Collection

All samples collected as part of this monitoring programme must be collected using standard methods and approved containers.

3.3 Sample Transport

All samples collected as part of this monitoring programme must be transported in accordance with standard procedures and under chain of custody to the laboratory.

3.4 Detection Limits

The detection limits for the analysis of metals in sediment and water samples collected must be equivalent to, or better than, those specified below:

Metal	Sediment samples (milligrams per kilogram)	Water samples (milligrams per cubic meter)
total copper	2	1.0
total lead	0.4	0.2
total zinc	4	2.0
total arsenic	2	N/A
total cadmium	0.1	N/A
total chromium	2	N/A

3.5 Laboratory Requirements

All samples collected as part of this monitoring programme must be analysed at a laboratory with registered quality assurance procedures (see definition below), and all analyses must be conducted using standard methods.

Registered quality assurance procedures are procedures that ensure that the laboratory meets good management practices and would include registrations such as ISO 9000, ISO Guide 25, and Ministry of Health Accreditation.

APPENDIX 3: ENVIRONMETRICS REPORT

APPENDIX 4: MANGANESE POINT LINE PLAN

APPENDIX 5: UNDERWATER NOISE MEASUREMENT PLAN