

BEFORE THE NORTHLAND REGIONAL COUNCIL

IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of a resource consent application by Douglas Craig Schmuck under section 88 of the Resource Management Act 1991, for the early replacement of existing coastal permits and renewal of discharge permits for Doug's Opua Boat Yard and proposed new coastal permits for works associated with the reconstruction of the jetty facility, slipway refurbishment and new works including beach rehabilitation and seawall.

APPLICATION APP.039650.01.01

ADDENDUM TO S42A REPORT

MELANIE DONAGHY

NORTHLAND REGIONAL COUNCIL REPORTING OFFICER

1.0 Introduction and Background

1. This s42A Report Addendum is in response to the Hearing Committee's Minute No. 5 issued after the adjournment of the hearing on 18th May 2018. The purpose of the adjournment is as described in the Hearing Committee's minute provided as Attachment 1, *"to enable Mr Doug Schmuck ('the Applicant') to provide written details of the amendments to the applications made verbally at the hearing and to provide further information"* (point 1, Minute 5, 27th July 2018 from the Hearing Committee).
2. The Applicant provided written notice of amendments made to the applications on 28th May 2018 with the final versions of additional technical reports provided as further information, received on 16th July 2018.

Amended Applications

3. In the 'Memorandum of Counsel for the Applicant' provided on 28th May 2018, the applications were amended as follows:
 - The proposed beach rehabilitation works was withdrawn from the applications;
 - The proposed new seawall was withdrawn from the applications;
 - The proposed capital dredging area was reduced by 53% and the volume to be excavated reduced by 42%.

Further Information

4. The further information supplied by the Applicant on 16th July 2018 in support of the applications included the following:
 - Total Marine Services Ltd - Technical Report – Preliminary Design of Timber Jetty, Pontoon and Dredging at Doug’s Boatyard Opua (dated: 11 July 2018) (final version provided 16th July 2018).
 - 4Sight Consulting Ltd – Ecological Assessment: Doug’s Opua Boatyard – Assessment of Ecological Effects for Proposed Dredging and Structural Works (Dated: July 2018) (provided 12 July 2018).
 - AECOM – Doug’s Opua Boat Yard – Air Quality Assessment: Assessment of Air Emissions from Boat Yard Activities (Dated: 9 July 2018) (final version provided 16th July 2018).
 - MetOcean Solutions Ltd – For the Opua Marina Stage 2 Development (dated: October 2013) (provided 12 July 2018).
5. In reviewing the further information provided by the Applicant, specifically the ‘Structural Site Aerial Overlay’ plan (dated 13/07/2018) within the Technical Report from Total Marine, it appears that the proposed northern mudcrete grid has also been withdrawn from the applications, with one remaining mudcrete grid to the southern side of the reconstructed jetty facility.
6. Point 3 of Minute No. 5 issued by the Hearing Committee directs a response from the Northland Regional Council (NRC) reporting officer to address the evidence presented at the hearing, the amended applications and the Applicant’s further information.

Addendum Structure

7. For clarity, this addendum provides a response to the matters as outlined in Point 3 of Minute No. 5 in the following order:
 - 1) The Applicant’s further information – A brief summary is provided for each new technical report provided by the Applicant. I then provide my opinion as to the implications of the further information in relation to (a) the possible grant of consents and (b) any amendments to the recommended consent conditions.
 - 2) The evidence presented at the hearing and subsequent amendments to the applications are discussed together in relation to each of the proposed activities, where contention has been observed. I provide a response to this information in relation to (a) the possible grant of consents and (b) any amendments to the recommended consent conditions.
8. In forming the opinions reported in this addendum, I have sought and received expert advice from:
 - Richard Griffiths (NRC Marine Research Specialist) in respect of the 4Sight Ecological Report and proposed discharge conditions;
 - Ricky Eyre (NRC Coastal Monitoring Manager) in respect of consent compliance information and proposed discharge related conditions;
 - Paul Maxwell (NRC Coastal and Works Consents Manager) in respect of the Total Marine Technical Report; and proposed conditions;

- Jim Lyle, Northland Regional Harbourmaster in respect of the amended dredging of an access channel
9. Unless stated otherwise, I have adopted the advice as received. Copies of the written advice from Mr Griffiths, Mr Maxwell and Mr Eyre are attached as Appendices 2, 3 and 4 for completeness. The Harbourmaster provided verbal comment on the amended dredging proposal and potential effects to the existing public mooring area.
 10. In terms of a review of the AECOM Report, NRC engaged the services of Jenny Simpson, Technical Director – Environmental Engineering at Tonkin + Taylor. However, Ms Simpson’s assessment on the AECOM Report was provided shortly prior to the deadline for the completion of this addendum and I have therefore not had the opportunity to review or comment on Ms Simpson’s recommendations. A copy of her review is attached however as Appendix 7.
 11. This addendum concludes with a recommendation on the applications having reviewed the above information, comments and responses.

2.0 RESPONSE TO FURTHER INFORMATION PROVIDED BY THE APPLICANT

Total Marine Services Ltd Technical Report

12. This report was prepared by Andrew Johnson, Design and Project Engineer for Total Marine Group. The report analyses the sites locality and design considerations along with the construction methodology of the timber jetty, pontoon and newly proposed subsea erosion barrier¹. Beach morphodynamics and aesthetics are discussed along with the proposed dredging methodology.

Reporting Officer Response

13. In terms of the proposed subsea erosion barrier, the Total Marine Report provides a limited analysis of how the proposed barrier will function or how significant effects will be on the currently stable beach profile. Mr Maxwell has stated that there does not appear to be a clear need for the barrier or its efficacy for its intended purpose, and he has suggested that a shallow sloping batter is preferable in protecting the shellfish bed from dredging activities, with minimal modification to the stable seabed levels.
14. In regards to the proposed dredging methodology, Mr Maxwell has acknowledged that the batter slopes proposed are typical of those for similar scaled activities elsewhere in the Bay of Islands.

MetOcean Solutions Ltd – Opuia Marina Stage 2 Development Modelling

15. The Applicant has provided a copy of the above mentioned report which was commissioned by Far North Holdings Limited in support of its resource consent application for the Opuia Marina Stage 2 Development. The report was prepared in 2013 by MetOcean Solutions Ltd and presents output from a calibrated hydrodynamic model of the Bay of Islands, quantifying the potential changes that the Opuia Marina Stage 2 Development may have on tidal flows and sediment transport capacity within the environs.

¹ New coastal structure introduced to the applications post the completion of the NRC Staff Report

Reporting Officer Response

16. It is understood that this report is provided with the further information by the Applicant to provide background data in regards to the proposed dredging operations. It is also noted that the Total Marine Report² refers to the predicted current and sediment volumes established in the MetOcean Solutions Ltd report when discussing the proposed dredging methodology.
17. The modelling was undertaken by a reputable company with a high level of expertise and experience in hydrodynamic modelling. The models provide a broad understanding of water flows within the dynamic confluence of the Waikare Inlet. Mr Maxwell has commented that in regards to the Kawakawa River and the Veronica Channel, the model does not provide detail at a resolution to understand potential sediment transport within Walls Bay and the vicinity of the jetty and marina facility. However, Mr Maxwell believes that one can infer from the model presented, that once suspended sediment from dredging activities is transported into the vicinity of the Veronica Channel, it is highly likely that strong tidal flows will quickly entrain and disperse the suspended sediments.

4Sight Consulting Ecological Assessment

18. This report was prepared by Stephen Brown, Principal Marine Ecologist at 4Sight Consulting Ltd. In summary, the report addresses a general description of the environment, sediment quality, subtidal and intertidal biota, the shellfish bed and hydrodynamics.
19. A summary of the conclusions reached in the 4Sight Ecological Assessment assert that:
 - The effects to subtidal and intertidal biota from the proposed structural and dredging works are expected to be no more than minor.
 - Ecological effects associated with installation of the erosion barrier are expected to be no more than minor.
 - On balance, effects from the proposed activities in terms of contaminants are expected to be no more than minor.
 - Analysis of heavy metals in shellfish flesh found no evidence of accumulation of heavy metal contaminants in pipis collected from the pipi bed adjacent to the boatyard.
 - 4Sight Consulting consider this is a well-managed facility and improvements to the system for handling washdown water and stormwater from the boatyard hardstand implemented since 2002 represent improved environmental management and reduced potential for contaminants to enter the coastal marine area (CMA), and Doug's boatyard is likely to be a small contributor to the overall potential contaminant load in the wider area.
 - The proposed upgrade to structures and deepening around the facility can be carried out with short term and minor ecological or water quality effects confined largely to the immediate works area.

² Total Marine Technical Report – Preliminary Design of Timber Jetty, Pontoon and Dredging at Doug's Boatyard Opuā - 11 July 2018 – (Page 9)

Reporting Officer Response

20. The review carried out by Mr Griffiths is largely supportive of the conclusions reached by Mr Brown, with extra controls recommended for the protection of water quality and the shellfish bed, including an amendment to the condition relating to the temporal restriction on dredging activity during certain months.

21. Accordingly, I recommend that condition 58 be amended as follows:

Dredging works shall only be carried out between 1 March and 30 ~~November~~ September.

22. The proposed sub surface erosion barrier was not supported by Mr Griffiths, whereby he concluded that it was unnecessary and that it would likely cause more disturbance to the beach and intertidal shellfish bed during construction and may have unintended consequences for the ongoing beach hydrodynamics.

AECOM – Air Quality Assessment

23. This report was prepared by Peter Stacey, Principal Air Quality Consultant for AECOM New Zealand Limited. In summary, the report assesses the effects of discharges to air from the Applicant's boatyard activities on the boatyard site and off-site locations. In assessing these effects, dust nuisance from water blasting, sanding and grinding activities and volatile organic (VOC) emissions from the application of antifouling and paints were regarded. A review of the recommended consent conditions is also provided in this assessment.

24. A summary of the conclusions reached in the AECOM Air Quality Assessment assert that:

- Based on an eight day particulate monitoring study, there is unlikely to be any nuisance effects from water blasting, sanding or grinding activities.
- The results of atmospheric dispersion modelling determined that VOC concentrations at nearby residences and at the reserve to the south, were typically below accepted international air quality assessment criteria designed to protect human health. Concentrations of hexamethylene isocyanate have the potential to exceed health-effect assessment criteria when the wind is blowing from the northern quadrant, therefore it is recommended that the use of paints containing this compound are limited during these periods of time.
- Overall, AECOM considers that there is limited potential for VOC from the application of antifouling and painting to cause human health effects, particularly given the limited duration that this activity takes place.

Reporting Officer Response

25. The AECOM Report acknowledges the recent installation of an anemometer at the site (as recommended by the Committee at the hearing). The anemometer will provide greater clarity for both the Applicant and general public in terms of consent compliance for any discharge of contaminants to air from sanding and spray coating operations. It is however important that the general public can access the anemometer to check and record compliance if need be.

26. Mr Stacey considers that electric sanding, grinding and spray coating operations should only be undertaken over impermeable surfaces and when the wind speed is between 0.5 m/s and 5 m/s (as a 60 second average). In terms of the application of antifouling and paint, Mr Stacey considers that these activities should only be undertaken when the wind speed is greater than 0.5 m/s and when the apparent winds on the slipway are from the northeast to south³.
27. Based on the above and recommendation of Mr Stacey, I recommend that condition 69 be amended as follows:

~~*Electric sanding and spray coating operations shall be conducted with regard to wind direction and wind strength to prevent or minimise any adverse effects on the environment. Sanding and grinding operations shall only be conducted when the wind speed is between 0.5 m/s and 5 m/s (as a 60 second average). The application of antifouling and paint shall only be undertaken when the windspeed is greater than 0.5 m/s and when apparent wind on the slipway is from the northeast to south (wind is blowing up the slipway through an angle of 45 to 170 degrees). The Consent Holder shall maintain equipment adjacent to the boatyard boundary that displays current windspeed and direction, this equipment and information display shall be visible from the reserve.*~~

28. In terms of spray drift from water blasting, Mr Stacey considers the use of mitigation screens to be unnecessary given the limited potential for dust nuisance from the water blasting of vessels. He further suggests that provided the water source is free of significant impurities, there is limited potential for effects from water blasting. This maybe the case in regards to 'health' effects, however in terms of 'amenity' effects, I disagree with Mr Stacey. Given the proximity of the reserve and public walking track to where water blasting is carried out, water spray in general maybe considered to be offensive by members of the public, regardless of whether there are any contaminants in the water spray or not. This has been supported through the evidence of Mr Rashbrooke and Ms Marks at the hearing.
29. Further to the above, Mr Stacey has suggested that an advice note be included in the consent conditions stating that "water vapour associated with water blasting activities at or beyond the site boundary is not considered to be offensive or objectionable". For the reasons outlined in the above paragraph, I do not support the inclusion of such an advice note.
30. Subsequently, I do not support the recommendation of Mr Stacey to amend condition⁴ 71 to limit the use of screens. However, the following minor change is recommended to ensure that the screens do not remain on the site when high pressure water blasting is not carried out:
31. Temporary screens shall be erected around blasting areas at all times during high pressure water blasting to mitigate effects of spray drift.
32. In regards to dry abrasive blasting, Mr Stacey has indicated that this activity is no longer undertaken at the boatyard. Accordingly, those conditions which solely refer to dry abrasive blasting have been removed in their entirety from the revised conditions (conditions 74 – 76⁵) and those conditions which include the reference to dry abrasive blasting have been amended.

³ AECOM Assessment of Air Emissions from Boat Yard Activities (9 July 2018) – Review of Proposed Resource Consent Conditions – Page 22

⁴ Condition numbering was altered from 72 to 71 in revised conditions (15 May 2018) provided at hearing

⁵ Condition numbering was altered from 75-77 to 74-76 in revised conditions (15 May 2018) provided at hearing

33. In final, it is important to note here that the recommendations within Ms Simpson's assessment of the AECOM Report (which I have not yet reviewed) may change my recommendations in regards to appropriate consent conditions for air discharges.

3.0 RESPONSE TO EVIDENCE PRESENTED AT THE HEARING AND SUBSEQUENTLY AMENDED APPLICATIONS

Authorised Use of the Existing Jetty

34. A number of submitters presented evidence during the hearing asserting that the existing jetty has never been authorised for boat maintenance or repairs to be carried out. However, referring to the current resource consent for the existing jetty, set to expire in 2036⁶, I can clarify that the following 'use' is currently authorised.
35. "For purposes associated with the boatyard, including survey and inspection of ships and safe ship management, gridding of vessels for maintenance, marine brokerage of vessels for sale and/or charter in conjunction with the boatyard office".
36. Further to the above, the following condition of the current jetty authorisation is relevant:

"The wharf shall not be used for the permanent mooring of any vessel. For the purposes of this condition "permanent mooring" means the use of the wharf for longer than 12 hours in any seven day period or the use for other than repairs and maintenance or survey work which, because of their nature, requires a vessel to located at the wharf for a longer period."

Public Access to the Reconstructed Jetty and Marina Facility

37. In response to evidence raised at the hearing and comments made by the Committee in relation to the permitted and historical use of the existing jetty, an evolution of the existing jetty has been prepared and is annexed to this addendum as part of Appendix 6.
38. Of particular note is that the previous owner of the boatyard, Mr Elliot, was granted a Harbour Board Licence in 1989 for the construction of the existing jetty to be used in conjunction with the boatyard operations provided that reasonable public access was allowed.
39. When preparing my initial assessment on the application, the current level of jetty use by the public was a valid consideration and is referred to in the s42A report⁷. Referring to the my report, discussions with Council staff and the Applicant, along with the review of written submissions received, lead to the conclusion that the public use of the jetty was not high and that the jetty has always been a 'full working wharf'. However, new evidence presented by submitters at the hearing has indicated that the current use of the existing jetty by the public is greater than what was initially understood, with various mooring/vessel owners frequently dropping off and collecting passengers at the jetty. In light of this new evidence, further mitigation is recommended to ensure that adverse effects to public access can be avoided or adequately mitigated.

⁶ NRC resource consent reference: CON20030791408

⁷ NRC s42A Staff Report - APP.039650.01.01 – (Paragraphs 77 – 81)

40. It is therefore recommended that the proposed locked gates be relocated further seaward to the commencement of the proposed gangway, thereby providing security to the proposed marina while allowing full public access over the fixed jetty. In addition, it is recommended that the locked gates remain open during daylight hours to provide unrestricted public use of the pontoon if not in use by another vessel.
41. In light of the above, it is therefore recommended that condition 31 be amended as follows:

*The area of exclusive occupation, over which the Consent Holder may exercise control of access and use, is limited to the Occupation Area identified on the Total Marine Services Limited drawing referenced as Northland Regional Council Plan Number 4826/2, except that the Consent Holder shall not limit **public** access to and reasonable use of:*

- (a) *The dinghy ramp and access on to the intertidal beach on the southern side of the slipway; and,*
- (b) *The jetty facility and marina facility ~~by the pedestrian public during daylight hours by arrangement with the jetty facility and marina management.~~ Signage shall be erected on the jetty facility gateway to advise the public of the availability of the public access.*

Reconstructed and Existing Jetty Abutment

42. In terms of the jetty abutment being located landward of Mean High Water Springs (MHWS), the Applicant presented evidence at the hearing which directed the Committee to Far North District Plan (FNDP) Rule: 12.7.6.1.1(IX), which states (*abbreviated for relevance*):

“Any building and any impermeable surface must be set back from the boundary of the coastal marine area a minimum of 30m provided this setback does not apply to Doug’s Opuā Boatyard’s existing uses and or resource consents applicable over Sec 1, 2, 3 & 4 SO68634 (esplanade reserve) CT 121C/187; NRC Plan Map 3231B; and pt Lot 1, Lot 2 & Sec 3 Town Block of Opuā XXXII CT 21C/265.

43. The Applicant considers this rule to be relevant to the current proposal to reconstruct the jetty facility, thereby categorising the jetty abutment where it is located landward of Mean High Water Springs (MHWS) as a permitted activity under the FNDP.
44. My understanding of FNDP Rule 12.7.6.1.1(IX) is that it is specific to existing uses and/or resource consents as they pertain to Doug’s Opuā Boatyard. If the reconstructed jetty facility is to be constructed from the existing jetty abutment (i.e. the existing jetty abutment remains) I believe “existing uses” would be relevant and no land use consent would be required. However, if the reconstructed jetty facility is to be totally rebuilt including the jetty abutment landward of MHWS, it is my interpretation that discretionary land use consent would be required from the Northland Regional Council (NRC) under the Transfer of Powers and Functions agreement between the Far North District Council (FNDC) and NRC.
45. Further to the above, I can clarify that the existing jetty abutment currently holds a valid land use consent from FNDC.

Marina

46. Various submitters raised concerns at the hearing with the appropriateness of the proposed marina, in particular, the evidence presented by Ms Johnston asserted that the “RCP is zoned for moorings not for a marina”. This is incorrect as the proposed site is located within a zone which is regarded as the most suited location for a marina within the Operative Plan, being the MM4 zone (Moorings including Marinas Management Area). Accordingly, the proposal was assessed against the general performance standards of Rule 31.6.11 of the RCP along with relevant MM4 ‘Marina Policies’ including the following:

28.4.7.a *Allow for the potential for marina development in Marine 4 (Moorings including Marinas) Management Areas.*

28.4.8 *The Council and consent authorities will, when considering a resource consent application for a marina development, consider the appropriateness of the proposal against the following parameters:*

- the location, intensity, character and scale is appropriate to the character, heritage and amenity values in the coastal environment including the land above mean high water springs; and
- the infrastructure (including sewage disposal, rubbish collection and parking) necessary for use, activities and development exists or is provided, within the Marine Management Area or within the adjoining district; and
- avoiding conflicts with other activities to the extent consistent with the purpose of the Marine Management Area; and
- avoiding as far as practicable adverse environmental effects (including cumulative effects); and
- take into account sites of cultural value; and
- taking into account likely changes to water quality and flushing characteristics and proposals for the management of discharges and for heavy metal monitoring program; and
- providing for the rationalisation and reduction of surrounding moorings; and
- taking into account the need for reasonable provision of public access; and
- take into account the positive and negative social, cultural and economic well-being effects to the local area, including;
 - o the extent to which there are economic benefits from the construction and use of the marina to the local economy; and
 - o the extent to which there are social benefits of providing a greater number of people the opportunity to moor their vessels at sought after locations; and
 - o the extent to which a more efficient use of water space will be achieved compared to the existing use of the water space for moorings, including whether the water space needed for moorings is reduced; and
 - o the extent to which the demand for mooring space would be better met by a marina compared to other mooring systems; and
- any other matter the Council considers relevant.

