Before the Far North District Council and Northland Regional Council

In the Matter	of the Resource Management Act 1991
And	
In the Matter	of an application for regional and district resource consents to extend the hardstand area immediately adjoining the southern extremities of Bay of Islands Boatyard, Opua (legally described as Lot 1 DP 199153) and associated works
Applicant	Far North Holdings Limited FNDC RC2200220

Evidence of Peter Alexander Ibbotson on behalf of Far North Holdings Limited

(Acoustics)

20 November 2020

Introduction

- 1. My name is Peter Alexander Ibbotson. I am an acoustic consultant at Marshall Day Acoustics. I hold a Bachelor of Mechanical Engineering with Honours from the University of Auckland. I am a member of the Acoustical Society of New Zealand (MASNZ).
- 2. I have been engaged in the field of acoustics for 19 years. I have previously held positions as an acoustic engineer with Ron Rumble Pty Ltd (Australia) and Powell Fenwick Ltd (New Zealand). I have been employed with Marshall Day Acoustics for the past 15 years. I am a shareholder of the company with responsibility for our Northland operations. Marshall Day Acoustics is a leading international acoustical consultancy with offices in New Zealand, Australia, China, Hong Kong and France.
- 3. I have been involved in many environmental sound assessment projects in New Zealand, Australia and the South Pacific. I have appeared as expert and presented expert evidence at council resource consent hearings and Environment Court hearings. I have also appeared to give acoustic evidence in the Supreme Court of Samoa. I have previous experience in the assessment of noise from similar industrial activities, such as boatyards, ports, operation of vessels, metal repair and fabrication, etc.

Expert Witness Code of Conduct

4. Although not before the Court, I note that I have read the Code of Conduct for Expert Witnesses contained in the Environment Court's 2014 Practice Note. This evidence is within my area of expertise, except where I state that I am relying upon the specified evidence of another person. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express. I am committed to my duty to act as an independent expert and to provide all relevant information to the hearings panel to enable an appropriate and informed decision to be made.

Involvement in the Project

- 5. Our noise assessment report was prepared by my colleague, Mary Hamilton. I oversaw this assessment, carried out site investigations and provided internal review.
- 6. I personally visited the site on 11 May 2019. I have since visited the site again on 12 November 2020.

The Proposal

 It is proposed to extend the maritime servicing area to the south over an area of approximately 2500 square metres. Facilities to be added include: a boat ramp, loading dock, barge dock, dock, and a berth for The Minerva Kerikeri Steamship Trust. The project would also include extension of the access road and realignment of a 300-metre section of the Pou Herenga Tai -Twin Coast Cycle Trail.

- 8. I understand that the main use of the site is as a staging point for marine construction barges and as a loading facility for marine farming operation. The two key issues we considered and addressed in our noise assessment report were operational and construction noise. Underwater noise (due to construction piling activity) was also addressed as a subset of construction noise.
- 9. The main parts of the application that are relevant to noise are as follows:

Construction

10. The main noise generating construction activity will be piling. Impact sheet piling for the reclamation wall will occur over a distance of 90 metres. Twenty-six steel piles will be impact driven to resistance in the loading dock / barge dock / dock area. An additional twenty-two timber piles associated with the jetty and an additional four steel piles associated with the steamship berth will also be impact driven.

Operation

- 11. The **existing** boatyard involves water blasting (using commercial and domestic grade machinery), sand/garnet blasting, the use of a travel lift machine, general maintenance (involving the use of hand-held power tools such as grinders, sanders and drills), tractor use, and general traffic. I understand that water / sand blasting takes place in defined locations whereas the other activities take place throughout the yard.
- 12. Activities within the **proposed** extension / maritime servicing area would include: use of a Hiab crane, forklift, tractor, general traffic including launching of boats at the boat ramp, and handheld power tools. I understand that the bulk of these activities would be associated with the farming and harvest of oysters or associated with marine construction. In general, the proposed maritime servicing area is not proposed to involve the noisier activities that currently occur on the existing boatyard. Water blasting, sandblasting, painting and travel lift activities will continue to occur in the existing area of the boatyard while the main use of the proposed maritime servicing area will be for less noisy activities typically associated with the deployment and docking of vessels.

