

**BEFORE THE WHANGAREI DISTRICT COUNCIL AND NORTHLAND REGIONAL COUNCIL**

**IN THE MATTER** of the Resource Management Act 1991

**AND**

**IN THE MATTER** of a resource consent application by Northport Limited under section 88 of the Resource Management 1991 for a port expansion project at Marsden Point

**APPLICATION NO.** APP.005055.38.01 and  
LU 2200107

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**REBUTTAL EVIDENCE OF JARED KARL PETERSSON**

**(ENVIRONMENTAL MANAGEMENT)**

**3 October 2023**

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**Solicitors acting:**  
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## **INTRODUCTION**

1. My name is Jared Karl Petterson.
2. I prepared a statement of evidence dated 24 August 2023 ("primary evidence") on behalf of Northport Limited in respect of the proposed development of the Northport facility at Whangārei.
3. My qualifications and experience as a planning expert are set out at paragraphs 2-7 of my primary evidence.
4. I repeat the confirmation given at paragraph 9 of my primary evidence that I have read the Code of Conduct for Expert Witnesses and agree to comply with it.
5. This statement of rebuttal evidence is in response to both Ms Helen McConnell's memorandum to Blair Masefield dated 21 September 2023, a copy of which was provided to me; and Turbidity Management discussions held with Doug Trelour and Blair Masefield on 2 October 2023.

## **MS HELEN MCCONNELL'S MEMORANDUM**

6. Ms McConnell's memo conveys her view of the proposed conditions as they relate to marine mammals and was provided to Northport by Council in lieu of expert conferencing on marine mammals.
7. I have responded to the section of Ms McConnell's memo that relate to the management of underwater noise effects on marine mammals and the Marine Mammal Management Plan.

## **Points of agreement**

8. I agree with Ms McConnell that Condition 62 would benefit from the suggested additional detail, specifically:
  - (a) A clause setting out when the EMMOZ is to be instituted,
  - (b) A description of the pre-start observation zone, and
  - (c) Setting out the duration of the daily pre-start observations.

9. I can also confirm the pre-start observation zone will include the area up to the line between One Tree Point and Manganese Point. I understand that Mr Brett Hood has updated this condition accordingly in the set of conditions to be attached to his rebuttal evidence.
10. Ms McConnell also made three suggestions for adjustments to Condition 93, which sets out the content for the MMP. The suggested changes are to include:
  - (a) A scheduling component for the underwater noise monitoring,
  - (b) The training and experience requirements for the Marine Mammal Observers, and
  - (c) The frequency of inspection/maintenance of marine construction equipment.
11. I generally agree with these changes. I understand Mr Brett Hood will present an updated set of draft conditions in his rebuttal evidence which will substantively incorporate these suggestions - although I note that for reasons of clarity, Mr Brett Hood may choose to add additional parts to Condition 93 rather than alter the existing sub-parts. I agree with either approach.

### **Points of disagreement**

12. Ms McConnell further comments that Condition 65 should be expanded to require piling to cease if a baleen whale is present anywhere west of the line between One Tree Point and Manganese Point. This would include the entire upper Whangarei Harbour which extends more than 9km to the west of the One Tree Point/Manganese Point line. I have discussed this with Dr Deanna Clement and, following that discussion, I disagree this additional management measure is warranted. Piling should be able to recommence once baleen whales (or leopard seals) are west of the One Tree Point/Manganese Point Line. Once past this line, baleen whales would not experience behavioural effects and would be largely outside the audibility zone of the piling.
13. I also disagree with Ms McConnell's suggestion that piling should cease whilst any marine mammal (aside from fur seals) is in the part of the harbour between the MMOZ and the One Tree Point/Manganese Point line. Based on my discussions with Dr Deanna Clement, and consistent with the position as expressed in Dr Clement's rebuttal evidence, this additional level of control is not needed for any other species aside from baleen whales and leopard seals. Killer whales and dolphins are the most likely other

species to be found in the harbour and these mammals would not be exposed to permanent or temporary injury risks in this part of the harbour. The MMMP seeks to manage these temporary (and permanent) injury effects but does not seek to manage behavioural responses. I note that to get to this part of the harbour, these mammals would have transited past the piling activity, which would have been operating unless the mammals were within 200m of the piling activity.

14. I understand Dr Deanna Clemment has discussed this issue with Ms McConnell and they have resolved to retain Northport's proposed conditions with an additional requirement to evaluate if the piling is preventing these mammals from exiting the harbour. Dr Deanna Clement describes this in her rebuttal evidence. I agree with this measure and support an update to the MMMP and the conditions to require an evaluation of dolphin/orca behaviour when heading eastward towards the piling activity from the upper harbour. I have therefore suggested a suitable condition, which Mr Brett Hood has included in his updated set of conditions.
15. Ms McConnell sought clarification on how the sound compliance limits were established in Condition 69. In preparing my primary evidence, I discussed the underwater noise modelling that underpinned the predicted Temporary Threshold Shifts (TTS) distances with Dr Matt Pine. To verify the model during piling activities, underwater noise monitoring combined with a compliance metric is proposed. The monitoring location was selected to allow for the deployment of an instrument over 24 hours whilst not creating a navigation hazard. The proposed 24-hour cumulative Sound Exposure level (SELcum(24h) of 180dB re 1µPa2s reflects the model predicted received piling noise at the monitoring location and is purely a model verification metric. If the monitoring verifies the model predicted sound level (and the assumptions made in the modelling) the predicted TTS boundaries and MMOZ will also be appropriate. A 10db penalty was proposed if piling was to continue into a second season.
16. For clarity, I remain of the view that the approach to measuring underwater noise, and the conditions to manage underwater noise effects proposed by Northport, remain appropriate.

## **TURBIDITY MANAGEMENT DISCUSSIONS**

17. I met with Doug Trelour and Blair Masefield (2 October 2023) to discuss the turbidity management framework and turbidity monitoring. The discussions were useful but did

not raise issues that caused me to change any of the opinions set out in my primary evidence.

18. For completeness, and as it was an issue clarified in my discussion with Mr Trelour and Mr Masefield, I note that the EMMP provided as part of the application is a draft and that the suggested monitoring locations in the draft EMMP could change prior to the EMMP being finalised.

**Jared Pettersson**  
Enviser Ltd

3 October 2023