47. In response to evidence presented at the hearing by submitters including Ms Johnston, Mr Rashbrooke and Mrs Kyriak, the above direction of the Operative Plan indicates that marinas are considered to be an appropriate activity at the location sought provided certain parameters are met. In accordance with the above parameters, in particular the second paragraph whereby the appropriateness of the marina proposal is to be measured against “*the infrastructure (including sewage disposal, rubbish collection and parking) necessary for use, activities and development exists or is provided, within the Marine Management Area or within the adjoining district*”, rubbish disposal and curbside collection is available at the boatyard site, a publicly available sewage pumpout system and refuelling facilities operated by Far North Holdings Limited is available at the Opuia Marina approximately 600 m from the proposed marina. It is understood that toilet facilities are available in the boatyard building. If this is not the case, the nearest public toilet facilities are available near the Opuia ferry ramp. It is also understood that parking is likely to be able to be accommodated on the boatyard site with further limited parking near the Opuia Community Hall on the corner of Beechey Street and Richardson Street via the coastal walkway. The proposed use of the marina berths by visiting vessels (offshore) would likely mean that demand for additional parking attributed to use of the marina berths would be limited.
48. The evidence presented by Mrs Kyriak addressed concerns with the proposed marina and focused on the policies of the Proposed Plan rather than the Operative Plan. While it is acknowledged that the direction of the Proposed Plan provides a more current policy direction from the Council, the policies within this proposed document are afforded little weight at this time as issues associated with them are yet to be resolved.
49. As discussed above, I have accepted the evidence presented at the hearing by submitters in terms of the level of public use of the existing jetty facility. As a result of this new information, further mitigation is required in order to avoid adverse effects to public access as far as practicable. It has therefore been recommended that condition 31 be amended to provide greater public access over the jetty facility including the marina.
50. It is also recommended that condition 37 be amended in accordance with current Marine Pollution Regulations as follows:

*The Consent Holder shall prohibit berth holders, as a condition of berthage, from discharging wastes (e.g. **untreated** sewage, ~~greywater~~, oil, contaminated bilge water) into coastal waters within or adjacent to the jetty and marina facility.*

Mudcrete Grid/s

51. Although not referred to within the amended applications provided by the Applicant⁸ the Technical Report provided by Total Marine includes updated plans for the applications which show only one mudcrete grid⁹, with the more northern grid removed. It is therefore assumed that only one grid is now proposed on the southern side of the reconstructed fixed jetty.
52. Evidence was presented at the hearing by submitters both in support and opposition to the proposed mudcrete grid/s.

⁸ Memorandum of Counsel for the Applicant Seeking Enlargement of the Time by Which Supporting Information is to be Filed – Colleen Prendergast – 28 May 2018

⁹ Total Marine Technical Report – Preliminary Design of Timber Jetty, Pontoon and Dredging at Doug’s Boatyard Opuia - 11 July 2018 (Total Marine Services Ltd - Structural Plans – 13 July 2018)

53. To provide clarification to my initial assessment of the appropriateness of this activity, reference was made to the most recent Northland Regional Pest and Marine Pathway Management Plan¹⁰ (Pest Management Plan). This recently adopted management plan includes rules seeking to prevent the spread and establishment of marine pests into and around Northland. The relevant rules include:

Rule 10.1.1 The owner or person in charge of a craft entering Northland must ensure that the fouling on the hull and niche areas of the craft does not exceed 'light fouling'.

Rule 10.1.2 The owner or person in charge of a craft moving from one designated 'place' in Northland must ensure that the fouling on the hull and niche areas of the craft does not exceed 'light fouling'.

54. For clarity purposes, 'light fouling' is defined within the Pest Management Plan as: "small patches (up to 100 millimetres in diameter) of visible fouling, totaling less than five percent of the hull and niche areas. A slime layer and/or any species of barnacles are allowable fouling".

55. In achieving the outcomes sought within the Pest Management Plan, the Council have become more acceptant of mudcrete grid proposals in recent times, thereby assisting vessel owners/operators in achieving compliance with the relevant aforementioned rules of the Pest Management Plan, seeking the prevention of spread and establishment of marine pests into Northland.

56. Council's required controls and restricted use of the mudcrete grid is reflected in the recommended consent conditions and it is considered that any adverse effects generated by the placement or use of the grid can be mitigated or avoided through compliance with the recommended consent conditions. However, the evidence presented at the hearing reflecting non-compliance of discharge consent conditions on separate occasions along with the recent sampling results from NRC's monitoring staff (post hearing)¹¹, have led me to adopt a precautionary approach¹² with my consideration of this new activity. I therefore no longer support the granting of consent for the following activities as the effects on the CMA by the Applicant's operations are uncertain and potentially significantly adverse:

- A mudcrete grid
- To discharge washdown water containing contaminants to the CMA.

57. Should the Committee choose to grant consent for the above activities, the recommended conditions have been amended to provide greater protection to the CMA and clarity for all those concerned. The amended conditions are provided below:

58. Proposed amendment to condition 18:

¹⁰ Northland Regional Pest and Marine Pathway Management Plan 2017 – 2027 (www.nrc.govt.nz)

¹¹ The compliance matters are discussed under 'Discharges' further in the Addendum (pages 16-17)

¹² New Zealand Coastal Policy Statement – Policy 3 – Precautionary Approach

The structures shall be constructed and maintained in ~~general~~ accordance with the **attached** Total Marine Services Limited drawings referenced as Northland Regional Council Plan Numbers **4826/1** and **4826/3**. **The mudcrete grid shall be designed to include a sump capable of holding a submersible pump and constructed so that any water discharged onto the grid is directed into the sump.**

59. Proposed amendment to condition 39:

Activities on the mudcrete grids shall be limited to:

- (a) Inspection of vessel hulls;
- (b) Removal of micro-fouling marine growth, being slimes and/or films, from vessel hulls by, wet wiping with 'soft tools' such as cloths, squeegees or wiper systems, sponges, soft brushes or other non-abrasive methods;
- (c) The cleaning of vessel hulls using low pressure high volume water. **Where wash down water is discharged onto the grid, the water containing contaminants shall be pumped from the grid sump into either a containment system for removal from the coastal marine area or directly to trade waste. The sump pump shall be sized to have sufficient capacity to avoid overflow of wash water from the grid sump onto the adjacent foreshore and seabed.**
- (d) Removal of marine growth (macro-fouling) from propellers, drive shafts etc and sea chests using hand tools. All material removed shall be contained **(e.g. in buckets, on tarpaulins or drop cloths)** and disposed of outside of the coastal marine area; and
- (e) Minor repairs to vessels involving no discharge of contaminants into coastal waters or onto the seabed.

60. Proposed amendment to condition 41:

All solids, ~~and~~ sludge **and liquids**, removed from vessels using the mudcrete grids or from the cleaning of the grids shall be disposed of at an off-site facility that is authorised to accept such wastes.

~~**Advice Note:** As far as is practicable, the contaminated liquids generated during wet wiping/cleaning activities and washdown shall be collected, and disposed of into the Ōpua municipal sewage system.~~

61. Proposed amendment to condition 42:

Signs shall be erected and maintained on the jetty **and marina** facility adjacent to the mudcrete grids advising of the restrictions on activities at the grids.

62. Proposed amendment to condition 63 (Discharge Washdown Water Containing Contaminants to the CMA):

The discharges of **vessel** hull washdown water authorised by this consent applies only to the area of the mudcrete grids identified on the **attached** Northland Regional Council Plan Numbers **4826/1** and **4826/4**. **The discharge may only occur when the grid surface is exposed during the low tide cycle and only if sump pumpout equipment is installed and operating.**

Slipway

63. The evidence of Mrs Kyriak asserts that the slipway is not part of the current applications as it legally stands alone pursuant to s178 of the Harbours Act 1950. While it is acknowledged that the jetty and slipway were granted a Harbour Board Licence in 1989 (deemed coastal permit), they were both granted resource consent under the current consent¹³ which expires in 2036, and are part of the current applications.
64. As a further point of clarification, the current/subject application to refurbish the existing slipway relates only to those portions of the slipway which are within the CMA (below MHWS).

Dredging

65. The proposed capital and maintenance dredging was an issue of contention among many of the opposing submitters at the hearing, in particular the evidence presented by Mr P Clark representing the Waikare Marae, Mr D Clark and Mrs J Clark focused solely on the dredging element of the applications and its potential adverse effect to the further degradation of water quality, amenity and recreational use of Walls Bay including kaimoana. Mr P Clark tabled photos and drawings in support of the Waikare Marae's concerns with the proposed dredging and subsurface erosion barrier.
66. Mr Rashbrooke's evidence at the hearing included concerns with the proposed dredging area and potential adverse effects to the public mooring area including his own personal mooring.
67. Both Ms Marks and Ms Johnston provided expert evidence at the hearing in support of their submissions on the applications. The expert evidence of Mr John Booth¹⁴ and Ms Johnston reviewed the 4Sight Consulting Ecological Report¹⁵ provided by the Applicant post the notification period. However, the content and purpose of the 4Sight Report was taken out of context in the expert reviews. The specific purpose of the 4Sight Report was later clarified in the letter from 4Sight Consulting Limited¹⁶ which was provided as part of the Applicant's evidence at the hearing.
68. In addition to the above, it is however acknowledged that my s42A Report omitted my assessment on the hydrodynamics and ecological effects resulting from the proposed structural works and dredging of an access channel. In this regard, I have accepted the advice from Mr Maxwell and Mr Griffiths in their responses to the further information¹⁷ provided by the Applicant (discussed earlier in the report), which addresses these matters.

¹³ NRC resource consent reference: CON200307914 (01-02)

¹⁴ Expert evidence of John Booth, Marine Scientist – 8 May 2018 – In support of Ms Marks submission

¹⁵ 4Sight Consulting Ltd – Ecological Survey: Dougs Opuia Boatyard – Ecological Report – Stephen Brown - April 2018

¹⁶ 4Sight Consulting Ltd – Response to evidence briefs of J Booth and J Johnson: Dougs Opuia Boatyard – Stephen Brown – 15 May 2018

¹⁷ Reports provided on 16 July 2018 by the Applicant from 4Sight Consulting Ltd, Total Marine Services Ltd and MetOceans Solutions Ltd (Opuia Marina)

69. As a result of matters arising at the hearing by submitters, the Applicant has reduced the proposed capital dredging as shown on the plans included in the Total Marine Technical Report provided as further information¹⁸. The amended proposal reduces the area to be dredged by approximately 52% and the volume to be excavated by approximately 42%. In support of the amendment to the proposed dredging, technical reports were provided as further information from Total Marine Services Ltd and 4Sight Consulting Ltd. A copy of the MetOcean Solutions Ltd modelling report for the Opuā Marina Stage 2 Development was also provided.
70. As previously discussed, I have accepted the expert advice of Mr Griffiths and Mr Maxwell in regards to the further information supporting the amended dredging proposal.
71. In terms of potential adverse navigational effects to the public mooring area, Council staff discussed the revised dredging area with the Regional Harbourmaster and he has confirmed that he has no navigational safety concerns with the proposed dredging within the MM4 area. It is understood that the dredging in the vicinity of the jetty will enable safe manoeuvring of deeper draft vessels at all stages of the tide. The Applicant now has a 'Mooring and Vessel Management Plan' in place with the Harbourmaster to manage the movement and replacement of vessels and moorings during dredging activities. If consent is granted, the movement of the moorings affected will be undertaken by an approved mooring contractor, who will alter the mooring configuration to accommodate any increased depths arising from the dredged channel.

Subsurface Erosion Barrier

72. The proposal to construct a subsurface erosion barrier was provided by way of an emailed plan titled 'Shellfish Bed Sub-Surface Erosion Barrier', dated 2nd May 2018. This email was received after the completion of my s42A report and prior to the hearing of the applications. It is understood that the subsurface erosion barrier is proposed to minimise the potential adverse effects of the dredging and slipway reconstruction on the beach and the existing shellfish bed. An assessment of the proposed barrier against the relevant planning documents was not included with the subsea erosion barrier plan.
73. The proposed subsea erosion barrier has been included in the applications post notification and is an additional structure/activity to those proposed in the current applications and requires resource consent pursuant to the RCP and the PRP.
74. In light of the above, I believe this additional structure cannot be considered as part of the current applications.

Exclusive Occupation

75. The evidence of Mrs Kyriak disputed the use and meaning of the word 'occupy' in regards to the proposed coastal permits. To clarify the requirement of this word, I refer to section 12(2)(a) of the RMA whereby a structure within the CMA must hold a valid resource consent to 'occupy' any part of the common marine and coastal area if not permitted to do so by a national environmental standard or rule in a regional coastal plan or proposed regional coastal plan. To further clarify, this does not give exclusivity to the area of occupation.

¹⁸ Total Marine Services Ltd - Dredging Plan with NRC Aerial Overlay – Rev 5 – 13 July 2018 and Dredging & Mooring Management Plan – Rev 5 – 13 July 2018

76. Mrs Kyriak in her evidence, also disputed the proposed 'Area of Exclusive Occupation' in comparison to the 'Boundary of Occupation' from the current consent (2003)¹⁹. To clarify, the 'Boundary of Occupation' refers to an area of exclusive occupation in the current consent. I refer to condition 2 from the current consent (2003):

The Consent Holder shall have the exclusive occupancy of the area of seabed within the boundary of occupation area shown on Northland Regional Council Plan No: 3231 except that the Consent Holder shall allow reasonable public access to and through this area and reasonable public access to and use of the wharf and pontoon structures.

77. The current applications seek to extend the currently authorised area of exclusive occupation further north to include the berthage areas around the reconstructed jetty and marina facility and south to include the slipway and dinghy ramp. The area of exclusive occupation sought by the Applications can only apply to the CMA. The recommended conditions of consent (Proposed condition 31a) places limits on the exclusivity and does not limit public access to the dinghy ramp or the intertidal area on the southern side of the slipway that may be within the occupation area. Furthermore, I have recommended a change to condition 31 as discussed earlier in the addendum, which provides greater public access to the reconstructed jetty and marina facility.
78. In addition to the above, I recommend that the Applicant relook at the area of exclusive occupation and further clarify the extent of the extension to this area which is sought. An area of exclusive occupation should reflect the minimum area required to carry out the activity it supports. A reduction in this boundary area maybe appropriate.

Seawalls

New Proposed Seawall

79. The new proposed rock seawall was an issue of contention among many submitters at the hearing. Consequently, the Applicant has withdrawn this component of the applications.
80. Those conditions which relate to the seawalls (both new and existing) have been amended to reflect this change in the attached revised conditions.

Existing Seawalls

81. The Total Marine Services Ltd plans which were circulated just prior to the hearing, and the subsequent plans provided after the hearing adjournment indicate the existing small seawall north of the existing jetty and a small section of the southern seawall is in fact landward of the MHWS mark (last established in 2010). Subsequently, these existing structures require land use consent, which can be captured by the regional council as a 'hard protection structure' pursuant to PRP Rule C.1.1.17. This rule addresses both s9 and s12 matters within the RMA and was captured within my s42A report.
82. Further to the above, I can clarify that the existing seawalls hold valid land use consents for those parts of the seawalls which do not otherwise lie in the CMA from FNDC.

¹⁹ NRC resource consent reference: CON20030791409

Beach Rehabilitation Works

83. These works were not supported in my s42a Report and were contended among many submitters. Subsequently, the Applicant advised at the hearing that this activity had been withdrawn from the applications.

Discharges

84. The Applicant's evidence presented at the hearing included a request to change recommended consent condition 71²⁰ which states:

"Screens shall be erected around blasting areas during high pressure water blasting to mitigate effects of spray drift."

85. The Applicant requested this condition be amended to read:

"Screens shall be erected around blasting areas during high pressure water blasting to mitigate effects of spray drift. The screens shall be of a height sufficient to effectively direct and contain contaminants within the impervious slipway surfaces to allow the collection and treatment of contaminated wastewater thereafter through the discharge containment system".

86. It is also noted and has been discussed, that Mr Stacey, author of the AECOM Report agrees with the Applicant in regards to this condition.

87. To reiterate my comments earlier, the issue of spray drift becomes an amenity effect which was not assessed within the AECOM Report.

88. Amenity values are those characteristics that influence and enhance people's perception and appreciation of a place.

89. The reserve, in particular the public walking track, is immediately adjacent to where water blasting is carried out and water spray in general maybe considered to be offensive by members of the public, regardless of whether there are any contaminants in the water spray or not. I therefore, continue to believe that this condition is crucial in mitigating adverse effects from spray drift and do not support the Applicant's recommended change to condition 71.

90. During the course of the hearing, submitters presented evidence pertaining to the Applicant's level of non-compliance of previous and current discharge consent conditions. The evidence presented at the hearing by Ms Marks and Mr Rashbrooke included two videos with photographs illustrating various instances of non-compliance with discharge consent conditions. While it is acknowledged that these photos and videos illustrate consent non-compliance by the Applicant, it is not known when these photos/videos were taken as there were no dates provided (whether they were taken during the current discharge consent term (last 10 years) or prior to).

91. Nevertheless, the above evidence was highly concerning, particularly given this evidence appeared to be contrary to the advice I had received from Council's Coastal Monitoring Department²¹.

92. At the adjournment of the hearing, I asked Council's Coastal Monitoring Manager, Mr Eyre, to provide a response on the evidence presented at the hearing by submitters. These comments are annexed as Appendix 4.

²⁰ Condition numbering was altered from 72 to 71 in revised conditions (15 May 2018) provided at hearing

²¹ NRC s42A Staff Report - APP.039650.01.01 – (paragraph 129, page 32)

93. In summary, Mr Eyre confirmed that all complaints received regarding Doug's Boatyard had been actioned by NRC staff, with those complaints relating to the tenure of the reserve being out of NRC's jurisdiction.
94. Mr Eyre acknowledged that the current layout of the slipway is an area needing improvement, however the recent reserve land tenure matters had limited this from happening. Referring to the current abatement notice which was served on the Applicant²² (**Appendix 5**), the Applicant is required to concrete the slipway and ensure all stormwater from the slip enters the treatment system once the reserve land tenure matters are resolved. It is understood that in light of the recent Court of Appeal judgement²³, the requirements within the Council's abatement notice can now be met.
95. Further to the above, I have been advised that an inspection of the boatyard was carried out during the week of 24th May 2018, where it was noted that stormwater from the lower area of the boatyard was running down the slipway to the sump, where once full, would overtop and run directly into the CMA. The stormwater from the upper area of the boatyard was discharging through the stormwater treatment system (being ~75% of the yard).
96. It is understood that this matter of non-compliance has since been remedied by the Applicant with all stormwater being pumped through the treatment system.
97. In light of the non-compliance observed in May, an additional inspection was carried out by NRC monitoring staff on 20 June 2018 during a heavy rainfall event. The results are also annexed in Appendix 4. The sampling highlighted particularly high levels of copper and zinc within the boatyard's discharged stormwater, similar to untreated levels found at other boatyards. This indicates that the current stormwater system is not working effectively which is a matter of great concern and in need of remedying.
98. In conclusion, I would like it known that the submitters' evidence provided at the hearing and subsequent sampling results from NRC inspections, has challenged my ability to continue to support the recommendation of my s42A report in regards to the discharge permits, particularly the discharge of stormwater. Furthermore, the knowledge that the Applicant relies on the discharge permits for the continued operation of his boatyard business has been a considerable matter to consider, particularly in regard to the purpose of the RMA²⁴.