Receivers

13. Residential dwellings are located to the west of the project on Kennedy Street, Scoresby Street, and Lyon Street. Two dwellings (10 and 12 Scoresby Street) appear to have line-of-sight to the existing boat yard but not to the proposed extension. Two dwellings (10 and 12 Kennedy Street)

are likely to have line-of-sight due to the proposed extension (but currently experience limited line-of-sight to the existing boatyard)¹.

- 14. In our report we identified six dwellings within 37 to 140 metres of the operation. I consider that if noise levels are acceptable at these dwellings then effects will be acceptable at all dwellings. The dwellings used in our assessment are:
 - (a) 2, 4, 10 and 12 Kennedy Street
 - (b) 12 and 14 Scoresby Street.
- 15. Bay of Islands Planning have provided me with a summary of submissions (and full copies of detailed submissions). My understanding is that of the six receivers we primarily considered in our report, only 12 and 14 Scoresby Street have lodged submissions. Other submissions have been received from dwellings located elsewhere in Opua (and elsewhere in the Far North).
- 16. For reference, I have included the project site and surrounds figure from our report below:



¹ Note that the topographical data used in our model likely underestimates the level of acoustic screening provided by the existing headland, especially for receivers at the south end of Kennedy Street. The model therefore gives conservatively high noise levels at 10 and 12 Kennedy Street due to use of the water blaster and sandblaster on the existing boatyard.

17. A range of commercial and industrial activities are located in Opua and several are located on the same site as the boatyard. These businesses generally provide marine services and I do not consider them to be sensitive to noise from marine services activity². In any event, these commercial activities are located well away from the proposed marine services are and are unlikely to receive a significant **change** in noise emission as a result of the proposed marine services area.

Ambient Noise Environment

- 18. During my initial visit (11 May 2019) I carried out measurements of existing ambient noise in the area at two locations. These positions are set out in our report and are summarised as follows:
 - (a) MP1: On Baffin Street, adjacent to the existing boat yard, representative of the lower boundary of 7 Lyon Street.
 - (b) **MP2:** on the cycle trail, around 100m from the existing boatyard, broadly representative of 10 and 12 Kennedy Street.
- 19. During my initial site visit I noted that activity in the existing boatyard was not the dominant source of noise. Noise levels were relatively low overall, with occasional noise from activity around boats on the hardstand being audible at Baffin Street (MP1)³. Boats, birds and other sea noises were audible on the cycle trail (MP2) together with occasional distant noises from the boat yard⁴.
- 20. On my more recent visit (12 November 2020) I observed more activity in the boatyard. This included a short period of water blasting. Noise was occasionally audible from owners painting their boats and conducting general maintenance. Extractor fans were also operating at the painting room at the south-eastern end of the boatyard. On this occasion I did not measure noise at Baffin Street adjacent to the boatyard, rather I measured noise on the cycle trail (at MP2) and in the Kennedy Street/ Scoresby Street neighbourhood at the top of the cliff.
- 21. None of the "boat yard works" activities were clearly audible at the cycle trail (MP2) or at the top of Kennedy Street, however noise from the paint room extractor was clearly audible at MP2 (I measured noise levels of 46 dB L_{Aeq})⁵.

² These receivers are likely to generally relate *positively* to noise from the marine servicing area (given that their business relies on marine activity) provided noise levels are not so high that they regularly interfere with their own business tasks (e.g. administration , sales).

³ Daytime noise levels at Baffin Street were measured at 42 dB L_{A10} and 29 dB L_{A90} . This is a relatively low level of noise for a relatively urban / suburban area reflecting the fact that noise was measured on Saturday and that there is little road traffic noise audible in the area.

⁴ Daytime noise levels on the cycle trail were similar to Baffin Street: noise levels of 40 dB L_{A10} and 27 dB L_{A90}.

⁵ The fan and ducting is unlagged and in relatively poor condition. It is likely that the fan has a two-pole motor and has a relatively high sound power level as a result.

22. My overall impression of the environment around the subject site, is that activity at the existing boat yard (and adjacent industries such as Bluefix) contribute industrial noise to (and are part of) the acoustic character of the area.

Zoning and Noise / Vibration Criteria

Noise

- 23. The application site is situated on land zoned *Industrial* and *Coastal Marine* in the Operative Far North District Plan (District Plan). Most properties adjacent to the proposed development are zoned *Coastal Residential*. Other properties zoned *Commercial* are located on the west side of Baffin Street.
- 24. The permitted activity noise standards for the *Industrial zone* must comply with the following noise limits when measured *at any point within any site in the Coastal Residential zone*:
 - (a) 55 dB L_{A10} between 0700 and 2200 hours (daytime)
 - (b) 45 dB L_{A10} and 70 dB L_{AFmax} between 2200 and 0700 hours (night-time)
- 25. The **daytime** noise limits will be most applicable to the bulk of the activity that occurs on the site, however morning boat launching could occur in the **night** period.
- 26. Noise limits of 65 dB L_{A10} (daytime) and 55 dB L_{A10} and 80 dB L_{AFmax} (night-time) also apply within the *Industrial* zone. These limits apply at the site boundary and I expect they will be readily complied with by both the proposed and existing operations.
- 27. Construction activities are required to comply with the construction noise limits set out in the District Plan which refers to New Zealand Standard NZS 6803: 1999 *"Acoustics Construction Noise"*.
- 28. The Section 42A report notes that section C.1.8 of the Proposed Regional Plan also includes noise limits that apply to activity in the Coastal Marine Area. I agree that the noise limits in the Proposed Regional Plan are the same (or in some cases less restrictive) than the FNDC noise rules. Compliance with the FNDC rules will also result in compliance with the NRC Proposed Regional Plan noise limits.

Vibration

29. Our report also addresses vibration criteria. There are no vibration criteria in the operative District Plan, and I recommend that the relevant vibration limits from DIN4150-3 be used to set suitable vibration limits to ensure cosmetic building damage is avoided.

Underwater Noise

- 30. There are no underwater noise limits in the operative District Plan or within the Proposed Regional Plan. However the Proposed Regional Plan does require underwater noise to "adopt the best practicable option to ensure noise does not exceed a reasonable level" and "avoid adverse effects on marine mammals listed as Threatened or At Risk in the New Zealand Threat Classification System"
- 31. Our report sets out the noise limits thresholds for marine mammals to avoid temporary and permanent hearing damage as well as marine mammal behaviour effects. The NOAA interim guidance of a noise limit of 160 dB re. 1μPa rms is recommended as a conservative noise limit for the effect of impact piling on marine mammals. Our report states that there are no species of concern likely to be within the marine mammal behavioural response zone⁶ (300m from the type of piling used). I note that piling management conditions can be imposed (via the required construction noise and vibration management plan) which enable an appropriate response if there was any possible risk of marine mammals venturing into the behavioural response zone during piling activity. I discuss this later in my evidence.