²² NRC Abatement Notice Under s322 & 324 of the RMA – File Ref: E4.12;ICE421099 – 27 October 2010

²³ Court of Appeal of NZ Judgement – CA119/2017 (2018) NZCA 262 – Between Opuia Coastal Preservation Inc and Far North District Council, Minister of Conservation and DC Schmuck – 20 July 2018

²⁴ Resource Management Act 1991 – Part II – Section 5(2)

99. It has become apparent to me that the historical limitation of the reserve land tenure matters has restricted the Council in the past to deal with compromise rather than best practice in regards to discharge compliance. It is expected that the recent Court of Appeal judgement on this matter will provide more certainty to submitters in regards to the permitted boundaries of the Applicant's boatyard operations. In addition, the revised consent conditions for discharges should provide all parties involved, with more clarity and expectation than the consent conditions of the historical discharge consents. In any event, consent compliance and regular monitoring is paramount to the successful mitigation of adverse effects generated by the discharge operations of the boatyard. The Committee may consider a shorter consent term is appropriate for the discharge permits, similar to the determination of the previous discharge consent application²⁵, whereby a consent term of 10 years was granted.
100. In light of the recent sampling results, the following amendments to the discharge related consent conditions are recommended:
101. Condition 33 relating to the water quality limits has been deleted, with reliance left to the conditions which refer to heavy metals in sediment levels. This is due to the practicalities of sampling and the difficulties in proving the source of the contamination. NRC's monitoring staff have found that following rainfall events there is a high load of copper in the embayment waters at control sites.
102. Condition 35 has been amended to provide more clarity:

Concentrations of metals in seabed sediments adjacent as measured at any point 10 metres from the facilities shall not exceed the following:

Metal	Limit in Milligrams per Kilogram (dry weight)
Copper	65
Lead	50
Zinc	200

103. Condition 66 has been amended as follows:

~~Water blasting or washdown using high volume water shall not be undertaken on the grids. As far as is practicable washdown liquids shall be contained and disposed of to trade waste system.~~ **The discharges to air authorised by this consent applies only to the Occupation Area identified on the attached Total Marine Services Limited drawing referenced as Northland Regional Council Plan Number 4826/1 and 4826/4**

104. New condition to be included:

The preparation or smoothing of vessel hulls including removal or smoothing of antifouling shall not be undertaken in the consent area. The preparation or smoothing of vessel or facility superstructure using a sanding device shall not be undertaken unless dust collection apparatus that is operating effectively is attached to the device.

105. Condition 73 has been amended as follows:

²⁵ NRC resource consent reference: CON20060791410-15

*The Consent Holder's operations shall not give rise to any dust, overspray, or odour at or beyond the site **Boatyard Discharge area** boundary, ~~which in the opinion of a Monitoring Officer of the council is offensive or objectionable.~~*

106. Condition 77 has been amended as follows:

The Consent Holder shall, on a daily basis, keep records of all occasions when water abrasive blasting and spray coating activities are undertaken. These records shall be made available to the council's assigned monitoring officer on written request and shall include the:

- (a) ~~Type and quantity of abrasive used;~~*
- (b) ~~Item(s) being blasted and/or spray coated;~~*
- (c) ~~Method of abrasive blasting used;~~*
- (d) ~~Location at which abrasive blasting and/or spray coating occurred;~~*
- (e) **Date and time (Hours) of operation each day, including a record of the wind speed and direction at the commencement and conclusion of works on each day;***
- (f) ~~Number of blasting and/or spray coating units being used; and~~*
- (g) ~~Types and volumes of coating materials being applied.~~*

107. In order to ensure that the stormwater and wastewater from the proposed activity are kept completely separate, condition 78 has been amended as follows:

High and low pressure water blasting and wet abrasive blasting of vessel hulls shall be confined to: ~~bunded or sealed areas where water containing contaminants are diverted to the a collection, settlement and filtration system for immediate pumping to a trade waste disposal system.~~

- (a) Bunded or sealed areas; or***
- (b) Facilities where water containing contaminants is diverted to a collection facility for immediate pumping to a waste containment facility on land for storage prior to offsite disposal; or***
- (c) To a trade waste disposal system.***

CONCLUSION

108. Having carefully reviewed the evidence presented at the hearing along with the application amendments, further information provided by the Applicant and sampling information provided by NRC staff post hearing, I have amended my recommendation on the applications as follows:

- Applications for resource consents be granted for the existing authorised slipway, dinghy ramp, workboat mooring and dinghy pull and timber and stone seawalls, subject to the recommended conditions appended to this addendum.
- Applications for resource consents be granted for discharge to air within the CMA, discharge to air on land, discharge to land and discharge of stormwater to the CMA, subject to the recommended conditions appended to this addendum.

- Applications for resource consents be granted for the demolition of the existing jetty, proposed replacement jetty facility (inclusive of a fixed jetty, jetty abutment, gangway, working berths and two marina berths), slipway refurbishment, extended stormwater drains, extension to exclusive occupation area and capital and maintenance dredging as far it relates to providing for the jetty berths and an approach channel to the slipway and to the jetty and marina facility, subject to the recommended conditions appended to this addendum.
 - Applications for resource consents be declined for the mudcrete grid and discharge of washdown water to the CMA.
109. I have made recommendations to refine those conditions to, potentially make these more workable and, in cases, enforceable for all concerned. I am happy to provide further clarification of the above matters at the reconvened hearing if required.
110. It is important to note that due to the time constraints in providing this addendum, the NRC plans referred to in the revised recommended conditions (Appendix 1) have not yet been amended to reflect my recommendation (removal of mudcrete grid and relocation of locked gates). It is recommended that this be completed once the Committee has made its decision on the applications.



Melanie Donaghy
Consultant Reporting Planner

1st August 2018

APPENDIX 1

Revised Recommended Consent Conditions

Revised Consent Conditions as at 1st August 2018

RECOMMENDATION

APP.039650.01.01 **Notified New
Notified Replacement**

**DOUG SCHMUCK, C/- DOUG'S OPUA BOAT YARD, 1 RICHARDSON STREET,
OPUA 0200**

To carry out the following activities associated with Doug's Opuia Boat Yard at Walls Bay, Ōpuia, Bay of Islands at and about location co-ordinates 1701505E 6091855N.

Note: All location co-ordinates in this document refer to Geodetic Datum 2000, New Zealand Transverse Mercator Projection.

Coastal Permits:

- AUT.039650.01.01** Place, use and occupy space in the coastal marine area with a jetty and marina facility (including fixed jetty, gangway, pontoon and piles, associated services, security gate lighting, signage and hoardings ~~and two mudcrete grids~~.
- AUT.039650.02.01** Place use and occupy space in the coastal marine area with a refurbished slipway (including turning block and associated cabling).
- AUT.039650.03.01** Occupy space in the coastal marine area to the exclusion of others.
- AUT.039650.04.01** Use a slipway and a jetty facility (inclusive of ~~three~~ work berth areas) for the purposes of vessel maintenance and chartering, and use two berths associated with the jetty facility pontoon as a marina.
- AUT.039650.05.01** ~~Place use~~ **Use** and occupy space in the coastal marine area with a ~~new seawall and~~ existing seawalls (inclusive of existing reclamation associated with ~~an existing~~ **the seawalls**).
- AUT.039650.06.01** Use and occupy space in the coastal marine area with a dinghy ramp.
- AUT.039650.07.01** Use and occupy space in the coastal marine area with stormwater culverts.
- AUT.039650.08.01** Use and occupy space with a workboat mooring and associated dinghy pull.
- AUT.039650.09.01** Disturb the land the in the coastal marine area during demolition and removal of unwanted structures, jetty facility construction **and** slipway refurbishment ~~and seawall construction~~.
- AUT.039650.10.01** Capital dredging adjacent to a slipway, and jetty and marina facility, to form ~~five~~ all-tide berths, ~~two mudcrete grids~~ and an approach channel to the slipway and **to the** jetty and marina facility.

AUT.039650.11.01 Maintenance dredging of vessel berths, ~~mudcrete grids~~ and an approach channel to the slipway and jetty and marina facility.

Discharge Permits:

AUT.039650.12.01 ~~Discharge of washdown water to the coastal marine area on the mudcrete grids.~~

AUT.039650.13.01 Discharge contaminants to air in the coastal marine area from vessel maintenance activities.

AUT.039650.14.01 Discharge contaminants to air from vessel maintenance activities.

AUT.039650.15.01 Discharge contaminants to land from vessel maintenance activities.

AUT.039650.16.01 Discharge treated stormwater to the coastal marine area.

Land Use Consents:

AUT.039650.17.01 To ~~place and~~ use those portions of a seawall located above Mean High Water Springs.

Land Use Consents (Issued under Transfer of Functions, Powers and Duties from the Far North District Council):

AUT.039650.18.01 To ~~place and~~ use those portions of a dinghy ramp located above Mean High Water Springs.

AUT.039650.19.01 To place and use those portions of a jetty facility located above Mean High Water Springs.

Subject to the following conditions:

General Conditions

1 These consents apply only to the structures, facilities, dredging area **and** occupation area identified on the **attached** Total Marine Services Limited drawings referenced as Northland Regional Council Plan Numbers **4826/1, 4826/3, 4826/4, 4826/5 and 4826/6** and the boat yard area **and Walls Bay Esplanade Reserve areas** identified on the **attached Total Marine Services Limited drawing referenced as** Northland Regional Council Plan Number **4826/2 and 4826/4**.

2 The council's assigned monitoring officer shall be notified in writing of the date that the demolition, construction and/or maintenance works, and capital dredging and each maintenance dredging operation is intended to commence, at least two weeks prior to the works or dredging operations commencing on each occasion. The Consent Holder shall arrange for a site meeting between the Consent Holder's contractor and the council's assigned monitoring officer. No works shall commence until the council's assigned monitoring officer has completed the site meeting.

Advice Note: *Notification of the commencement of works may be made by email to mailroom@nrc.govt.nz.*

3 As part of the written notification required by Condition 2, the Consent Holder shall also provide to the council's assigned monitoring officer written certification from a suitably qualified and experienced person that all plant and equipment entering the coastal marine area associated with the exercise of these consents are free from unwanted or risk marine species.

- 4 All structures and facilities covered by these consents shall be maintained in good order and repair.
- 5 The coastal marine area shall be kept free of debris resulting from the activities authorised by these consents.
- 6 Noise levels associated with the exercise of these consents shall not exceed those set out in Schedule 1, **attached**.
- 7 The Consent Holder shall submit an updated Management Plan to the council's Compliance Manager, for certification, within three months of the date of commencement of these consents. The Management Plan shall cover all aspects of:
- (a) The operation and maintenance of the jetty and marina facility, including the ~~mudcrete grids~~, working berths and marina berths;
 - (b) The operation and maintenance of the slipway;
 - (c) The capital and maintenance dredging, including appropriate sediment controls **during the works**; and ~~the protection of the existing shellfish bed~~;
 - (d) Measures to avoid the discharge of contaminants to the coastal ~~marine area~~ **waters during maintenance activities on or adjacent to the jetty and marina facility**;
 - (e) The operation and maintenance of the wash water treatment system, **including as-built plans of the treatment system**;
 - (f) The operation and maintenance of the stormwater treatment system, **including as-built plans of the treatment system**;
 - (g) Measures to minimise the discharge of contaminants to ground;
 - (h) Measures to minimise the emissions and any adverse effects on the environment from the discharges to air; and
 - (i) Contingency measures for unforeseen or emergency situations.
- 8 The operation and maintenance of the boatyard operations **and jetty and marina facility** shall be carried out in accordance with the approved Management Plan.
- 9 The Consent Holder shall review the Management Plan in consultation with the council at no greater than three yearly intervals. The reviewed Management Plan shall not take effect until its certification by the council's Compliance Manager.
- 10 A copy of these consents shall be provided to the person who is to carry out the works associated with these consents. A copy of the consent shall be held on site, and available for inspection by the public, during demolition, construction and/or maintenance and dredging.
- 11 In the event of archaeological sites or kōiwi being uncovered, activities in the vicinity of the discovery shall cease and the Consent Holder shall contact Heritage New Zealand Pouhere Taonga. Work shall not recommence in the area of the discovery until the relevant Heritage New Zealand Pouhere Taonga approval has been obtained.

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.*

- 12 The Consent Holder shall, for the purposes of adequately monitoring these consents as required under Section 35 of the Act, on becoming aware of any contaminant associated with the Consent Holder's operations escaping otherwise than in conformity with these consents:
- (a) Immediately take such action, or execute such work as may be necessary, to stop and/or contain such escape; and
 - (b) Immediately notify the council by telephone of an escape of contaminant; and
 - (c) Take all reasonable steps to remedy or mitigate any adverse effects on the environment resulting from the escape; and
 - (d) Report to the council's Compliance Manager in writing within one week on the cause of the escape of the contaminant and the steps taken or being taken to effectively control or prevent such escape.

For telephone notification during the council's opening hours, the council's assigned monitoring officer for these consents shall be contacted. If that person cannot be spoken to directly, or it is outside of the council's opening hours, then the Environmental Emergency Hotline shall 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.*

- 13 These consents shall lapse on 31 July 2023, unless before this date the consents have been given effect to.
- 14 Prior to the expiry or cancellation of these consents, the structures and other materials and refuse associated with these consents shall be removed from the consent area, and the consent area shall be restored to the satisfaction of the council, unless an application has been properly made to the council for the renewal of these consents or the activity is permitted by a rule in the Regional Plan.
- 15 The council may, in accordance with section 128 of the Resource Management Act 1991, serve notice on the Consent Holder of its intention to review the conditions annually during the month of July for any one or more of the following purposes:
- (a) To deal with any adverse effects on the environment that may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or
 - (b) To require the adoption of the best practicable option to remove or reduce any adverse effect on the environment; or
 - (c) To review discharge to air conditions relating to controls over timing of and equipment used for application of antifoulant and equipment to mitigate effects of air discharges.

The Consent Holder shall meet all reasonable costs of any such review.

Surrender of Consents

- 16 The Consent Holder shall surrender, in writing to the council, resource consents AUT.007914.01.03, AUT.007914.02.01, AUT.007914.03.01, AUT.007914.05.01, AUT.007914.06.01, AUT.007914.07.01, AUT.007914.08.01, AUT.007914.09.01, AUT.007914.16.01, AUT.007914.17.01, AUT.007914.18.01 and AUT.005359.01.01 within one month of the completion of the jetty and marina facility construction and slipway refurbishment works.

**AUT.039650.01.01, AUT.039650.02.01, AUT.039650.05.01, AUT.039650.06.01,
AUT.039650.07.01, AUT.039650.08.01, AUT.039650.17.01, AUT.039650.18.01,
AUT.039650.19.01 – Jetty and Marina Facility, Slipway, Seawalls, Dinghy Ramp,
Stormwater Culverts, Workboat Mooring and Dinghy Pull**

- 17 This consent applies only to the structures and facilities identified on the **attached** Total Marine Services Limited drawing referenced as Northland Regional Council Plan Number **4826/1**
- 18 The structures shall be constructed and maintained in ~~general~~ accordance with the **attached** Total Marine Services Limited drawings referenced as Northland Regional Council Plan Numbers **4826/1** and **4826/3**.
- 19 As part of the notification required by Condition 2, a Demolition and Construction Management Plan (DCMP) shall be submitted to the councils Compliance Manager for certification. As a minimum the DCMP shall include the following:
- (a) The expected duration (timing and staging) of the demolition and construction/refurbishment works including disposal sites for unsuitable material.
 - (b) Details of sediment controls (e.g. silt curtains/screens) to be established during the demolition and construction works, including during dredging for the slipway refurbishment.
 - (c) The commencement and completion dates for the implementation of the sediment controls.
 - (d) Measures to ensure protection of the shellfish bed **during the works**.
 - (e) Monitoring procedures to ensure adverse effects on water quality beyond works area in the CMA are minimised.
 - (f) Measures to prevent spillage of fuel, oil and similar contaminants.
 - (g) Contingency containment and clean-up provisions in the event of accidental spillage of hazardous substances.
 - (h) Means of ensuring contractor compliance with the DCMP.
 - (i) The name and contact telephone number of the person responsible for monitoring and maintaining all sediment control measures.

The Consent Holder shall undertake the activities authorised by this consent in accordance with the approved DCMP.

Advice Note: *The council's Compliance Manager's certification of the DCMP is in the nature of certifying that adoption of the DCMP is likely to result in compliance with the conditions of this consent. The Consent Holder is encouraged to discuss its proposed DCMP with council monitoring staff prior to finalising this plan.*

- 20 The seaward end of **the jetty and** marina **facility** pontoon, and the ~~northern and southern extent of the~~ seawalls shall be marked with the number **39650** in black lettering on a white background clearly displayed and in such a manner as to be clearly visible from the sea.

- 21 All rock or other materials used in the ~~construction~~ **repair** of the seawalls shall be free from material that could contaminate the adjacent foreshore. ~~The rock material shall be of sufficient size and density and placed so as to preclude its movement out of the seawall under the most extreme action the sea is likely to impart on it.~~ The ends of the seawalls shall be faired into the adjacent coastline in a manner such that end-effects arising from erosion do not occur. A geotextile cloth, effective in preventing escape of seawall core fill material to the coastal marine area through the seawall, shall form part of the construction.
- 22 Sand, shell or gravel from the foreshore adjacent to the consent area shall not be used in the ~~construction of, or any repair to, or maintenance of~~ **the any new** seawalls.
- 23 All vehicles or equipment entering the coastal marine area associated with the exercise of these consents shall be in good state of repair and free of any leaks e.g. oil, diesel etc.
- 24 An oil spill kit, appropriate to the plant and equipment being used, shall be provided and maintained on site during demolition, construction or maintenance works.
- 25 Works associated with demolition construction and or maintenance of the structures and facilities shall only be carried out between 7.00 a.m. and sunset or 6.00 p.m., whichever occurs earlier, and only on days other than Sundays and public holidays.
- 26 The exercise of ~~this~~ **these** consents shall not result in any conspicuous oil or grease film, scums or foams, floatable or suspended materials, **or a reduction in natural visual clarity of more than 20%**, or emissions of objectionable odour in the coastal water area, as measured at any point 10 metres from the facilities during demolition, construction or maintenance of the facilities.
- 27 Immediately upon completion of the installation of the jetty and marina facility structures (and associated capital dredging) the Consent Holder shall notify the following organisations in writing of the installation of the facilities. Evidence of this notification shall be provided to the council's assigned monitoring officer.

Hydrographic Surveyor
Land Information New Zealand
PO Box 5501
Wellington 6145

The Maritime Safety Inspector
Maritime New Zealand
PO Box 195
Ruakākā 0151

Far North District Council
Private Bag 752
Kaikohe 0440

The Consent Holder shall include a scale plan of the completed works with the notification.

- 28 The Consent Holder shall have the structural integrity of the jetty and marina facility and slipway structures inspected and reported on by a Chartered Professional (Structural) Engineer. The first inspection shall be undertaken prior to July 2029 and the **jetty and marina facility** structures shall be re-inspected at five yearly intervals prior to the month of July in 2034, 2039, 2044 and 2049 with a final inspection undertaken prior to 31 January 2053, being six months before the expiry date of this consent. An inspection report from the Chartered Professional Engineer shall be provided to the council's assigned monitoring officer within two weeks of completion of the inspection. The inspection report shall identify any maintenance that is required, the timeframe within which this maintenance is required to be carried out and shall confirm, or otherwise, the ongoing structural integrity and security of the structures.

- 29 The Consent Holder shall carry out all the maintenance required as a result of the inspections undertaken in accordance with Condition 28 within the timeframe(s) prescribed in the inspections report. The Consent Holder shall notify the council's assigned monitoring officer as soon as the maintenance works have been completed on each occasion.
- 30 In the event of failure or loss of structural integrity of any part of the jetty and marina ~~facility structures or facilities~~ covered by this consent, the Consent Holder shall immediately:
- (a) Retrieve all affected structure elements and associated debris that might escape from the marina and dispose of these on land where they cannot escape to the coastal marine area; and
 - (b) Advise the Regional Harbourmaster for Northland and the council's Compliance Manager of the event and the steps being taken to retrieve and dispose of the affected structure facility elements and debris.

Advice Note: *The purpose of this condition is to avoid navigation safety being compromised by floating debris and avoid contamination of the coastal marine area.*

AUT.039650.03.01 – Occupy Space in the CMA to Exclusion of Others

- 31 The area of exclusive occupation, over which the Consent Holder may exercise control of access and use, are limited to the Occupation Area identified on the Total Marine Services Limited drawing referenced as Northland Regional Council Plan Number **4826/1**, except that the Consent Holder shall not limit **public** access to and reasonable use of:
- (c) The dinghy ramp and access on to the intertidal beach on the southern side of the slipway; and,
 - (d) The jetty facility and marina **facility** by the pedestrian public during daylight hours by arrangement with the jetty facility and marina management. Signage shall be erected on the jetty facility gateway to advise the public of the availability of the public access.