Assessment of Construction Noise Emissions

Construction noise

- 32. An overview of construction noise levels associated with all proposed construction activities were discussed in section 5.1 of our report. The key noise generating activity will be impact piling. Noise emissions from dredging and general construction works are likely to be appreciably quieter.
- 33. Noise emissions from piling works are calculated to be 71 dB L_{Aeq} at 12 Kennedy Street (where dollies are used for impact piling). This would exceed the NZS6803:1999 construction noise limit of 70 dB L_{Aeq} by one decibel. We have recommended that the construction works be managed using a construction noise and vibration management plan, which (as the section 42A report notes) is a commonly adopted approach for avoiding and mitigating construction effects arising from larger-scale developments
- 34. The construction noise and vibration management plan would also manage issues that may arise during the project, such as if casing dollies are unable to be used to drive the hammered piles to refusal near the end of the piling. In such situations, the noise management plan would direct the contractor to take all practicable options to reduce noise effects, such as driving piles to refusal during the least sensitive time of day, etc.

⁶ Based on advice received from Mark Poynter (4Sight ecologist) by email on 28 May 2019

Construction vibration

- 35. We have determined that construction vibration for all adjacent receivers is anticipated to be within the range of 1mm/s and 5mm/s PPV. The level of vibration is expected to be below the limit for cosmetic building damage but at a level that could potentially result in some transient amenity effects. As the vibration will be below the DIN4150-3 limits, I consider that there is little risk of cosmetic building damage arising.
- 36. The calculated vibration levels assume stiff ground conditions (and include a safety factor). I note that the exact level of vibration will depend on the ground conditions between the foreshore and the adjacent dwellings. As the piles will be driven into the seabed and the adjacent dwellings are on elevated escarpments, I consider that there is a strong likelihood that vibration levels will be lower than calculated. The attenuation of vibration through soft / loose soils is significantly greater than through firm / dense soils.
- 37. Regardless, my recommendation is that all identified receivers within 150 metres of the project activities should be given at least three days notification prior to the proposed works occurring and for vibration to be managed using the construction noise and vibration management plan.

Assessment of Operational Noise Emissions

Daytime

- 38. I expect that the majority of works at the proposed maritime area will occur during the daytime.
- 39. We have calculated noise emissions from the existing boatyard as well as the proposed marine servicing area within the subject site. At the **existing boatyard** our noise assessment has allowed for a travel-lift, power hand tools, a tractor, general traffic, a water blaster and a sand blaster.
- 40. At the **proposed marine servicing area**, I expect that work on site will be variable and seasonal. We have allowed for power hand tools, a tractor, general traffic, forklift, truck and hiab as activities that will typically occur on the site.
- 41. Our assessment shows that there is unlikely to be an appreciable increase in noise emissions between the existing situation (with only the boatyard operating) and for the proposed situation (with both the boatyard and marine servicing area operating). This is due to the noisiest activities (travel lift, water blasting, and sand blasting) continuing to take place only on the existing site.
- 42. Based on our calculations, I expect that continued compliance with the District Plan noise limit of 55 dB L_{A10} will occur with the proposed maritime servicing area in operation.

43. There is one technical exception to the above statement of compliance: our assessment is that the existing boatyard operation will likely exceed the District Plan noise limit at the <u>site boundary</u> of 7 Lyon Street⁷ during busy periods. This is because the site boundary of 7 Lyon Street is at the foot of a steep heavily vegetated cliff, whereas the façade of the dwelling is elevated and set a considerable distance from the site boundary. In terms of noise effects, I consider that the noise level assessed at the façade of the dwelling is most relevant as the noise received at the cliff face would not result in any effects on the resident's amenity. The noise level of 49 dB L_{A10} calculated at the façade of the dwelling is within the range of acceptable noise levels in this location. I also note that this level of noise is our assessment of noise that would already occur from the existing boatyard activity – the proposed maritime servicing area would not increase the level of noise received at the dwelling.

Night-time

- 44. We have allowed for boat launching activity to occur prior to 0700 hours. Our assessment allowed for public and commercial boats to be launched, however I now understand that public trailer boats will not be launched at this ramp.
- 45. Calculations of noise levels have been made for nearest receivers based on busy use of the ramp in a 15-minute period⁸. Based on this assumption, compliance with the night-time zone limit of 45 dB L_{A10} is achieved at all receivers.

Section 42A Report

- 46. The s42A report has considered our noise and vibration assessment. No significant issues or concerns have been raised. Mr Hartstone agrees that the provision of a Construction Noise and Vibration Management Plan is a suitable way to manage construction noise and vibration. He also accepts that the extent of the technical infringement of the District Plan noise rule by the existing operation is unlikely to result in any unacceptable effects on the owner/occupier of 7 Lyon Street.
- 47. Overall the s42A report considers that "In this case, while there are infringements associated with visual amenity and noise which may generate off-site effects, those infringements are relatively isolated in scope and will not adversely affect the residential amenity enjoyed by residents in the adjoining residential areas" and "...the effects arising from the proposal as set out in the information provided will generally be minor or less than minor.

⁷ This is due to the site boundary of 7 Lyon Street being immediately adjacent to the boatyard, whereas the site boundaries of other residential sites are much further away from the existing boatyard. The exceedance relates to only the existing boatyard, the addition of the proposed maritime service area which is far from this boundary and is well screened by the headland. Noise from the proposed maritime service area will not contribute perceptibly to the overall noise level at 7 Lyon Street.

 $^{^{8}}$ We have allowed for a noise level of 90 dB L_{WA} during vehicle acceleration.

Section 42A Report Conditions

48. I have the following comments on the Conditions

NRC Proposed Condition 7:

Noise levels associated with the exercise of these consents shall not exceed those set out in Schedule 1, attached.

- 49. Schedule 1 of the proposed conditions refers to the construction standard (NZS6803:1999) and the noise limits in C.1.8 of the Proposed Regional Plan. As discussed in my evidence, I have noted that there is likely to be an exceedance of the construction noise limits during impact piling and I have recommended these exceedances are managed by way of a Construction Noise and Vibration Management Plan. I recommend the condition be altered to read '*Noise levels associated with the exercise of these consents shall not exceed those set out in Schedule 1, attached, except where exceedances of the construction noise limits are managed using the construction noise and vibration management plan specified in [condition 2] of the Far North District Council consent [ref].'*
- 50. The proposed Far North District Council consent contains the following recommended condition with regard to operational noise.
 - (d) Noise generated at all times from the areas located above Mean High Water Springs measured at any point within any site in the adjacent Coastal Residential Zone shall not exceed the following:
 - 55 dB L_{A10} between 0700 and 2200
 - 45 dB L_{Aeq} and 70 dB L_{AFmax} between 2200 and 0700

Sound levels shall be measured in accordance with NZS 6801:2008 "Measurement of Sound" and assessed in accordance with NZS 6802:2008 "Assessment of Environmental Sound". The notional boundary is defined in NZS 6802:2008 "Assessment of Environmental Sound" as a line 20m from any part of any dwelling, or the legal boundary where this is closer to the dwelling.

Noise shall be measured in accordance with New Zealand Standard NZS 6801:2008 "Acoustics – Measurement of environmental sound" and assessed in accordance with New Zealand Standard NZS6802:2008 "Acoustics – Environmental Noise."

- 51. There are potentially some issues with the above noise condition, including mixed use of L_{Aeq} and L_{A10} parameters, repetition of noise standards, and reference to the limits being assessed at *"any point within any site in the Coastal Residential Zone"* which will be technically breached by the existing operation at the site boundary of 7 Lyon Street. For these reasons, I recommend the following changes:
 - (d) Noise generated at all times <u>(excluding during construction)</u> from the areas located above Mean High Water Springs measured at the <u>notional boundary of any dwelling</u> shall not exceed the following:
 - 55 dB <u>L_{Aeq}</u> between 0700 and 2200
 - 45 dB L_{Aeq} and 70 dB L_{AFmax} between 2200 and 0700

Sound levels shall be measured in accordance with NZS 6801:2008 "Measurement of Sound" and assessed in accordance with NZS 6802:2008 "Assessment of Environmental Sound". The notional boundary is defined in NZS 6802:2008 "Assessment of Environmental Sound" as a line 20m from any part of any dwelling, or the legal boundary where this is closer to the dwelling.