AUT.039650.04.01 – Use of the Slipway, Jetty and Marina Facility and Mudcrete Grids

- 32 Maintenance of vessels and structures within the consent area shall not occur outside of the hours 0700-2000 Monday to Friday and 0800-2000 Saturday, Sunday and Public Holidays except in emergencies which directly involve the safety of people or vessels.
- 33 ~~The exercise of this consent and any activity associated with the operation and use of slipway, jetty and marina facility and mudcrete grids shall not result in any of the following effects on coastal water quality, as measured at any point 10 metres from the facilities:~~

	Standard
Natural visual clarity	Not reduced more than 20%.
Oil/grease film, scum, foam, odour	No conspicuous oil or grease film, scums or foams, floatable or suspended materials, or emissions of objectionable odour.
Aquatic Life	No destruction of natural aquatic life by reason of a concentration of toxic substances.
Total Copper	Maximum concentration of 0.0013 mg/L.
Total Lead	Maximum concentration of 0.0044 mg/L.
Total Zinc	Maximum concentration of 0.0150 mg/L.

34 The faecal coliform count, as sampled at any point within or adjacent to the jetty and marina facility, shall be less than 150/100 ml. If this test is failed, then the median result of samples taken at each sampling site as a result of four subsequent sampling events within a 30 day period shall be less than 150/100 ml and the 80%ile less than 600/100 ml.

Source: ANZEEC 2000 Guidelines: 95% specie level of protection for slightly-moderately disturbed systems.

35 Concentrations of metals in seabed sediments adjacent **as measured at any point 10 metres from** the facilities shall not exceed the following:

Metal	Limit in Milligrams per Kilogram (dry weight)
Copper	65
Lead	50
Zinc	200

36 The Consent Holder shall not allow any vessel to use any marina berth for overnight accommodation, unless either:

- (a) The vessel is equipped with a sewage treatment system which is specified in Schedule 5 and 7, or is compliant with Schedule 6 of the Resource Management (Marine Pollution) Regulations 1998 and which is installed, maintained, and operated in accordance with the manufacturer's instructions; or
- (b) It is equipped with a sewage holding tank that has an effective outlet sealing device installed to prevent sewage discharges, this device remaining activated in the sealed state or position at all times while the vessel is moored; or
- (c) The vessels sewage holding tank(s) have been sealed by the Consent Holder to prevent use whilst the vessel is used for accommodation at the berth.

37 The Consent Holder shall prohibit berth holders, as a condition of berthage, from discharging wastes (e.g. **untreated** sewage, ~~greywater~~, oil, contaminated bilge water) into coastal waters within or adjacent to the jetty and marina facility.

38 The ~~three~~ working berths associated with the jetty and marina facility shall not be used as a marina.

~~39 Activities on the mudcrete grids shall be limited to:~~

- ~~(f) Inspection of vessel hulls;~~
- ~~(g) Removal of micro-fouling marine growth, being slimes and/or films, from vessel hulls by wet wiping with 'soft tools' such as cloths, squeegees or wiper systems, sponges, soft brushes or other non-abrasive methods;~~
- ~~(h) The cleaning of vessel hulls using low pressure high volume water.~~
- ~~(i) Removal of marine growth (macro-fouling) from propellers, drive shafts etc and sea chests using hand tools. All material removed shall be contained (e.g. in **buckets, on tarpaulins or drop cloths**) and disposed of outside of the coastal marine area; and~~
- ~~(j) Minor repairs to vessels involving no discharge of contaminants into coastal waters or onto the seabed.~~

~~40 The following activities are prohibited on the grid:~~

- ~~(a) The discharge of bilge material from boats and associated 'flushing' of bilges;~~
- ~~(b) The cleaning of hulls using high pressure water abrasive blasters or hard brushes, scraping and sanding using power tools;~~
- ~~(c) The removal of marine growth (macro-fouling) from hulls using hand tools or power tools;~~
- ~~(d) The spot painting and re-antifouling of boat hulls; and~~
- ~~(e) The cleaning of hulls of vessels that have arrived from overseas and that have not been cleaned elsewhere in New Zealand since their arrival.~~

~~41 All solids, and sludge **and liquids**, removed from vessels using the mudcrete grids or from the cleaning of the grids shall be disposed of at an off-site facility that is authorised to accept such wastes.~~

~~**Advice Note:** *As far as is practicable, the contaminated liquids generated during wet wiping/cleaning activities and washdown shall be collected, and disposed of into the Ōpua municipal sewage system.*~~

~~42 Signs shall be erected and maintained on the jetty **and marina** facility adjacent to the mudcrete grids advising of the restrictions on activities at the grids.~~

~~43 The Consent Holder shall maintain accurate records of the vessels using the grids including details of:~~

- ~~(a) Vessel name and owners name including contact details;~~
- ~~(b) Date of grid use and duration of use of grid;~~
- ~~(c) Length and beam of the vessel;~~
- ~~(d) Details of activity being undertaken on the grid and any method used to contain potential discharge; and~~
- ~~(e) Age and type of the antifouling coating used on the vessel.~~

~~The Consent Holder shall make the grid use records available to the council's Compliance Manager on request and shall submit an annual summary report of grid use to the council's assigned monitoring officer by 31 July each year.~~

~~**Advice Note:** *The details of the type of antifouling used on the vessel may be identified as either:*~~

- ~~(a) The proprietary name of the antifouling paint used e.g. "Altex No.5", "Antifouling Multi 665" etc.; or~~
- ~~(b) Soluble matrix, controlled depletion polymer, or ablative antifouling;~~
- ~~(c) Insoluble matrix, contact leaching, long life or diffusion anti fouling coating;~~
- ~~(d) Self-polishing copolymer antifouling coating;~~
- ~~(e) Metallic antifouling coating; and~~
- ~~(f) Biocide free coatings.~~

~~44 Monitoring and testing of water and sediment quality in the vicinity of the facilities will be carried out by the council. Various elements of the approved monitoring and testing programme may be carried out by the Consent Holder with the agreement of the council's Compliance Manager.~~

- 45 The testing programme associated with the monitoring shall generally follow that set out in **attached** Schedule 2. The testing programme may, upon consultation between the council's Compliance Manager and the Consent Holder, be amended, subject to the agreement of the council's Compliance Manager.

AUT.039650.09.01 and AUT.039650.10.01 – Disturb Foreshore during Demolition Construction and Maintenance of a Jetty and Marina Facility and Associated Structures and During Dredging

- 46 Prior to the commencement of demolition, construction and dredging works and before the site meeting required by Condition 2, the northern extent of the shellfish bed on the intertidal beach south of the slipway and the Occupation Area identified on the Total Marine Services Limited drawing referenced as Northland Regional Council Plan Number **4826/1** shall be determined and generally marked with white survey pegs driven into the foreshore. **The pegs shall be removed upon completion of the dredging works.**
- 47 Foreshore disturbance from demolition, construction and dredging activities authorised by these consents shall avoid disturbance of the shellfish beds **located** on the intertidal beach outside of the Occupation Area identified on Northland Regional Council Plan Number **4826/1**

AUT.039650.10.01 and AUT.039650.11.01 – Capital and Maintenance Dredging

- 48 A copy of these consents shall be provided to the person who is to carry out the works.
- 49 No dredging associated with these consents shall commence until a Dredging and Mooring Management Plan has been submitted to the councils Compliance Manager for certification. The Dredging and Mooring Management Plan shall be developed in consultation with the Regional Harbourmaster for Northland, and contain written direction of the Harbourmaster to authorise the movement of moorings and their attached vessels that are affected by the proposed dredging. The removal and relocation of moorings shall be undertaken by a mooring contractor approved by the Harbourmaster.
- 50 Dredging operations shall be undertaken in accordance with the certified dredging and Moorings Management Plan.
- 51 Dredging shall be confined to the dredging area identified on the **attached** Total Marine Services Limited drawings referenced as Northland Regional Council Plan Numbers **4826/5 and 4826/6**. Except that the batter slope on the southern side of the dredging area shall not extend on to the intertidal beach containing shellfish beds past the southern boundary of the Occupation Area identified on Northland Regional Council Plan Number **4826/1**.
- 52 The depth of capital dredging and any subsequent maintenance dredging shall not exceed 2 metres below chart datum.
- ~~53 The volume of material removed during maintenance dredging shall not exceed 500 cubic metres on each occasion such dredging takes place.~~
- 54 Maintenance dredging shall not take place more frequently than once in any consecutive 12 month period.
- 55 All dredged material shall be disposed of on land at a location authorised to take such material.

- 56 The council's assigned monitoring officer shall be notified in writing as soon as capital dredging is completed, and on completion of each maintenance dredging operation.
- 57 No discharge of wastes (e.g. sewage, oil, bilge water) shall occur from any vessel associated with the exercise of these consents.
- 58 Dredging works shall only be carried out between 1 March and 30 ~~November~~ **September**.
- 59 All dredged spoil shall be fully contained whilst being transported to the disposal site.
- 60 Work associated with the dredging shall only be carried out between sunrise and sunset, as defined in the New Zealand Nautical Almanac, and appropriate navigation signals shall be shown at all times during dredging activities.
- 61 The exercise of these consents shall not cause any of the following effects on the quality of the receiving waters, as measured at or beyond a 100 metre radius from the dredger:
- (a) The visual clarity, as measured using a black disk or Secchi disk, shall not be reduced by more than 33% of the background visual clarity at the time of measurement;
 - (b) The turbidity of the water (Nephelometric Turbidity Units (NTU)) shall not be increased by more than 33% of the background turbidity at the time of measurement;
 - (c) The Total Suspended Solids shall not exceed 40 grams per cubic metre above the background measurement;
 - (d) The production of any conspicuous oil or grease film, scums or foams, or floatable or suspended materials, or emissions of objectionable odour; and
 - (e) The destruction of natural aquatic life by reason of a concentration of toxic substances.
- 62 Monitoring of dredging shall be undertaken in accordance with the **attached** Schedule 3.

AUT.039650.12.01 – Discharge Washdown Water Containing Contaminants to the Coastal Marine Area

- ~~63 The discharges of hull washdown water authorised by this consent applies only to the area of the mudcrete grids identified on the Northland Regional Council Plan Numbers 4804/2 and 4804/4.~~
- ~~64 The discharge of vessel washdown water on to the mudcrete grids shall not result in any of the following effects on coastal water quality, as measured at any point 10 metres from the facilities:~~

	Standard
Natural visual clarity	Not reduced more than 20%.
Oil/grease film, scum, foam, odour	No conspicuous oil or grease film, scums or foams, floatable or suspended materials, or emissions of objectionable odour.
Aquatic Life	No destruction of natural aquatic life by reason of a concentration of toxic substances.
Total Copper	Maximum concentration of 0.0013 mg/L.
Total Lead	Maximum concentration of 0.0044 mg/L.
Total Zinc	Maximum concentration of 0.0150 mg/L.

65 Concentrations of metals in seabed sediments as measured at any point 10 metres from the facilities shall not exceed the following:

Metal	Limit in Milligrams per Kilogram (dry weight)
Copper	65
Lead	50
Zinc	200

AUT.039650.13.01 - Discharge Contaminants to Air in the Coastal Marine Area

66 Water blasting or washdown using high volume water shall not be undertaken on the grids. As far as is practicable washdown liquids shall be contained and disposed of to trade waste system. **The discharges to air authorised by this consent applies only to the Occupation Area identified on the attached Total Marine Services Limited drawing referenced as Northland Regional Council Plan Number 4826/1 and 4826/4.**

67 **The preparation or smoothing of vessel hulls including removal or smoothing of antifouling shall not be undertaken in the consent area. The preparation or smoothing of vessel or facility superstructure using a sanding device shall not be undertaken unless dust collection apparatus that is operating effectively is attached to the device.**

~~AUT.039650.13.04, AUT.039650.14.01 – Discharge Contaminants to Air in the Coastal Marine Area and Discharge Contaminants to Air from Land~~

68 The discharges to air authorised by these **this** consents apply**ies** only to the Occupation Area and the Boatyard Discharge area identified on the **attached Total Marine Services Limited drawing referenced as** Northland Regional Council Plan Numbers **4826/1** and **4826/4**. **This consent does not authorise dry abrasive blasting activities.**

69 The preparation or smoothing of vessel hulls or superstructure including removal or smoothing of antifouling using a sanding device without an attached dust collection shall not be undertaken within the consent area.

70 Electric sanding and spray coating operations shall be conducted with regard to wind direction and wind strength to prevent or minimise any adverse effects on the environment. **Sanding and grinding operations shall only be conducted when the wind speed is between 0.5 m/s and 5 m/s (as a 60 second average). The application of antifouling and paint shall only be undertaken when the windspeed is greater than 0.5 m/s and when apparent wind on the slipway is from the northeast to south (wind is blowing up the slipway through an angle of 45 to 170 degrees). The Consent Holder shall maintain equipment adjacent to the boatyard boundary that displays current windspeed and direction, this equipment and information display shall be visible from the reserve.**

71 All spray application of antifouling paint shall comply with Environmental Protection Agency rules including setting up of a controlled work area around the vessel concerned.

72 **Temporary** Screens shall be erected around blasting areas at all times during high pressure water blasting to mitigate effects of spray drift.

- 73 All equipment used to avoid or mitigate any adverse effects on the environment from emissions to air shall be maintained in good working order.
- 74 The Consent Holder's operations shall not give rise to any dust, overspray, or odour at or beyond the site **Boatyard Discharge area** boundary, ~~which in the opinion of a Monitoring Officer of the council is offensive or objectionable.~~
- ~~75 Dry abrasive blasting operations shall only be carried out when the object's size, shape or weight prevents it being practicably transported and blasted in an abrasive blasting booth for which appropriate resource consents are held.~~
- ~~76 All dry abrasive blasting shall be undertaken in a fully enclosed working area that is, where practicable, sealed and ventilated through an air cleaning system. Discharges from the air cleaning system shall be minimised as far as is practicable.~~
- ~~77 All abrasive used for abrasive blasting shall contain less than 2% by dry weight free silica.~~
- 78 The Consent Holder shall, on a daily basis, keep records of all occasions when **water** abrasive blasting and spray coating activities are undertaken. These records shall be made available to the council's assigned monitoring officer on written request and shall include the:
- (h) ~~Type and quantity of abrasive used;~~
 - (i) ~~Item(s) being blasted and/or spray coated;~~
 - (j) ~~Method of abrasive blasting used;~~
 - (k) ~~Location at which abrasive blasting and/or spray coating occurred;~~
 - (l) **Date and time (Hours) of operation each day, including a record of the wind speed and direction at the commencement and conclusion of works on each day;**
 - (m) ~~Number of blasting and/or spray coating units being used; and~~
 - (n) ~~Types and volumes of coating materials being applied.~~

AUT.039650.15.01 – Discharge to Land

- 79 High and low pressure water blasting and wet abrasive blasting of vessel hulls shall be confined to: ~~bunded or sealed areas where water containing contaminants are diverted to the a collection, settlement and filtration system for immediate pumping to a trade waste disposal system.~~
- (a) Bunded or sealed areas; or**
- (b) Facilities where water containing contaminants is diverted to a collection facility for immediate pumping to a waste containment facility on land for storage prior to offsite disposal; or**
- (c) To a trade waste disposal system.**
- 80 All visible waste, including discoloured water, shall be hosed from the washdown pad immediately after completion of any water blasting operation. The collection system shall be sufficiently flushed following pressure blasting activities to ensure that contaminated washdown water is not disposed of in coastal waters via the stormwater network. Vessel washdown activities shall not be undertaken during heavy rainfall events that may lead to washdown water entering the stormwater network (i.e. combined volumes of washdown water and stormwater that exceed the capacity of the trade waste disposal pump).

- 81 All work areas shall be bunded, to prevent debris from vessel maintenance entering water bodies. The bunding shall be sufficiently impermeable to prevent leakage of contaminants.
- 82 All waste material, including antifouling residue, paint flakes and marine growth, removed from vessel hulls or generated from the cleaning or maintenance of vessels, shall be disposed of at an off-site facility that is authorised to accept such wastes. The Consent Holder shall provide evidence by way of tracking verification (i.e. receipts) of the disposal location, ~~if requested by~~ **upon written request** from the council's assigned monitoring officer.
- 83 ~~As far as is practicable,~~ Washdown areas and work areas used for dry or wet sanding, spray painting and other boat maintenance activities shall be cleared of accumulations of residues, paint flakes and any other debris at the end of each work session, or by the end of each working day, whichever occurs first.
- 84 Wet sanding shall be confined to bunded and sealed areas. The area used for wet sanding shall be bunded so stormwater from these areas is directed to the stormwater treatment system. Mats or other residue containment devices shall be placed beneath any hull being wet sanded to remove antifouling paint.

AUT.039650.16.01 –Discharge Treated Stormwater to the Coastal Marine Area

- 85 All stormwater from areas of land used for the maintenance of vessels shall be diverted to the stormwater treatment system for treatment prior to discharge to coastal waters.
- 86 The concentration of the contaminants in the stormwater discharge shall not exceed:
- (a) 20 grams per cubic metre of total petroleum hydrocarbons;
 - (b) 10 milligrams per cubic metre of total copper;
 - (c) 10 milligrams per cubic metre of total lead;
 - (d) 100 milligrams per cubic metre of total zinc; or
 - (e) 100 grams per cubic metre of suspended solids.
- 87 The discharge of stormwater shall not result in any of the following effects, as measured at or beyond a 20 metre radius from the stormwater outlets:
- (a) Cause the pH of the receiving water to fall outside of the range 6.5 to 9.
 - (b) Cause the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials in the receiving water.
 - (c) Cause any emission of objectionable odour in the receiving water.
 - (d) Cause any significant adverse effects on aquatic life or public health.
- 88 The stormwater treatment system, and all associated equipment, shall be adequately maintained so that it operates effectively at all times. The Consent Holder shall keep a written record of all maintenance carried out on the **stormwater** treatment system and shall supply a copy of this record to the council's assigned monitoring officer immediately on written request.

EXPIRY DATE:	AUT.039650.01.01	to	AUT.039650.11.01	31 JULY 2053
	AUT.039650.13.01	to	AUT.039650.16.01	31 JULY 2036
	AUT.039650.17.01	to	AUT.039650.19.01	31 JULY 2053





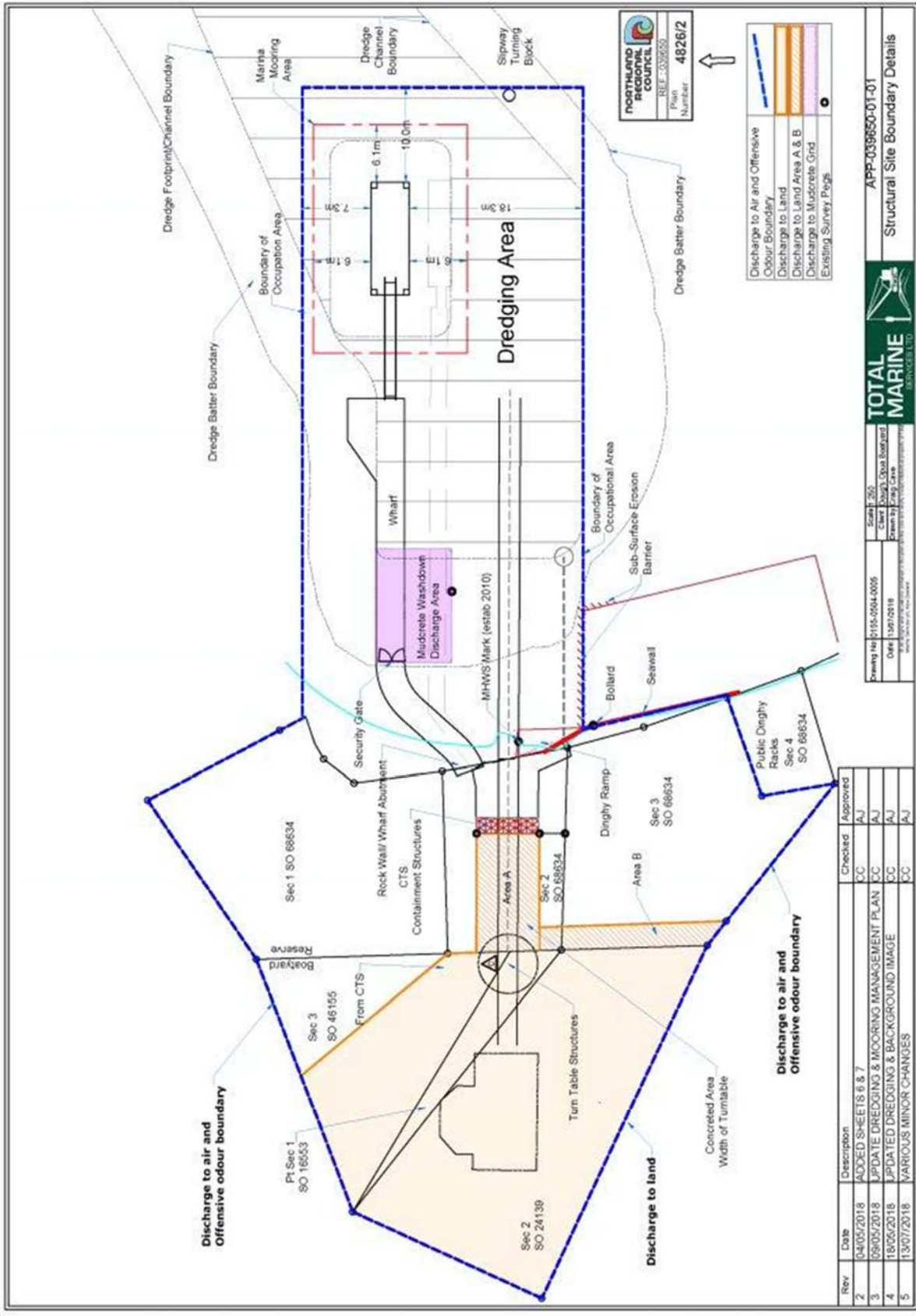
 REF: 039650
 Plan Number: 4826/1

Sheet No: 039650-0001	Sheet: 250	APP-039650-01-01
Date: 13/07/2018	Client: South Coast Bayfield	Structural Site Aerial Overlay
	Drawn by: Eng. Case	

Rev	Date	Description	Checked	Approved
2	04/05/2018	ADDED SHEETS 6 & 7	CC	AJ
3	09/05/2018	UPDATE DREDGING & MOORING MANAGEMENT PLAN	CC	AJ
4	18/05/2018	UPDATED DREDGING & BACKGROUND IMAGE	CC	AJ
5	13/07/2018	VARIOUS MINOR CHANGES	CC	AJ



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Rev	Date	Description	Checked	Approved
2	04/05/2018	ADDED SHEETS 6 & 7	CC	AJ
3	09/05/2018	UPDATE DREDGING & MOORING MANAGEMENT PLAN	CC	AJ
4	18/05/2018	UPDATE DREDGING & BACKGROUND IMAGE	CC	AJ
5	13/07/2018	VARIOUS MINOR CHANGES	CC	AJ

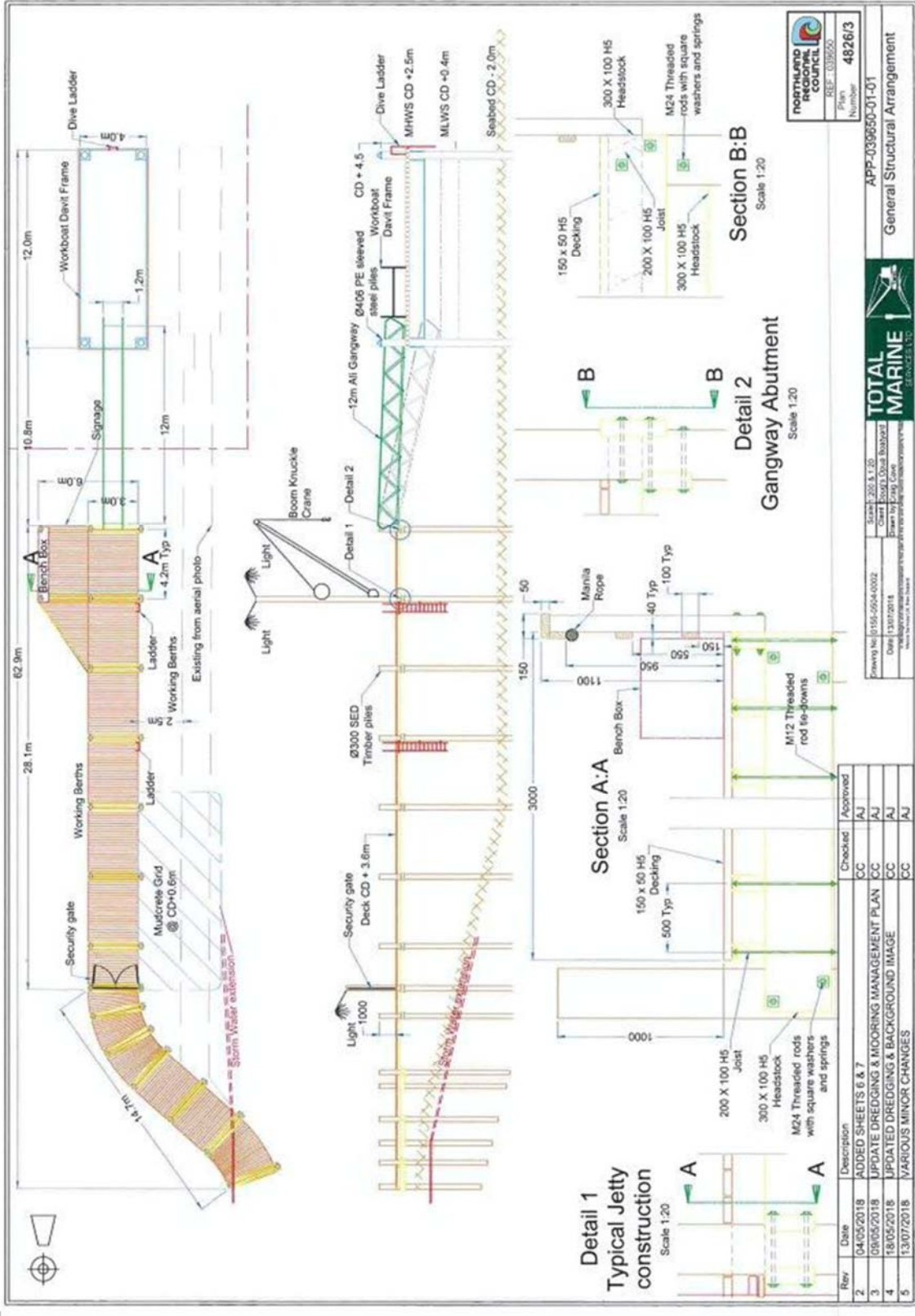
Project No: 15-004-005	Scale: 2:50
Date: 1/07/2018	Client: Dept's. Operations
Drawn by: Craig Crane	Checked by: [Blank]
Checked by: [Blank]	Drawn by: [Blank]

NORTHLAND REGIONAL COUNCIL
 REF: 039650
 Plan Number: 4826/2

APP-039650-01-01
Structural Site Boundary Details



	Discharge to Air and Offensive Odour Boundary
	Discharge to Land
	Discharge to Land Area A & B
	Discharge to Mudcrete Grid
	Existing Survey Pegs



NORTHLAND REGIONAL COUNCIL
 Plan REF: 039650-01-01
 Number 4826/3

APP-039650-01-01
 General Structural Arrangement



Drawn by: J. Long
 Checked by: J. Long
 Date: 13/07/2018
 Project: 039650-01-01

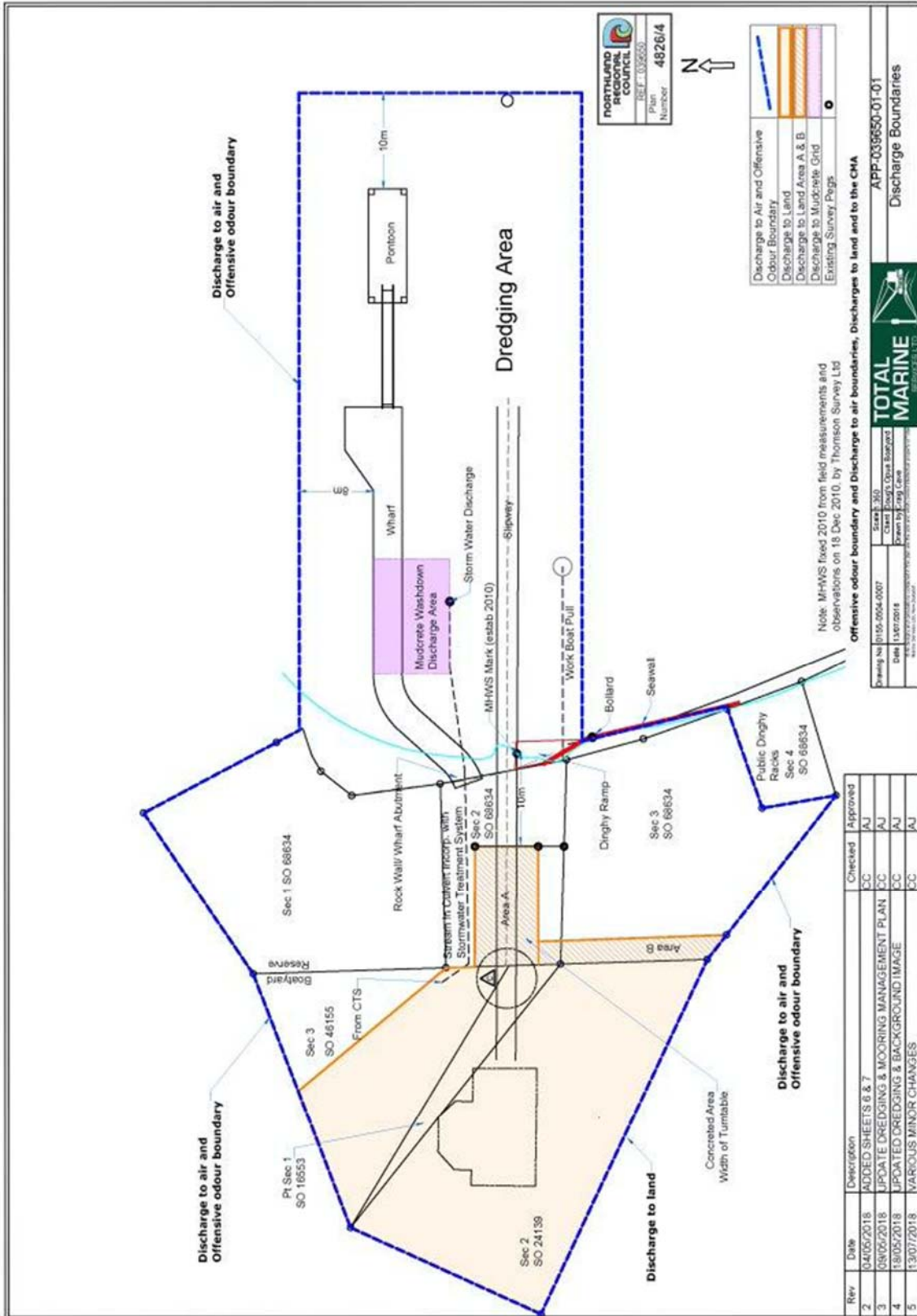
Rev	Date	Description	Checked	Approved
2	04/05/2018	ADDED SHEETS 6 & 7	CC	AJ
3	09/05/2018	UPDATE DREDGING & MOORING MANAGEMENT PLAN	CC	AJ
4	18/05/2018	UPDATED DREDGING & BACKGROUND IMAGE	CC	AJ
5	13/07/2018	VARIOUS MINOR CHANGES	CC	AJ

Detail 1
 Typical Jetty construction
 Scale 1:20

Section A:A
 Scale 1:20

Detail 2
 Gangway Abutment
 Scale 1:20

Section B:B
 Scale 1:20



NORTHLAND REGIONAL COUNCIL
 Plan Number: 4826/4
 Date: 10/05/2018

Discharge to Air and Offensive Odour Boundary	(Blue dashed line)
Discharge to Land	(Orange hatched area)
Discharge to Land Area A & B	(Yellow hatched area)
Discharge to Mudcrete Grid	(Pink hatched area)
Existing Survey Pegs	(Black circle)

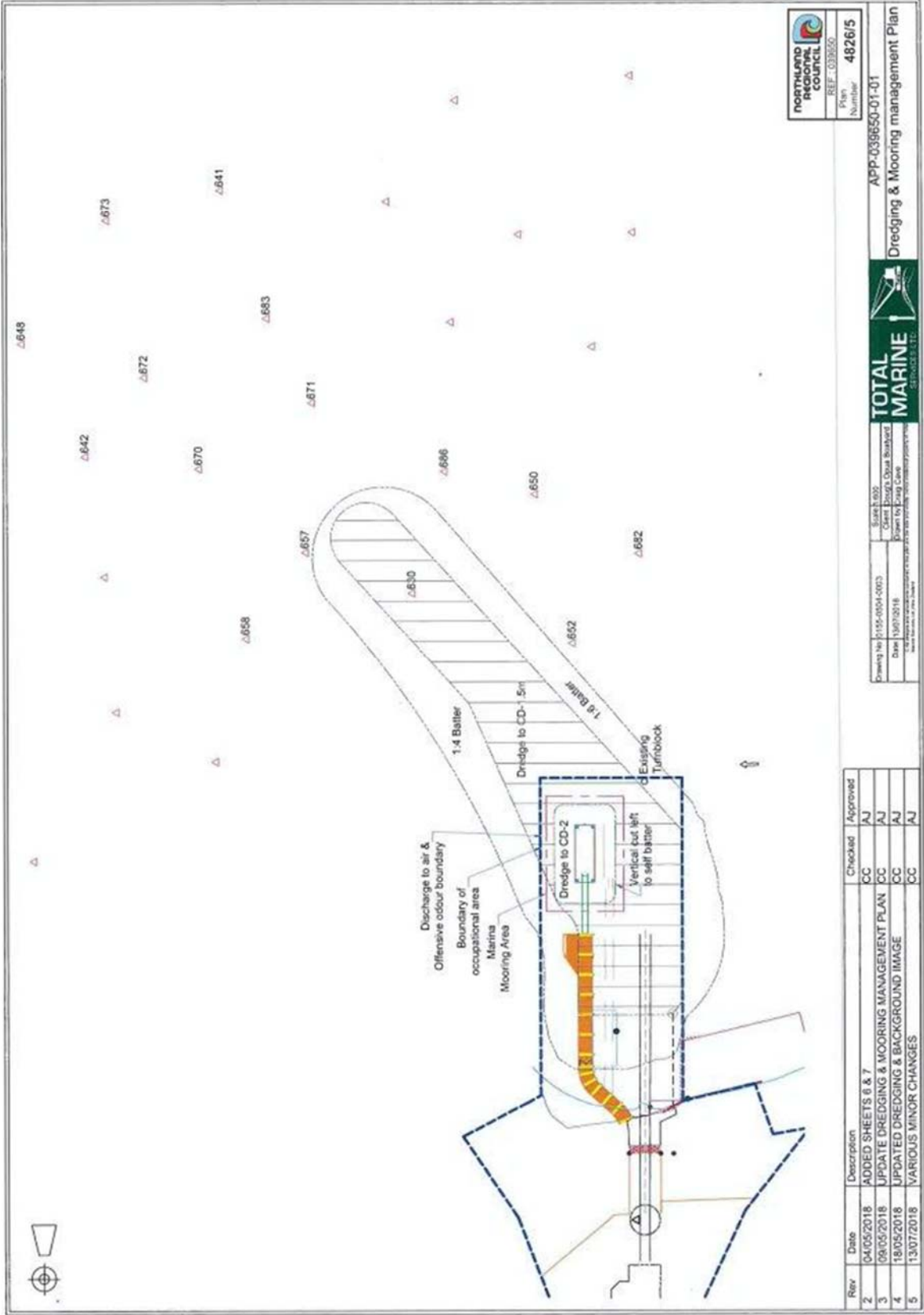
Note: MHWS fixed 2010 from field measurements and observations on 18 Dec 2010, by Thomson Survey Ltd

Rev	Date	Description	Checked	Approved
2	04/05/2018	ADDED SHEETS 6 & 7	CC	AJ
3	08/05/2018	UPDATE DREDGING & MOORING MANAGEMENT PLAN	CC	AJ
4	13/05/2018	UPDATED DREDGING & BACKGROUND IMAGE	CC	AJ
5	13/07/2018	VARIOUS MINOR CHANGES	CC	AJ

Project No	0115-0004-0007	Sheet No	260
Client	King's Quay Regional Council	Drawn by	Liz Cole
Scale	1:400	Checked by	John G. G. G.

TOTAL MARINE
CONSULTANTS LTD

APP-Q39650-01-01
 Discharge Boundaries



APP-039650-01-01
 Dredging & Mooring management Plan



Client: Energy, Opaq, Starburst
 Project: Energy Case
 Drawing No: 0155-0094-0003
 Date: 10/07/2018

Scale: 1:500
 Drawn by: Eng Case
 Checked by: [Name]

Rev	Date	Description	Checked	Approved
2	04/05/2018	ADDED SHEETS 6 & 7	CC	AJ
3	08/05/2018	UPDATE DREDGING & MOORING MANAGEMENT PLAN	CC	AJ
4	18/05/2018	UPDATED DREDGING & BACKGROUND IMAGE	CC	AJ
5	13/07/2018	VARIOUS MINOR CHANGES	CC	AJ



Total Inground Volume 4329.3 Cubic Metre
 Footprint Inground Volume 2515.6 Cubic Metre
 Total Area 4526.0 Square Metre

northland regional council
 REF: E09650
 Plan Number 4826/6

TOTAL MARINE
 27 JULY 2018

Client: BOB'S OYSTER BOATS
 Project: BOAT CAVE
 Drawing No: E196-0954-0004
 Date: 13/07/2018
 Scale: 1:500
 APP-039650-01-01
 Dredging Plan With NRC aerial overlay

Rev	Date	Description	Checked	Approved
2	04/05/2018	ADDED SHEETS 6 & 7	CC	AJ
3	09/05/2018	UPDATE DREDGING & MOORING MANAGEMENT PLAN	CC	AJ
4	18/05/2018	UPDATED DREDGING & BACKGROUND IMAGE	CC	AJ
5	13/07/2018	VARIOUS MINOR CHANGES	CC	AJ

SCHEDULE 1

ENVIRONMENTAL STANDARDS – NOISE

CONSTRUCTION NOISE

Based on Table 2, NZS 6803: 1999 “Acoustics – Construction Noise”, Standards New Zealand:

Time of Week	Typical Duration	Typical Duration (dBA)		Short Term Duration		Long Term Duration	
		L _{eg}	L _{max}	L _{eg}	L _{max}	L _{eg}	L _{max}
Weekdays	0630 – 0730	60	75	65	75	55	75
	0730 – 1800	75	90	80	95	70	85
Saturdays	0630 – 0730	45	75	45	75	45	75
	0730 – 1800	75	90	80	95	70	85

Construction Sound levels shall be measured in accordance with New Zealand Standard NZS 6803:1999 “Acoustics – Construction Noise”. Measurement shall be at any point on the line of Mean High Water Springs (MHWS) on the adjacent foreshore any point 100 metres from the jetty and marina facility.

Notes: 1 “Short-term” means construction work any one location for up to 14 calendar days.

“Typical duration” means construction work at any one location for more than 14 calendar days, but less than 20 weeks.

“Long-term” means construction work at any one location with a duration exceeding 20 weeks.

2 Noise levels L₁₀, L₉₅ and L_{max} are measured in dBA. Definitions are as follows:

- meter
- (a) dBA means the sound level obtained when using a sound level having its frequency response A-weighted. (See IEC 651);
 - (b) L_{max} means the maximum noise level (dBA) measured;
 - (c) L₉₅ means the noise level (dBA) equalled or exceeded for 95% of the measurement time;
 - (d) L₁₀ as for L₉₅ except that the percentage figure is 10%.

OPERATION NOISE

Noise emitted from any activity associated with the jetty and marina facility, when measured at the boundary of the zone, shall not exceed the following noise levels as measured at or within the boundary of any residential site not under the control of the consent holder:

<i>Time Period</i>	<i>Noise Limit</i>
<i>0700 hrs to 2200 hrs</i>	<i>50 dBA L₁₀</i>
<i>2200 hrs to 0700 hrs the following day</i>	<i>45 dBA L₁₀</i>
	<i>65 dBA L_{max}</i>

Operation Sound levels shall be measured in accordance with New Zealand Standard NZS 6801:2008 Measurement of Environmental Sound, and assessed in accordance with NZS 6802:2008 Acoustics – Environmental Noise.

SCHEDULE 2

TESTING PROGRAMME FOR WATER QUALITY

DURING OPERATION OF JETTY FACILITY AND MARINA

Testing will be carried out for Faecal Coliforms for compliance with the standard.