Noise shall be measured in accordance with New Zealand Standard NZS 6801:2008 "Acoustics – Measurement of environmental sound" and assessed in accordance with New Zealand Standard NZS6802:2008 "Acoustics – Environmental Noise."

- 52. I note that no vibration limit specified. While vibration is unlikely to be significant, the following condition could be considered for completeness:
 - [x] Vibration due to piling shall not exceed the guidelines contained in DIN 4150-3:1999
 "Structural Vibration Effects of Vibration on Structures" when measured at dwellings in accordance with the standard.
- 53. Underwater noise effects on marine mammals is considered a low risk by the evidence of Ms Kane-Sanderson which states (in response to a submission on marine mammals) "In regard to marine mammals, and notwithstanding the PNRP mapping layer that denotes the entire Northland region as a 'Significant Marine Mammal and Seabird Area', there is no marine mammal presence likely within the site or affected by the proposed works".
- 54. I have spoken to Ms Kane-Sanderson and we have discussed the potential 'low risk' that marine mammals may be proximate to the works. We agreed that given there is not a 'zero-risk', the following matters could be included in the construction noise and vibration management plan to provide a robust way of avoiding effects on any mammals present in the area:
 - (a) A Construction Noise and Vibration Management Plan prepared by a suitably qualified and experience acoustician prepared in general accordance with the Marshall Day report, ref Rp 001 20190467 dated 13 June 2019. That Plan shall specify that any construction works shall only occur between the hours of 7.00 a.m. and sunset or 6.00 p.m., whichever occurs earlier, and only on days other than Sundays and public holidays.

<u>The Construction Noise and Vibration Management Plan shall also include management measures</u> for underwater noise effects on marine mammals should they enter the area. These measures shall provide for the following measures:

- i. <u>restricting in-water impact or vibration pile driving to within half an hour after sunrise and half an hour before sunset (i.e. daylight hours only).</u>
- ii. Using in-water piling methods that minimise underwater noise including 'soft starts' (gradually increasing the intensity of impact piling)
- iii. Using a non-metallic 'dolly' or 'cushion cap' between the impact piling hammer and the driving helmet, (e.g. plastic or plywood);
- iv. Ensuring construction workers are trained to look for signs of marine mammals and are required to routinely observe for marine mammals within 300m of the piling operation; and
- *v* · <u>Ceasing or not commencing impact or vibration piling activities if a marine mammal or</u> <u>diver is observed within the 300m area</u>

Submissions

55. I have been provided with excerpts of the submissions that are relevant to noise. I address each in turn:

Beck (Broadview Road)

- 56. The submission states that local residents in Kennedy Street and Scoresby Street will have to deal with truck, noise, lights, small and pollution.
- 57. It is my view that a negligible increase in noise level will occur during the bulk of the daytime operation in comparison to the level of noise emitted from the existing boatyard during busy periods of abrasive blasting and waterblasting, painting and boat maintenance.

K Taylor 27 Scoresby Street

- 58. The submission states that sound from the operation would drift up the valley to affect residents at the top of Kennedy Street and Scoresby Street.
- 59. In my view, while possible that noise from the operation will be audible at times, noise levels at 27 Scoresby Street should not increase appreciably above the existing level of noise from the boatyard. Based on my site visit, I consider that this dwelling will receive appreciable acoustic screening from the headland escarpment. I consider that noise levels at this dwelling will be well below the District Plan noise rules.

Smyth, 2 Kennedy Street

- 60. The submission raises concerns about noise below the house in the early morning and after dark.
- 61. We have assessed noise levels at 2 Kennedy Street and concluded that noise levels during the daytime will not increase perceptibly when considered in comparison to the highest level of noise likely to be emitted from the existing boatyard.
- 62. Our assessment of noise from early morning use of the boat ramp is that noise levels will be compliant with the District Plan limits. While such noise may be audible in the environment at those time, I do not consider that they will unreasonably affect amenity or result in significant sleep disturbance.

E Kennedy, 14 Scoresby Street

63. The submission raises general concerns about road noise, dust and traffic.

64. It is possible that road traffic movements further along Baffin Street may be audible on Scoresby Street, however I do not consider that these would generate high levels of noise or result in significant change in the level of amenity that exists given the existing level of traffic movements that occur on Baffin Street.

S Greenwood, 7 Lyon Street

- 65. The submitter supports the application but notes noise and dust as issues. Support is given conditional on a vegetation barrier being established by the applicant.
- 66. The dwelling at 7 Lyon Street will not receive additional noise from the proposed maritime service area, but I have noted that the existing boatyard operation may technically breach the District Plan noise rules due to the location of the site boundary (notwithstanding this will not result in effects given the location of the dwelling)
- 67. I note that thin vegetation barriers do not result in any objective reduction in noise level. Thin stands of vegetation are often claimed to reduce noise levels, but acoustic experts typically consider them to be only of psychological beneficial (rather than resulting in objective noise reductions).

D Bateman, 2 Kellet Street

68. The submission makes a general statement that noise will be of concern. I consider these matters are addressed by our report and my evidence.

D Halliday, 6 Lyons Street

69. The submission makes a general statement that noise will be of concern, specifically due to the oyster industry. I consider these matters are addressed by our report and my evidence.

B Drey, Russell

70. The submission makes a general statement that noise has not been given due consideration. I consider these matters are addressed by our report and my evidence – I consider that our assessment has diligently considered these matters.

G & M Johnson

- 71. The submission opposes any activities which produce noise above the District Plan.
- 72. The proposed maritime service area will not generate noise above the District Plan noise rules – the only potential breach of the *Coastal Residential* zone rules will potentially occur from the operation of the existing boatyard and only when assessed at the foot of the cliff (which is not near any residences and does not bear any relationship to noise effects).

J Halliday, 6 Kennedy Street

73. The submission makes a general statement that noise will be of concern. I consider these matters are addressed by our report and my evidence.

D Taylor, 27 Scoresby Street

- 74. This submission states that noise from the marina area and boatyard doesn't impact on upper Scoresby Street but due to geography of land, noise from south and east impacts directly.
- 75. In my view, while possible that noise from the maritime service area operation will be audible at times, noise levels at 27 Scoresby Street should not increase appreciably above the existing level of noise from the boatyard. Based on my site visit, I consider that this dwelling will receive appreciable acoustic screening from the headland escarpment. I consider that noise levels at this dwelling will be well below the District Plan noise rules.

R Cooke, 4 Kellet Street

- 76. The submission states "...as industrial use has grown the noise / dust / traffic and intrusion on adjacent residential dwellings has already resulted in stagnation in adjacent property values".
- 77. I consider that there will be negligible additional noise received at 4 Kellet Street due to the proposed maritime servicing area, which is well away from the dwelling and behind a headland.

Overall Assessment of Noise Effects

- 78. Overall, I consider noise and vibration reasonable in terms of the Resource Management Act. The noise effects on amenity of the residential area will not change perceptibly with the proposed extension to the boat yard. While technical exceedances of the District Plan noise limits are likely to currently occur at the foot of the cliff, noise from operation of the existing (and extended) boat yard is likely to be below the level of noise anticipated by the District Plan within the outdoor living spaces of residential sites.
- 79. I agree with the s42A report which summarises the situation well with the following statement: *"In this case, while there are infringements associated with visual amenity and noise which may generate off-site effects, those infringements are relatively isolated in scope and will not adversely affect the residential amenity enjoyed by residents in the adjoining residential areas."*

Peter Ibbotson

20 November 2020