Up to four separate testing events for Faecal Coliforms may be taken annually, unless monitoring results indicate it is necessary to go to a 30 day sampling regime, as provided for in the conditions of consent.

Samples will be taken at no less than three sites within or adjacent to the jetty and marina facility, and at suitable control sites (upstream and downstream) the precise locations of which will be determined following consultation by council monitoring staff with the Consent Holder.

The testing will be carried out between 1 November and 1 April in the following year.

Sampling will be carried out at the same time for, Temperature, Salinity and Dissolved Oxygen.

STORMWATER DISCHARGE

The stormwater discharges will be sampled during a moderate rainfall event following an extended dry period.

TESTING FOR METALS IN SEABED SEDIMENTS

Testing for metals in seabed sediments at the stormwater discharge location, and adjacent to the mudcrete grids and within the boundary of the marina area will be carried out annually.

SCHEDULE 3

DREDGE MONITORING PROGRAMME

During dredging operations, daily inspections of the waters adjacent to the dredge excavation areas will be undertaken by the dredging contractor, or the Consent Holder's nominated agent, in order to identify any visually observable change in clarity (turbidity) of the receiving waters at or beyond 100 metres from the point of the dredging operations. Results of the daily inspections are to be recorded in a written log book by the Consent Holder, and submitted to the council's assigned monitoring officer weekly email.

Should the visual inspection indicate any change in clarity at or beyond 100 metres from the point of the dredging operations, then the Consent Holder will implement the following monitoring programme to assess compliance with the relevant conditions of this consent.

Clarity measurements, using black disc or Secchi disc methods are to be taken at the boundary of the down-current edge of the mixing zone within the area of changed clarity. The same measurements are to be taken at least 50 metres up-current from the dredging activity to be used as control measurements for comparison with the down-current effect measurements. Three measurements are to be undertaken at each upstream and downstream location and the median used to assess compliance with the water quality standards stated and identified in the consent. Results of this monitoring are to be reported to the council's assigned monitoring officer in writing within one week of the occurrence of monitoring.

APPENDIX 2

Expert Advice from Richard Griffiths, NRC Marine Research Specialist

From: Richard Griffiths

Sent: Friday, 27 July 2018 2:43 p.m.

To: Paul Maxwell <PaulM@nrc.govt.nz>

Cc: Ricky Eyre <rickye@nrc.govt.nz>

Subject: Review of 4SIGHT 'Ecological Assessment: Doug's Opuia Boatyard: Assessment of ecological effects for proposed dredging and structural works.'

Hi Paul

As per your request I have reviewed the 4SIGHT 'Ecological Assessment: Doug's Opuia Boatyard: Assessment of ecological effects for proposed dredging and structural works.'

Overall the sampling, analysis and scope of the report is appropriate for the scale of the activity that has been applied for. Here are my specific comments on the findings:

Section 5

5.2.1 Sediment dynamics

I agree with the conclusion that that in the context of the large quantities of sediment discharged from the Kawakawa and Waikare catchments the contribution from the proposed dredging will be small and short in duration. I agree with the recommendation on page 14 'that a silt curtain be deployed around the dredging plant for the duration of the dredging operation'.

5.2.2 Contaminants in sediments

The levels of heavy metals at site ISL, M and I3 are very high for Northland. These are much higher than background levels recorded in the wider Bay of Islands. With the exception of sites S1 and S2 and SC, all of the sites sampled are well above the levels recorded by Council's State of the Environment Monitoring in the Bay of Islands. Council's sediment monitoring showed that the highest copper concentrations in the Bay of Islands was 15mg/kg and the highest zinc concentration was 82

mg/kg [https://resources.nrc.govt.nz/upload/23554/BOI%20and%20Whangarei%20Sediment%20Report%202016%20\(Final\).pdf](https://resources.nrc.govt.nz/upload/23554/BOI%20and%20Whangarei%20Sediment%20Report%202016%20(Final).pdf)

The concentrations of metal contamination at sites ISL, M, I3 and S3 are at levels where you would expect to observe impacts on marine organisms and ecological communities.

I do not agree with the statement on page 14 that:

Given that Walls Bay has been the site of vessel haul-out, slipway and vessel maintenance activities since the 1960's and the site of a commercial boatyard since the 1970's it is likely that much of the contaminant load found in intertidal sediments is the result of those historical activities, and DOB is now likely to be only a small contributor to the overall potential contaminant load in the wider area.

Recent compliance monitoring of the facility shows that the concentrations of metals in the discharge water are high. These results suggest that the current activities at the facility are continuing to contribute to the high levels of metals in Walls Bay.

This is outside the scope of my expertise, but given the levels of contamination in the sediment, care may need to be taken when selecting the disposal site for dredged material. The disposal of this material may also require resource consent.

5.3 Effects on water quality

I broadly agree that as long as the operation is well managed and that a silt curtain is deployed, the effects are likely to be localised and of relatively short duration.

However, I recommend that a temporal restriction be placed on dredging activity. This was a key recommendation of a report by Cawthron Institute 'Review of Northland Regional Council's consent conditions for dredging' (Morrisey and Barter 2015). This report recommends a closed season for cockle and pipi spawning and settlement of October – January inclusive.

The area in question has high recreational values during the summer period, and users will have higher expectations of water clarity during the summer period.

5.4 Effects of subtidal and intertidal habitat and biota

5.4.1 Subtidal and intertidal infauna and epifauna

I agree that the taxa found within the footprint of the dredge area are common and widespread species in the Bay of Islands. I also agree that the area will be recolonised relatively quickly with a similar ecological community.

5.4.2 Intertidal shellfish bed

As per my comments above. I recommend that a closed season be included to provide safeguards for cockles and pipis. I strongly favour the inclusion of closed seasons in dredging consents as they provide protection to key species at the most vulnerable stages of their life cycle.

I question the need to install a subsurface erosion barrier. The beach platform itself appears to be relatively hard packed and stable. The beach is relatively sheltered and there are no visible signs of erosion. In Marsden Cove where a much larger channel has been dredged through an intertidal sand/shell habitat, there has been no slumping or erosion caused by the dredging on the adjacent beach. The installation of the barrier is likely to cause more disturbance to the beach and intertidal shellfish bed during construction and may have unintended consequences for the ongoing beach hydrodynamics.

Kind regards,

Richie

APPENDIX 3

Expert Advice from Paul Maxwell, NRC Coastal and Works Consents Manager

From: Paul Maxwell <PaulM@nrc.govt.nz>
Date: Friday, 27 July 2018 at 10:52 AM
To: Melanie Donaghy <melanie@mjdenvironmental.co.nz>
Subject: RE: Sub Surface Erosion Barrier

Re the subsurface erosion Barrier- Despite the issue of the structure not being notified as part of the application, which may preclude it even being considered. The applicant does not appear to have demonstrated a clear need for the subsurface erosion barrier or its efficacy for its intended purpose. A shallow sloping batter is preferred.

The cross section plan provided by total Marine refers to the barrier to be formed of spoil run (uncertain what that is – may be unstable) and shows it keyed in to the new ground level by 0.7 of a metres. The top of the dredge batters shown by the plan are north of the location of the barrier. It would be more appropriate to have a gentle batter and minimise the modification of the stable bed levels and introduction of additional structure (with uncertain effects) on to what is a stable beach profile. As marked up below.

The Total Marine Report says the purpose is to stabilise the shellfish bed and to prevent material building up on the slipway. The total marine report provides a limited analysis of how the structure will function and which indicates that the scouring arising from the structure will maintain the slipway free of material. This is a concern as it results in further modification of the natural cycling of sediments within the bay. The beach is currently in equilibrium and if the proposed activities are granted then there're should be provision for the beach to come to a natural equilibrium state over time.

The 4 sight report mentions the erosion barrier and its intended purpose and concludes ecological effects arising from its installation will be no more than minor. But Is silent on any potential effects arising over the longer term.

From: Paul Maxwell <PaulM@nrc.govt.nz>
Date: Monday, 30 July 2018 at 6:17 AM
To: Melanie Donaghy <melanie@mjdenvironmental.co.nz>
Subject: RE: MetOcean Solutions Ltd Report - Opuia Marina Stage 2 Dev

Hi Mel,

The modelling was undertaken for the Opuia Marina Stage 2 Development and presents a models and interpretation of water flows on a broader scale. The Modelling was undertaken by a reputable Company with a high level of expertise and experience in hydrodynamic modelling. The models provide an broad understanding of water flows within the dynamic confluence of the Waikare Inlet, the Kawakawa River and Veronica Channel however, the model does not provide detail at a resolution to understand potential sediment transport within Walls Bay and the vicinity of the jetty and Marina Facility. One can infer from the model presented that once suspended sediment from dredging activities is transported into the vicinity of the Veronica Channel it is highly likely that strong tidal flows will quickly entrain and disperse the suspended sediments.

APPENDIX 4

Discharge Compliance Correspondence from Ricky Eyre, NRC Coastal Monitoring Manager

From: Ricky Eyre <rickye@nrc.govt.nz>

Date: Friday, 27 July 2018 at 1:43 PM

To: Melanie Donaghy <melanie@mjdenvironmental.co.nz>

Subject: Latest sampling results from Doug's Boatyard

Hi Mel.

The following email provides comment to the last monitoring run on 20 June 2018 to aid your addendum to your s42A report.

The sampling was undertaken during a heavy rainfall event.

The sampling highlights particularly high levels of copper and zinc within the boatyard's stormwater, LOC.319833. Similar untreated levels are found at other boatyards.

The sampling run did not include a POD location to allow an assessment of treatment efficiency, though a comparison of the upstream site, LOC.310389 and the stream mouth, LOC.319836, suggests it is not operating effectively. The efficiency of the system has previously been assessed. It met the consent requirements for Total Suspended Solids, but not Copper and Zinc. I believe it would be a similar situation on this occasion.

The upstream result, before any inputs from the boatyard, exceeded the proposed copper limit (at POD). This suggests that the proposed limit may be unrealistic.

The results show high levels of copper with the receiving environment at the time of sampling. Though it was clear that the discharge from the boatyard had high levels of copper and zinc, it was not possible to label this "non-compliance" at the 10m mixing zone as the control was double the concentration for copper, and higher for zinc. This situation is not unique and highlights the importance of having the compliance point at POD to avoid effects of other contamination sources.

Another point I would like to make is ensure the stormwater system is clearly defined through a consent plan; with flow paths, collection/sump locations, treatment system, and compliance point. It should clearly show all stormwater from the yard entering the system at all times. The consent may wish to include a condition to require a sampling point, e.g. tap or access cover, after the treatment system to allow for clear access to the compliance point. The system as currently consented is not overly clear and this leads to confusion and ambiguity.

Hope this is helpful.



Ricky Eyre
Coastal Monitoring Manager, Regulatory Services
Northland Regional Council | Te Kaunihera ā rohe o Te Taitokerau

DDI 09 470 1258 M 027 476 7981

Please Quote File: REG.007914.10, ACT.126982

REYR:SQUA

12 July 2018

Douglas Craig Schmuck
1 Richardson Street
Opuia 0200

Dear Doug

**DISCHARGE OF TREATED BOAT WASHDOWN WATER
- RICHARDSON ST, OPUA. DISCHARGE OF STORMWATER TO THE CMA**

Council officers sampled the stormwater discharges from the boatyard on 20 June 2018, during a heavy rain event.

Samples were analysed for heavy metals, turbidity and total suspended sediments, and physical parameters were collected onsite.

The results are shown below and are compared to the consent limits for the existing consent and limits for your current application APP.039650.01.01 (on hold).

Whilst the compliance limit for copper was exceeded at the 10m mixing zone boundary, the results are inconclusive in terms of assessing compliance. The upstream site (310389) and the receiving environment control (319834) exceed the compliance value.

These results indicate the discharge was not having any noticeable effect on the receiving environment at the 10m mixing zone boundary.

The sampling did however indicate there were high levels of Copper and Zinc running off the site through the stormwater system, with levels of 2.2 g/m³ and 1.2 g/m³ respectively.

The sampling did not include a sample from the discharge of the treatment system, and therefore a direct assessment of the efficiency of the treatment system cannot be undertaken. That said, the results indicate there is a noticeable increase from the upstream site and the result exceeds the proposed compliance values for Copper, Lead, and Zinc. These results indicate the high levels of heavy metals from the site should be addressed through better site management, sealing of the workspace (to reduce input to stormwater system) or upgrading of the treatment system.

It is worth noting the upstream site also exceeds the proposed compliance limits and the appropriateness of this limit may wish to be reviewed.

Further sampling will be undertaken in the coming financial year to assess the effectiveness of the system during stormwater discharge events.

Yours faithfully



Ricky Eyre
Coastal Monitoring Manager

A1085376

Sample results

	Site 310389	Site 319833	Site 319836	Site 107735	Site 319834		
	Doug's Opua Boatyard at Upstream of discharge	Slipway Sump - Dougs Boatyard, Opua	Stream POD - Dougs Boatyard, Opua	Stormwater discharge from boatyard to CMA at a point 10 m from the point of discharge to the CMA	BOI - Southern end of English Bay.	Compliance - existing consent - 10m mixing	Compliance - current application - POD
Dissolved Oxygen (g/m3)	9.7	10.14	8.34	8.44	8.03		
Dissolved Oxygen Percent Saturation (% sat)	94.7	96.8	92.3	94.6	93		
Salinity (ppt)	0	0	18.9	21.3	25.8		
Temperature (degC)	14.3	13.3	14.7	14.7	14.8		
Copper Total (g/m3)	0.017	2.1	0.24	0.015	0.031	0.0013	0.01
Lead Total (g/m3)	0.0042	0.067	0.018	0.0013	0.0057	0.0044	0.01
Zinc Total (g/m3)	0.022	1.2	0.11	<-0.01	0.025	0.015	0.1
Turbidity (NTU)	120	33	60	20	50		
Total Suspended Solids (g/m3)	36	38	78	39	83		100



From: Doug and Helen [mailto:totarahill@xtra.co.nz]
Sent: Thursday, 24 May 2018 7:00 p.m.
To: Ricky Eyre <rickye@nrc.govt.nz>
Subject: Re: Stormwater discharges from the slipway.

Good evening Ricky

I have surveyed the required works to the storm water system to further mitigate the discharges from the impermeable surfaces of area "A" and adjacent slipway corridor. I will therefore have the shunting system of any potential overflowing sump contents hooked up to the CSW treatment system by noon tomorrow. This, then, will control approximately 120 square metres of water shed above the CTS sump collection system that will run 24/7.

I agree with most of your outline save your forth bullet where the pump ran intermittently in storm events for an extended period.

In completing the above, I will call you in confirmation and look forward to Adam doing a monitoring protocol to establish the contents of the CTS sump when not in use for washing down and prior to entering the CSW to discharge into the CMA per the current consents.

Secondly, I have devised a cover for the rubbish trailer to keep the rain from falling on any debris removed from area "A" after water blasting.

Lastly, I wish to discuss further CSW and CTS system improvements once I have the Air and Ground discharge studies in hand from AECOM Consultants.

Regards

Doug Schmuck

For: Doug's Opuia Boatyard

24/05/2018 2:55 p.m., Ricky Eyre wrote:

Hi Doug,

This email is to document our phone discussion this afternoon and the agreed action.

- stormwater from the upper area of the yard has discharges through the stormwater treatment system (being ~75% of yard).
- stormwater from the lower area of the yard runs down the slipway to the sump.
- previously all stormwater from the sump was discharged through the stormwater treatment system; this has not occurred for a period of time.
- Currently stormwater is collected by the sump, which once full overtops and the stormwater runs directly to coastal waters.

- You have committed to undertake necessary works to ensure all stormwater from this area of the yard passes through the stormwater system by Thursday 31 May 2018.

Please advise if you are happy with this summary of our discussion.

Regards.



Ricky Eyre
Coastal Monitoring Manager, Regulatory Services
Northland Regional Council | Te Kaunihera ā rohe o Te Taitokerau

DDI 09 470 1258 M 027 476 7981

A 36 Water Street, Whangarei 0110

P 0800 002 004 24 HR ENVIRONMENTAL HOTLINE 0800 504 639



From: Ricky Eyre <rickyey@nrc.govt.nz>

Date: Tuesday, 15 May 2018 at 1:05 PM

To: Melanie Donaghy <melanie@mjdenvironmental.co.nz>

Subject: RE: HEARING - Schmuck jetty redevelopment (zA39031)

Hi Mel.

I've viewed both videos. Without cross referencing the dates in the videos, some of the footage was familiar and had been provided to council in the form of complaints. All complaints we have received regarding this boatyard have been followed up on.

There are a number of general themes of complaint in the videos:

- Use of the reserve.

Presumably not subject to this application.

- Objectionable discharges to air.

This is not easily enforced. Therefore, as per my recommendations, I suggest requiring screening at all times to ensure the effects are minimised. Battered side walls from lowering the slip (not sure if this is part of this application but its in Dougs long term plans) could form the screening.

- Uncontrolled discharges to CMA from stormwater.

I agree the layout of the slipout is an area of improvement. The current set up is not best practice, this is mostly down to the issues with the reserve. Doug is under an abatement notice to concrete the slipway and ensure all waste water from the slip enters the treatment system once the issues with the reserve are settled.

The current set up collects the majority of the waste water through the centre of the rails. From the video it would appear it does not collect the larger volumes during stormwater flows down the outside of the rails. Note, the consent has stormwater quality standards but does not specifically state all stormwater shall enter treatment. My recommendation, separate to concreting the yard which should happen, is to specifically state all stormwater shall enter the system; as we are applying to another current boatyard application.

- Debris on slipway at end of day.

We have followed up on all complaints regarding this issue. After the second complaint in recent times, Doug accepted this is a requirement of consent and there have been no further issues to my knowledge.

Ricky Eyre
Coastal Monitoring Manager, Regulatory Services
Northland Regional Council | Te Kaunihera ā rohe o Te Taitokerau

APPENDIX 5

NRC Abatement Notice



File: E4.12; ICE421099

ABATEMENT NOTICE UNDER SECTIONS 322 & 324 OF THE RESOURCE MANAGEMENT ACT 1991

To: Doug C Schmuck
Doug's Opua Boatyard
1 Richardson Street
Opua 0200

1. Northland Regional Council gives notice that you must take the following action:

1. Install an impervious surface on the area around the turntable and on the slipway to ensure that all contaminants from water blasting boats are captured and directed to the treatment system.
2. Concrete the area on the slipway as identified in the attached plan to ensure that all contaminants from water blasting boats are captured and directed to the treatment system.

2. The location to which this abatement notice applies is:

Doug's Opua Boatyard, Richardson Street, Opua.
Sec 2 SO 24139, Pt Sec 1 SO 16553, Sec 3 SO 46155, Sec 1 – 4 SO 68634,
Blk V Russell SD.

3. You must comply with this abatement notice within the following period:

Requirement 1 – by 10 November 2010.

Requirement 2 – within one month of the necessary approvals being obtained from the Department of Conservation and the Far North District Council.

4. This notice is issued under:

Section 322(1)(b)(ii) of the Resource Management Act 1991, which states that:

“(1) An abatement notice may be served on any person by an enforcement officer—

(b) Requiring that person to do something that, in the opinion of the enforcement officer, is necessary to ensure compliance by or on behalf of that person with this Act, any regulations, a rule in a plan or a proposed plan, or a resource consent, and also necessary to avoid, remedy, or mitigate any actual or likely adverse effect on the environment—

(ii) *Relating to any land of which the person is the owner or occupier.*"

5. The reasons for this notice are:

Enforcement Officer, Michael Nager, visited the property on 22 October 2010 and found that:

- Water blasting of boats had been occurring on the turntable and slipway which was resulting in contaminants not being directed to the treatment system.
- Condition 15(e) of consent CON20060791410 requires '*Water blasting or washing of vessel hulls shall only take place over impervious yard surfaces (i.e. the turntable) which are able to collect wastewater for processing via the wastewater treatment system.*'
- The area where the boats are water blasted on the slipway has not been concreted as agreed during the mediation undertaken as part of the consent application process.

Section 15(1)(b) of the Resource Management Act 1991 prohibits the discharge of contaminants onto or into land in circumstances which may result in that contaminant entering water.

The discharge, on 22 October 2010 contravened section 15(1)(b) of the Resource Management Act 1991.

Contravention of section 15(1)(b) of the Resource Management Act 1991 is an offence under section 338(1)(a) of the Resource Management Act 1991.

This notice has been issued to you to require you to take the action as set out in clause 1 because, in the opinion of the enforcement officer that issued this notice, this action is necessary to ensure compliance by you with section 15(1)(b) of the Resource Management Act 1991 / regulations / a rule in a plan / a proposed plan / a resource consent and also necessary to avoid / remedy / mitigate any actual / likely adverse effect on the environment relating to any land of which you are the owner / occupier. The likely adverse effects include: biological effects, including the smothering of aquatic life; effects on aesthetic values; and effects on matters of significance to Tangata Whenua.

- 6. If you do not comply with this notice, you may be prosecuted under section 338 of the Resource Management Act 1991 (unless you appeal and the notice is stayed as explained below), or an infringement notice may be served on you under section 343C of the Resource Management Act 1991.**

You have the right to appeal to the Environment Court against the whole or any part of this notice. If you wish to appeal, you must lodge a notice of appeal in form 49 with the Environment Court within 15 working days of being served with this notice.

An appeal does not automatically stay the notice and so you must continue to comply with it unless you also apply for a stay from an Environment Judge under section 325(3A) of the Resource Management Act 1991 (see form 50). To obtain a stay, you must lodge both an appeal and a stay with the Environment Court.

You also have the right to apply in writing to Northland Regional Council to change or cancel this notice in accordance with section 325A of the Resource Management Act 1991.

7. The name of the enforcement officer serving this notice is:

Michael John Nager


The Northland Regional Council authorised the enforcement officer who issued this notice. Its address is:

Northland Regional Council
Private Bag 9021
Whangarei Mail Centre
Whangarei 0148

Phone: (09) 438 4639
Facsimile: (09) 438 0012

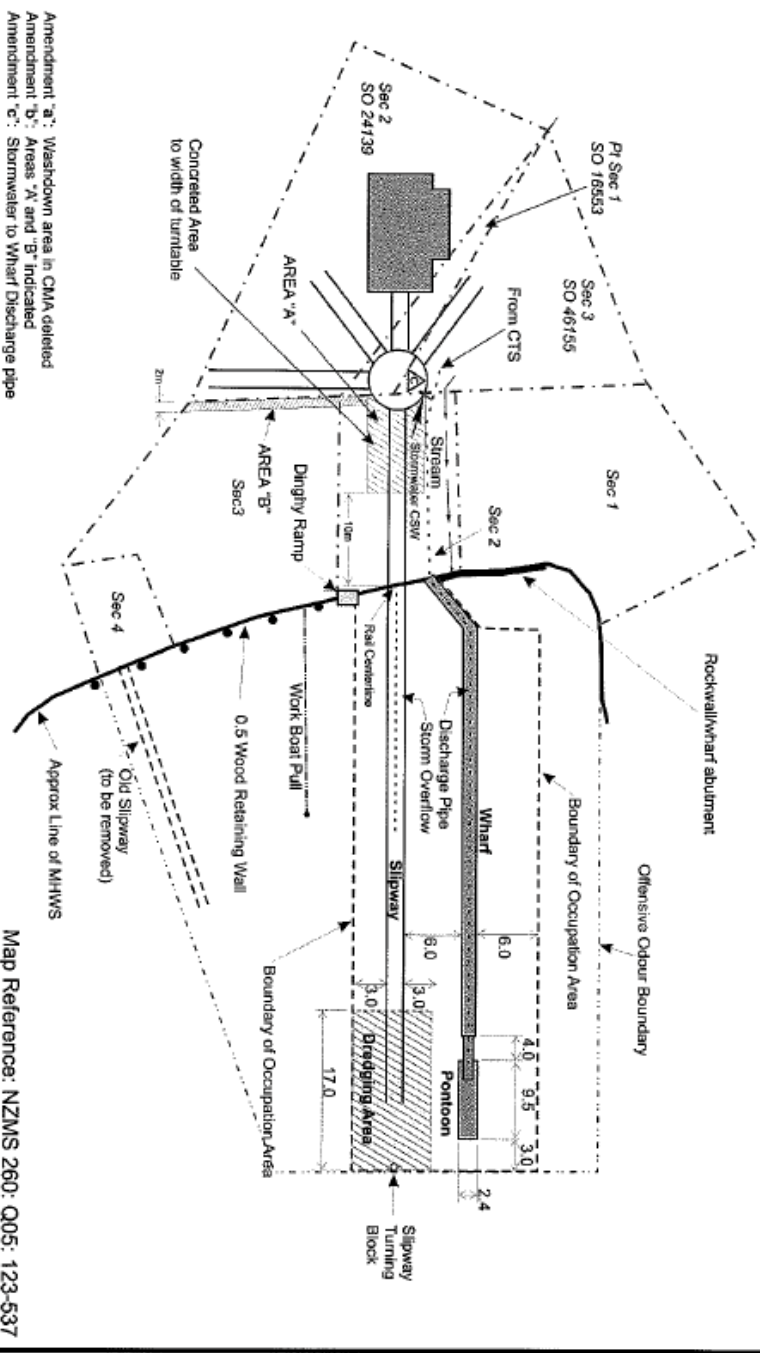
8. The enforcement officer is acting under the following authorisation:

A warrant of authority issued by the Northland Regional Council, pursuant to section 38 of the Resource Management Act 1991, authorising the officer to carry out specified functions and powers as an enforcement officer under the Resource Management Act 1991 including issue of abatement notices.


.....
Michael John Nager
Enforcement Officer
Northland Regional Council

27 October 2010

Note: Dimensions in Metres



Amendment 'a': Washdown area in CMA deleted
 Amendment 'b': Areas 'A' and 'B' indicated
 Amendment 'c': Stormwater to Wharf Discharge pipe

Map Reference: NZMS 260: Q05: 123-537

DWN. App'd	By	Date
C N Anderson	C N Anderson	03/07
C N Anderson	C N Anderson	12/01
C N Anderson	C N Anderson	01/08

No.	Amendment	Date
a	C N Anderson	03/07
b	C N Anderson	12/01
c	C N Anderson	01/08

RESOURCE CONSENT NLD 99 7914		NORTHLAND REGIONAL COUNCIL
for Doug's Opua Boat Yard Boat Maintenance Facilities - Opua		
Scale		Plan No.
N.T.S.		3231c

APPENDIX 6

Response to Questions from the Hearing Committee Raised During the Hearing on 17 – 18th May 2018

Maintenance Dredging History

In discussions with the Council's Coastal Monitoring Manger, Ricky Eyre, I can confirm that to the best of Mr Eyre's knowledge and in reviewing council monitoring records, maintenance dredging has not been carried out within the last 10 years at the site. Mr Eyre also indicated that the CMA within the vicinity of the existing structures is not an area subject to high sedimentation.

Discharge to Air and Offensive Odour Boundary

There was some ambiguity at the hearing in regards to the identified 'Offensive Odour Boundary' line where it incorporated the CMA as shown on NRC Plan 3231C included in the 2003 discharge consent for Doug's Opua Boatyard (CON20060791410:12). For clarity, this consent permitted the discharge of contaminants to air in the CMA from marine vessel construction, sale, repair, maintenance and associated activities (which are permitted to be carried out on the existing jetty).

Condition 6 of this consent required that:

The exercise of this consent shall not give rise to any discharge of contaminants, which is noxious, dangerous, offensive or objectionable at or beyond the boundaries of Sec 2 SO 24139, Pt Sec 1 SO 16553, Sec 3 SO 46155, Sec 1 – 4 SO 63634, Blk V and the area within the Coastal Marine Area defined by the Offensive Odour Boundary in NRC Plan No 3231c.

Demolition and Reconstruction of the Existing Jetty

In response to the question from the Committee as to whether the demolition and reconstruction of the existing jetty would be a permitted activity, the PRP provides for such as a permitted activity under Rule C.1.1.7, provided the new structure is in the same location and footprint as the original structure (like for like).

In terms of the RCP, the removal of the jetty would be regarded a controlled activity under Rule 31.6.3b and the maintenance and repair of the jetty is classed as a permitted activity under Rule 31.6.3h of the RCP. There are no rules under the RCP which specifically cover the rebuild of a jetty/structure (like for like). Therefore, this activity would be regarded as a discretionary activity pursuant to s87B of the RMA.

Existing Authorised Seawalls

In response to concerns around the erosion of the existing authorised seawalls, I can clarify that the recommended consent conditions include the requirement that these structures are maintained in good order and repair. As part of my assessment on the applications, NRC monitoring staff were asked to provide comment on the compliance of the existing structures against the current consent conditions. The response from Neels van Tonder, NRC Environmental Monitoring Officer (Coastal), which was received via email on 11 April 2018, asserted that the structures including the seawalls were compliant with resource consent conditions and were well maintained when last inspected.

Spray Painting

In response to a question from the Committee in relation to the controls around spray painting, a condition of consent is recommended that requires compliance with Environmental Protection Agency requirements including the setting up of a controlled work area around the vessel concerned (condition 70):

All spray application of antifouling paint shall comply with Environmental Protection Agency rules including setting up of a controlled work area around the vessel concerned.

Evolution of Jetty and Discharge Permits

In response to a question from the Committee at the hearing regarding the evolution of the jetty and discharge permits, the following information has been taken and summarised from the various resource consent hard files for Doug's Opua Boatyard, held at the Northland Regional Council (NRC). Unfortunately, not all information sought was readily available during my review of these hard files.

- 1971 - Elliots Boatyard (T Leeds) applied to erect a boatbuilding workshop and office on proposed roadway.
- 03/05/1989 - Jetty and slipway granted a Harbour Board Licence (HBL) to Elliots Boatyard Expiry date: 02/05/2003 (Deemed Coastal Permit)
- 1995 – Northland Regional Council (NRC) sent correspondence to Mr Schmuck requiring resource consent application be lodged for discharge to the coastal marine area (CMA).
- 1996 – Mr Schmuck applied to continue the operation of the slipway and jetty along with application to:
- Construct washdown area (partly within CMA) and an interceptor drain, sump and pump on the slipway.
 - Construct a 7m x 3m floating pontoon and ramp (gangway).
 - Construct a pipeline near jetty for discharging treated washdown water and stormwater at the combined rate of up to 10 litres / second to the CMA.
 - Dredge ~46 cubic metres of seabed material (pontoon area ~ 48 square metres).
- NRC determined that land use consents were also required from Far North District Council (FNDC) for activities on the road reserve (non-complying activity). Mr Schmuck subsequently applied to the FNDC for land use consent.
- Mr Schmuck placed the resource consent application to NRC on hold under Section 91 of the Resource Management Act (RMA).
- 1998 – Mr Schmuck withdrew the land use application from FNDC.
- 1998 – Mr Schmuck applied for a Certificate of Compliance from NRC.
- 24/09/1998 - Mr Schmuck provided an Assessment of Effects (AEE) for his resource consent which was still on hold under Section 91 of the RMA. The AEE stated that the *“Boatyard is listed as a commercial slipway and jetty*

Nos.118/Opu-Aa and 118/OPU-Ab under the Regional Coastal Plan (RCP).”

- 08/10/1998 - Certificate of Compliance was issued from NRC in part to what was applied for. Subsequently Mr Schmuck lodged an objection to NRC.
- 30/10/1998 - Mr Schmuck applied for a land use consent from FNDC.
- Dec 1998 - Mr T Kyriak applied for interim enforcement order (Sections 320 and 316 of the RMA) to prohibit Mr Schmuck from carrying out activities on the Walls Bay Esplanade Reserve. Such activities included:
- Washing down of boats
 - Cleaning of hulls of boats
 - Water blasting hulls
 - Painting or other works on boats
 - Any other works not covered by resource consent.
- Mr Kyriak alleged that the jetty HBL Condition 1 states: *The cleaning, scraping or painting of boats is not permitted alongside the jetty.*
- 23/12/1998 - Environment Court decision released requiring Mr Schmuck to cease / prohibiting him from commencing discharging contaminants from the boatyard or slipway to water or onto land unless the discharge is expressly allowed by a rule in a regional plan and/or in any relevant proposed regional plan, a resource consent or regulations.
- 19/01/1999 - NRC confirmed no consent is, or was, held for the discharge of contaminants from the boatyard operations.
- 13/04/1999 - NRC request Mr Schmuck to make a revised resource consent application (original application from 1996 still on hold).
- 20/04/1999 - Mr Schmuck withdrew his objection to the Certificate of Compliance.
- Oct 1999 - Mr Schmuck lodged a revised resource consent application for discharge permits and coastal structures.

DISCHARGE PERMITS:

Discharge to Water:

“The application stated that the rates of flow of discharge waters were estimated to be between 2/10 litres / second during washdown for 20 to 40 minutes and up to 10 litres / second during normal storm conditions. The total surface area in the yard and utilised slipway/washdown areas combined being approximately 700 square metres.” (Taken from the AEE).

Discharge to Air:

“Discharges into the air will be related to water vapour during washdown, sand dust incidental to hand sanding, electrical machine by disc or pad and pencil sand blasting, paint vapours due to application by brush, roller, compressed air, noise from any or all sources of machines, tools or beings. The level of discharge cannot be estimated because of the variability of the activities and prevailing weather conditions that may affect the scale of each of the incidental events.” (Taken from the AEE).

Discharge to Land:

“Discharge to land in effect will be contained to the area of land described as boatyard and slipway. These discharges consist of paint, wood, fiberglass, metal, and petrol chemical by-products associated with the marine industry. The level of discharge of oils and chemicals related to paint will be controlled in specific areas particularly around the pulling winch and at the paint cleaning station. The level of discharge cannot be estimated because of the variability of the activities and scale of each event. The activities of water blasting, scraping, sanding and painting within the washdown are a normal conduct of work and the historical use of the site. All tailings from these activities that will drain mixed with water into the sump, will be pumped to the CTS for settlement then filtration before discharge. All other sediments are to be disposed of as collected waste dirt and removed from the collection tank to a suitable disposal site.”
(Taken from the AEE).

20/10/1999 - Correspondence from FNDC informing Mr Schmuck that a temporary containment system on land above MHWS will require a land use consent from FNDC.

19/03/2001 - Joint council hearing (both NRC and FNDC) for resource consent applications (capital dredging was removed from application by Mr Schmuck).

2001 – Joint council decision was released –
Coastal permits were granted in part to carry out the following activities:
To place use and maintain:

- A wharf, wharf abutment and walking track security lighting, discharge piping and access pontoon;
- A slipway, complete with cabling and a dinghy ramp;
- Those parts of a timber and stone seawall and associated reclamation that lie within the CMA;
- A workboat mooring and pull; and
- Existing signage and hoardings.
- To carry out maintenance dredging of seabed material at the slipway.
- To use the above structures for purposes associated with the boatyard including survey and inspection of ships and safe ship management, gridding of vessels for maintenance, marine brokerage of vessels for sale and/or charter in conjunction with the boatyard office.
- To occupy an area of seabed associated with the slipway and wharf structures.

Conditions of note that were included stated:

“That the wharf shall not be used for the cleaning down, or the preparation or painting of vessel hulls.” (This condition is subsequently amended in the Consent Order).

“There shall be no washing-down of vessel hulls within the CMA.”

“The floating pontoon shall only be used for the casual berthing of craft”.

“The wharf shall not be used for the permanent mooring of any vessel. For the purposes of this condition “permanent mooring” means the use of the wharf for longer than 12 hours in any seven day period or the use for other than repairs and maintenance or survey work which, because of their nature, requires a vessel to be located at the wharf for a longer period.

The expiry date for the coastal permits is: 30 March 2036.

Coastal permits for the following activities were refused:

- A containment and utility wharf shed complete with ramp.
- A timber boatramp.
- Mooring of vessels to the wharf as structures for the purposes of accommodation.

Discharge Permits were granted for the following:

- To discharge treated washwater to the CMA (no more than 1 cubic metre / day)
- To discharge contaminants to air from marine vessel construction, sale, repair, maintenance and associated activities on Sec 2 SO 24139, Pt Sec 1 SO 16553, Sec 3 SO 46155, Sec 1 – 4 SO 63634, Blk V Russell SD.
- To discharge contaminants to air in the CMA from marine vessel construction, sale, repair, maintenance and associated activities.
- To discharge contaminants to ground as a result of boat maintenance activities on Sec 2 SO 24139, Pt Sec 1 SO 16553, Sec 3 SO 46155, Secs 2 & 3 SO 63634, Blk V Russell SD.
- To discharge stormwater to an unnamed tributary of the Veronica Channel
- To discharge stormwater to the CMA.

The expiry date for the discharge permits was: 30 April 2006.

Within the decision for land use consents the following (of relevance) was granted:

- Wharf abutment
- Existing wooden and stone retaining walls, where these do not otherwise lie in the CMA

The decision was appealed.

31/01/2002 - A consent order was released from the Environment Court with some changes to conditions including the following of relevance:

“Within the CMA, there shall be no cleaning of vessel hulls below their water lines involving the discharge of contaminants.

Note: While this condition generally precludes the cleaning of marine growth from vessel hulls, it does allow the controlled removal of marine growth from limited areas of the vessel (for example from skin fittings, propellers or zinc blocks) associated with minor maintenance, where all marine growth that is removed is contained and disposed of to an approved land-based facility, and where no marine growth is discharged to the CMA.”

Date?: Mr Schmuck lodged resource consent application for discharge consents (previous consent expired on 30/04/2006).

The discharge activities were classified as follows:

Consent Type	For	Detail	Classification
Coastal Permit	Coastal Discharge	Treated wash-water	Discretionary, RCP Rule 31.6.5(f)
Discharge Permit	Air discharge (from land based activities)	Marine vessel construction, sale, repair, maintenance and associated activities	Discretionary, RAQP Rule 9.1.5
Coastal Permit	Air discharge (from activities in the CMA)	Marine vessel construction, sale, repair, maintenance and associated activities	Discretionary, RCP Rule 31.6.5(r)
Discharge Permit	Discharge to land	Boat maintenance activities	Discretionary, RWSP Rule 20.3
Discharge Permit	Discharge to water	Stormwater to water (unnamed tributary)	Discretionary, RWSP Rule 21.3
Coastal Permit	Coastal discharge	Stormwater to CMA	Discretionary, RCP Rule 31.6.5(f)

11/03/2008 – NRC Hearings Committee granted resource consents for discharge permits:

- To discharge treated wash water to the coastal marine area (no more than 1 cubic metre / day).
- To discharge contaminants to air from marine vessel construction, sale, repair, maintenance and associated activities on Sec 2 SO 24139, Pt Sec 1 SO 16553, Sec 3 SO 46155, Sec 1 – 4 SO 63634, Blk V Russell SD.
- To discharge contaminants to air in the coastal marine area from marine vessel construction, sale, repair, maintenance and associated activities.
- To discharge contaminants to ground as a result of boat maintenance activities on Sec 2 SO 24139, Pt Sec 1 SO 16553, Sec 3 SO 46155, Secs 2 and 3 SO 63634, Blk V Russell SD.
- To discharge stormwater to an unnamed tributary of the Veronica Channel on Sec 3 SO 46155 Blk V Russell SD.
- To discharge stormwater to the coastal marine area.

Date?: Mr Schmuck lodged retrospective resource consent application at the advice of NRC for existing seawall and dinghy ramp extension.

19/02/2013 - NRC non-notified decision granted for retrospective resource consent application for coastal permits and land use consent:

Coastal Permits:

- To place, use and occupy space with a seawall
- To place, use and occupy space with a dinghy ramp extension.

Land Use Consent:

- To place and use those portions of a dinghy ramp located above Mean High Water Springs (MHWS).

Sept 2017 – Mr Schmuck lodged current / subject resource consent applications.

APPENDIX 7

Technical Review of AECOM Air Quality Assessment

Northland Regional Council
Private Bag 9021
Whangarei Mail Centre
WHANGAREI 0148

Attention: Paul Maxwell

Dear Paul

Doug's Opuia Boat Yard - Technical review of air quality assessment

1 Introduction

Tonkin & Taylor Ltd (T+T) has been engaged by Northland Regional Council (NRC) to undertake a review of the air quality assessment prepared by AECOM New Zealand Limited (AECOM) for Doug's Opuia Boat Yard at Opuia, Bay of Islands.

The Boat Yard currently holds a resource consent (Air Discharge Permit CON20060791410 – 12) that authorises the discharge of contaminants to air from marine vessel construction, sale, repair, maintenance and associated activities. This resource consent expired on 30 March 2018 and an application for a replacement consent was lodged on 23 September 2017. The application was publically notified and a Council hearing commenced on 17 May 2018. AECOM has prepared an air quality assessment (dated 9 July 2018¹) to provide additional information to the Hearing Commissioners.

In reviewing the air quality assessment we have referred to requirements and guidance from various sources including:

- Ministry for the Environment Good Practice Guide for Assessing and Managing Dust² (Dust GPG)
- Ministry for the Environment Good Practice Guide for Atmospheric Dispersion Modelling³ (Dispersion Modelling GPG)
- The Environmental Protection Agency Controls for Anti-Foul Paints
- Requirements for similar activities in other parts of New Zealand, for instances where the NRC's planning documents do not provide specific controls or guidance

This report has been prepared in accordance with the request from NRC dated 26 July 2018 and the conditions attached to our standing agreement with NRC for consultancy services.

¹ AECOM New Zealand Limited. Doug's Opuia Boat Yard - Air Quality Assessment. Assessment of Air Emissions from Boat Yard Activities. 9 July 2018.

² Ministry for the Environment. 2016. Good Practice Guide for Assessing and Managing Dust. Wellington.

³ Ministry for the Environment. 2004. Good Practice Guide for Atmospheric Dispersion Modelling. Wellington

2 Nature of discharges to air

AECOM has identified the following activities at the Boat Yard as having the greatest potential for discharges to air:

- Water blasting of vessels;
- Sanding and grinding of vessels;
- Application of antifouling coatings to vessels; and
- Painting of vessels.

The principal discharges to air from these activities are identified by AECOM as particulate and volatile organic compound (VOC) emissions.

The air discharge conditions proposed in the Officers Report (reproduced in Section 10 of the AECOM report) would permit effects within the "Discharge to air and offensive odour boundary" shown in the Figure in Appendix C of the AECOM report. This area includes both Doug's Boat Yard and the adjacent area shown as Esplanade Reserve in Figure 4 in the AECOM report. AECOM's assessment principally focuses on "off-site" effects, meaning effects beyond this compliance boundary.

We understand that the extent of boat maintenance activities in the Esplanade Reserve is a matter of contention in the hearing. Therefore, in this review, we have also commented on effects within the Reserve and considered mitigation that might be required if the compliance boundary were to be moved closer to the boat maintenance activities.

3 Effects of particulate and water overspray

3.1 Potential effects

The effects of particulate matter are related to particle size:

- Total Suspended Particulate (TSP) is particulate smaller than approximately 100 micron (μm). The effects of TSP are principally nuisance effects such as soiling and visible dust. At very high concentrations, TSP can have adverse effects on plants and crops or water quality through deposition into water.
- Small particles that can be inhaled into the lungs have the potential to cause health effects. The potential for health effects is typically considered in terms of PM_{10} (particulate less than 10 μm diameter) or $\text{PM}_{2.5}$ (particulate less than 2.5 μm diameter).

The majority of particulate matter generated by mechanical activities such as water blasting, sanding and grinding will be relatively large particles and flakes, with minimal PM_{10} . Larger airborne particles tend to be trapped in the nose or mouth, so exposure to contaminants in particulate matter would be via ingestion (rather than inhalation).

Large particles tend to deposit to the ground close to the source, so that effects are localised. Under wind speeds of 5 m/s, a 10 μm particle has the potential to be blown hundreds of metres while a 100 μm particle would only travel about 10 m away from the source before it falls to the ground (depending on the height at which it is released).

3.2 Particulate monitoring

AECOM undertook monitoring of TSP concentrations in ambient air over an 8 day period while a range of typical activities were being undertaken, including water blasting, scraping, grinding, application of antifouling, both sprayed on and rolled on, and polishing of topsides. The monitoring

was undertaken adjacent to the slipway (where the activity was being carried out) at a distance of approximately 3 m.

The monitoring was carried out using E-BAMs. E-BAMs are commonly used for investigative studies where less portable and more expensive reference methods are not warranted. However, they are not suitable for monitoring in moisture laden conditions.

E-BAMs are typically fitted with a heated sample inlet to vaporise water and prevent it from condensing on the filter tape. The heated inlets are designed to cope with high humidity but are unlikely to be effective where there are high levels of free moisture. If moisture gets into the E-BAM, it can give readings that are overly high or overly low (including negative). Based on this, I consider that the particulate measurements while water blasting was being carried out (which were very low) are subject to a high level of uncertainty. However, I have undertaken a qualitative assessment of the effects of water blasting that draws the same conclusions as the AECOM report with respect to off-site effects.

The close proximity of monitors (3 m) to the maintenance activities also needs to be considered when evaluating the results. Large particles will fall to the ground close the source compared to smaller particles that remain suspended in the air over greater distances. The high recorded particulate concentrations during scraping and grinding could be caused by large number of small particles that have the potential to be transported greater distances by the wind, or by a small number of large particles that are unlikely to travel more than a few metres past the monitoring location.

E-BAMs have a default hourly measurement cycle, however they can also record concentrations over shorter averaging periods (1, 5, 10, 15, 30-minute averages of 60 second readings). These real-time concentrations are less accurate than the 1-hour average concentration but can be useful for understanding short term variability in particulate concentrations. Sub-hourly concentration data from the E-BAMs would have been useful, but have not been reported.

3.3 Assessment criteria

The TSP monitoring results have been compared to trigger levels for on-site dust control recommended in the relevant Ministry for the Environment good practice guidance⁴ (Dust GPG). The AECOM assessment considers trigger levels set for moderate sensitivity receiving environments on the basis that the measurement point is so close to the source that it will overstate potential impacts at high sensitivity receptors located some distance away. We consider it would have been more consistent with the recommendations in the Dust GPG to consider the trigger levels for high sensitivity receiving environments at neighbouring dwellings, but apply a dilution factor to the measured concentrations to account for the distance between the measurement location and the receptor being considered. However, this would not materially alter the findings of the air quality assessment.

The Dusts GPG includes a 5-minute average trigger level of 250 µg/m³ for high sensitivity receiving environments. This trigger level is intended to manage the acute effects of brief spikes in dust emissions that may be masked by hourly averages. Given the intermittent nature of the boat maintenance activities and the infrequent but potentially close proximity of people in the reserve, short term dust emissions have the greatest potential to cause nuisance effects within the Reserve.

⁴ Ministry for the Environment. 2016. Good Practice Guide for Assessing and Managing Dust. Wellington.

3.4 Effects of scraping, grinding and sanding

The particulate monitoring showed that scraping and grinding (on 12 and 19 June 2018) were the activities that generated the highest concentrations of particulate. There was no appreciable TSP measured during other activities.

AECOM has not considered the potential for exposure to contaminants in dust from anti-foul paints. However the proposed consent conditions include a requirement to use vacuum sanders for preparation or smoothing of antifouling. Vacuum sanders will effectively control dust emissions and therefore we consider that the potential for effects will be adequately mitigated.

The inferred 24 hour average concentrations of TSP are well below the trigger levels, which would be expected for activities that only occur for a few hours each day. 1-hour average concentrations exceeding the trigger threshold were recorded on 19 June 2018. However, as discussed in Section 3.1, we agree with AECOM's conclusion that the majority of particles generated from these activities will fall to the ground close to the source and will not cause a dust nuisance at the nearest residential locations.

As previously noted, the AECOM report does not include sub-hourly TSP concentrations. However, given the close proximity of the monitors to the slipway, short term dust levels are likely to be highly variable as grinding and scraping activities move along the hull at varying distances to the monitor. As an example of how presenting the data as hourly average concentrations could mask large spikes, a 1-hour average concentration of 392 $\mu\text{g}/\text{m}^3$ could arise from:

- Twelve 5-minute periods with a concentration of 392 $\mu\text{g}/\text{m}^3$; or
- Eleven 5-minute periods with a concentration of 245 $\mu\text{g}/\text{m}^3$ and one 5-minute period with a concentration of 2,000 $\mu\text{g}/\text{m}^3$.

In the absence of further data, we consider that there is the potential for short term elevated concentrations of dust within the Reserve (within the current "Discharge to air and offensive odour boundary") at levels that could nuisance effects. The AECOM report indicates that sanding and grinding activities are estimated to occur for 1 to 2 hours a day on up to 40 days in the year (page 10). The extent to which there would be an offensive or objectionable effect from these discharges is dependent on the patterns of use of the Reserve and the frequency at which the discharges coincide with people being present. This has not been assessed by AECOM as the Reserve is within the proposed compliance boundary.

3.5 Effects of water blasting

With regard to water blasting, the AECOM report states that:

"This operation will generate a visible water vapour plume with any particulate disturbed from the vessel likely to fall immediately to the ground or be contained within large water droplets which would also fall to the ground very near to the vessel."

High pressure water blasting will tend to dislodge larger flakes of dirt and substrate compared to grinding and sanding. The distance this material travels from the slipway will largely be determined by the pressure of the water blaster and height above the ground, would generally be of the order of 5 to 10 metres from the source. Therefore, we agree with AECOM that there is no potential for nuisance from dust or contaminants entrained in water droplets at the nearest house (approximately 50 m away).

The large particles and debris dislodged by water blasting are unlikely to be inhalable, but could cause a nuisance by depositing within the Reserve. There is the potential for effects on people via ingestion or skin exposure, however we consider that the risk of people remaining in close proximity to the waterblasting (being sprayed with water) for any length of time is low, so the risk is mitigated

by the very short duration of exposure. We agree with the control recommended by AECOM that the water used for water blasting meets drinking water standards, as a prudent precautionary measure.

We have seen video footage submitted by M Rashbrooke to the Hearing that included recordings and photographs of water blasting activities. The video shows a visible plume generated by the water blasting being carried into the vegetation to the north of the slipway, during waterblasting on the southern side of a boat. AECOM's description of the plume generated by water blasting as "water vapour" is inaccurate because the water is not in the gaseous phase. The plume is a mist of fine liquid aerosol droplets, which are technically a component of particulate matter emissions (particulate matter includes both solid and liquid particles⁵). However, compared to solid particles (dust⁶), the potential effects of the mist from water blasting are limited. The water mist is unlikely to contain appreciable contaminants and is therefore unlikely to cause soiling of surfaces (as the water evaporates after it deposits). This water mist can have visual effects and be a physical nuisance within the Reserve (i.e. people can be physically wetted by the overspray and mist).

4 Effects of VOCs and odour from anti-fouling and paint

4.1 Assessment methodology

AECOM has undertaken dispersion modelling of estimated VOC emissions from application of antifouling coating and paint. We have not undertaken a detailed review of the dispersion modelling but there are several aspects that we consider are not consistent with good practice. For this reason, we consider that it should be considered as a screening assessment only. The AECOM assessment considers potential health effects of exposure to VOCs, and does not consider potential odour effects.

A key area of uncertainty in the modelling is that the emissions have been modelled as a stack (point source). We consider that a volume source would provide a better representation of the emissions and be more consistent with the recommendations in the Dispersion Modelling GPG. The dispersion modelling found the worst case concentrations within the Reserve (approximately 20 m from the source) were lower than at the closest house (approximately 50 m from the source). In reality, I expect that concentrations will reduce rapidly with distance, with the highest concentrations occurring close to the source (within the Reserve).

Notwithstanding these limitations in the modelling, I consider there is enough information to understand the potential air quality effects of anti-foul and paint coating activities based largely on a qualitative assessment.

The overall scale of the painting activities assessed by AECOM (using less than 10 L/day of paint or antifoul on less than 40 days per year) is small. For comparison, the Northland Regional Air Plan sets a permitted activity threshold for consumption of coating materials at spray coating facilities of 30 L/day. The small scale of the operation is a key mitigation measure for effects and it may be appropriate to limit daily and/or total coating application rates as a condition of consent.

4.2 Effects of applying paints

The AECOM report indicates that boats are painted at the site approximately 4 times per year with a total paint usage of the order of 30 L of paint each year (an average of about 7.5 L per boat). In

⁵ Dust GPG, p6

⁶ The Northland Regional Air Plan includes the following definition "Dust - All solid particulate matter that is suspended in the air, or has settled after being airborne"

general terms the painting activity is of such a small scale that the potential for off-site effects is negligible (notwithstanding the potential impacts of the isocyanate content of certain paints).

One of the top coat systems that could be used is a two-part polyurethane, containing diisocyanates. The main potential effects associated with diisocyanate exposure is respiratory irritation, as well as skin and eye irritation. Two-part polyurethane coating systems can be used to maintain infrastructure on public land, such as roadside bridge rails, etc. Exposure to diisocyanates from these activities was considered in the Auckland Unitary Plan, which sets the following controls for spray application of surface coatings containing diisocyanates for maintenance of infrastructure (Chapter E14.6.1.4):

- There must be no activities sensitive to air discharges⁷ within 30m of the activity.
- There must be an exclusion zone that prevents public access within 15m of the activity.
- The quantity of paint containing diisocyanates or organic plasticisers applied in a continuous application at a single location must not exceed 18 litres per day.

Based on this, we consider that AECOM's assessment of potential effects of diisocyanates at the closest residential house to the south of the Boat Yard is likely to be conservative (i.e. over predict likely concentrations). However, avoiding spray painting of materials containing diisocyanates when winds are blowing towards this house would be a prudent, precautionary measure.

Spray painting of diisocyanate coatings is only likely to occur on up to 3 occasions each year, so the risk of adverse effects is low. However, in my opinion, it would be appropriate to maintain an exclusion zone around this activity to minimise exposure to people within the Reserve. In the absence of further information, a separation distance of 15 m would seem appropriate.

4.3 Effects of applying anti-fouling

The AECOM report states that antifouling coating is generally applied by brushing and that spray painting is only undertaken "from time to time". Discharges to air from application of solvent-based surface coatings using a roller or brush are unlikely to have any effects other than localised odours (within 5 to 10 metres of the activity). Therefore, I consider only spray application of anti-fouling paint warrants further consideration.

The AECOM report states that the anti-foul paint is applied at a rate of up to 6.125 L/hour (5 L paint and up to 1.125L thinner) and that there are "*.. in the order of 80 to 100 hours of paint applications per year*". The proportion of this activity that involves spray painting is not stated.

Anti-foul paints contain biocides and metals that are toxic to people if they are exposed at sufficient quantities. The Environmental Protection Agency Controls for Anti-Foul Paints require establishment of a controlled work area and signage, including "using a method and located such that off-target deposition of the substance, including onto bystanders, is avoided by taking all practicable steps⁸". This control is intended to protect the public from adverse effects of direct exposure to overspray from the anti-foul paints (note: this differs to the suggested exclusion area for spray painting of diisocyanates, which is intended to protect the public from exposure to airborne vapours, so a smaller separation distance is likely to be appropriate).

Assuming a controlled work area is in place, we agree with AECOM that emissions of VOCs that volatilise from the solvent-borne paint mixture during application and as it dries are the most likely cause of potential effects. The main VOCs generated from the use of anti-foul paints are substances

⁷ Activities sensitive to air discharges includes dwellings

⁸ Environmental Protection Agency. Decision on the Application for reassessment of Antifouling Paints (APP201051). 26 June 2013

such as xylene, n-butanol and ethyl benzene (Table 5 in the AECOM report). These VOCs are common to many different solvent-based coating systems.

AECOM has calculated that the VOC emitted at the highest rate from spray painting of anti-fouling is xylene. The odour threshold for xylene is 4,340 µg/m³ compared to the health effects threshold concentration of 22,000 µg/m³ used in the air quality assessment. This means that xylene would cause significant odour effects at concentrations well below levels that are protective of health effects. This is consistent with our experience that the principal effects of small scale spray painting are related to odour.

We consider that odour effects are unlikely at residential dwelling located approximately 50 m away. However there are likely to be noticeable odours in the Reserve (within the current "Discharge to air and offensive odour boundary") during times when spray painting is being carried out. The extent to which there would be an offensive or objectionable effect of these odours is dependent on the patterns of use of the Reserve and the frequency at which the discharges coincide with people being present. This has not been assessed by AECOM as the Reserve is within the proposed compliance boundary.

5 Mitigation measures

5.1 Proposed consent conditions

Section 10 of the AECOM report sets out their comments on the conditions of the air discharge consent recommended in the Officers Report. Key mitigation measures required by these conditions, or suggested by AECOM, include:

- The requirement to use vacuum sanders for removal or smoothing of surfaces coated with anti-fouling.
- That sanding and grinding only be conducted when the wind speed is between 0.5 m/s and 5 m/s as a 60 second average (AECOM suggestion). See comments below about the practicability of using 60 second average wind speeds as the basis for a consent limit.
- That spray application of anti-fouling paint only be undertaken under these same wind speed conditions and when the wind direction is from between 45° and 170° (i.e. not from the northwest through to the northeast).
- That screens to be erected during high pressure water blasting or that water used for water blasting meets drinking water standards (AECOM suggestion). See comments below.

Practicability of 60 second averaging period for wind speed conditions

In my opinion, setting the wind speed conditions based on a 60 second averaging period is impractical for the consent holder and would be difficult to enforce or monitor compliance. In practice, the consent holder will need to anticipate likely wind speeds over the coming hour prior to starting boat maintenance activities and, if the wind speed criterion is likely to be exceeded, activities will need to be stopped. It is impractical for activities to be stopped and re-started over time periods of the order of minutes.

A "wind gust to average wind speed" relationship may be able to be developed from local data, however this would only be indicative. The meteorological data used by AECOM (including the wind roses in Figure 8) and the dispersion modelling predictions are all based on hourly averaging periods. While it is less conservative (protective) than using a 60-second average, in my opinion, the use of an hourly averaging period would be more practical and enforceable and is consistent with AECOM's assessment methodology.

Use of screens for water blasting

The potential effects of water blasting are visual effects and physical wetting of people close to the water blasting activity. These effects are likely to be confined to within the “Discharge to air and offensive odour boundary” in Appendix C of the AECOM report. Therefore mitigation, such as screens, would only be required if there were a need to reduce effects to within a smaller compliance boundary than shown in Appendix C.

Impermeable or low permeability screens are commonly used to control overspray and debris from water blasting. Screens would reduce visible mist to a varying degree depending on their height. It is unlikely that visual emissions would be completely eliminated as some water mist is likely to go over the top of the screens. The screens themselves would also have a visual effect. Given the practical constraints of installing and removing the screens, they would likely need to be in place for longer than the duration of the waterblasting activity. AECOM’s report does not address visual effects, and T+T does not have expertise in assessing visual effects.

Smaller screens could be used in specific locations to avoid physically wetting people who might approach the water blasting activity. Physically wetting people with clean water could cause annoyance but does not pose any health risk provided the water meets drinking water standards. This is not an air quality issue *per se*.

5.2 Additional mitigation measures for dust emissions

The effects of dust emissions are confined to within the “Discharge to air and offensive odour boundary” in Appendix C of the AECOM report. The effects of dust within the Reserve has not been characterised and is dependent on the frequency at which the discharges coincide with people being present.

If the compliance boundary were to be moved closer to the activities, then we consider that additional mitigation measures are likely to be required to avoid offensive or objectionable effects of dust:

- The use of tarpaulins or sheeting to enclose dust generating activities; and/or
- The use of vacuum attachments on all grinding and sanding equipment (note: the proposed Condition 6) would only require the use of dust collection when preparing or finishing surfaces painted with anti-foul).

5.3 Additional mitigation measures for emissions from paint and anti-fouling

The effects of emissions from application of paint and anti-foul are likely to be confined to within the “Discharge to air and offensive odour boundary” in Appendix C of the AECOM report.

Notwithstanding this, I consider that additional controls are warranted when spray painting of coatings containing diisocyanates is being carried out. Although this activity is very infrequent, we consider that there should be measures in place to exclude the public from a compliance zone of the order of 15 m from the spray painting activities when diisocyanates are being used. This is to avoid the potential for adverse effects on the public using the Reserve.

The effects of odours within the Reserve associated with VOC emissions from spray painting has not been characterised and is dependent on the frequency at which the discharges coincide with people being present. However, we consider that if the compliance boundary were to be moved closer to the activities, it may be difficult to avoid odours when spray painting is being carried out, unless these activities can be shifted into an enclosed area (or building) with controlled ventilation and exhaust treatment. The frequency of these activities occurring may be so low that the odours do not constitute an offensive or objectionable effect, however this has not been assessed.

6 Applicability

This report has been prepared for the exclusive use of our client Northland Regional Council, with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose, or by any person other than our client, without our prior written agreement.

Tonkin & Taylor Ltd

Environmental and Engineering Consultants

Report prepared by:

Authorised for Tonkin & Taylor Ltd by:



Jenny Simpson

Technical Director – Environmental Engineering



Penny Kneebone

Project Director

JMS

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