

IN THE MATTER Of the Resource Management Act 1991

AND

IN THE MATTER Of an application by F Scott Madsen and Penny Fredericks
(as the Trustees for the Scott Madsen Family Trust) for a
Coastal Permit at Whangatoetoe Bay, Port Underwood
(U130217)

**DECISION OF HEARING COMMISSIONER
RACHEL DUNNINGHAM
23 DECEMBER 2013**

The Application

1. This is an application for a new coastal permit for a marine farm in Whangatoetoe Bay, Port Underwood.

Decision

2. Under my delegated authority from the Marlborough District Council to hear and decide this application, I have decided that Coastal Permit No U130217 be granted subject to conditions.

The Hearing

3. The hearing of this application took place on 6 November 2013 in the Council Chambers, Marlborough District Council offices, Seymour Square, Blenheim. On that date the following appearances were recorded:

Applicants

- David Clark – Counsel for the applicant;
- Scott Madsen – Trustee of the applicant;
- Ron Sutherland – Resource Management Consultant;
- Robert Davidson – Marine Biologist;

Submitters

- Ken Roush – Port Underwood Association Incorporated;
- Eric Jorgensen – Port Underwood Association Incorporated;

Section 42A Reporting Officer

- Bruno Brosnan – Resource Management Officer;
4. At the end of the hearing, I indicated that I would be assisted by further input on appropriate conditions for the proposed staging of implementation of the marine farm, to ensure potential adverse effects on red algae beds were monitored and managed. To that end, I issued a minute advising that the applicant had 10 working days to provide a further set of conditions, then there would be 5 working days for a response from submitters and the reporting officer, and 5 working days for any reply by the applicant on the proposed conditions.

5. On receipt of the applicant's final response on 3 December 2013, the hearing closed.

The Proposal

6. At the outset of the hearing, the applicant advised an amendment to its application to reduce the area applied for from 7.06 ha to 6.185 ha, by reducing the distance the proposed farm extended on the seaward side. The key consequence of this amendment was that the proposal would now comply with Rule 35.4 of the Marlborough Sounds Resource Management Plan (the "**MSRMP**") and therefore be assessed as a discretionary activity, whereas previously, it was a non-complying activity.
7. In all other respects, the description of the application remained the same, and, with the amendment, it was to:
 - (a) Establish a new marine farm with a seaward boundary which would be within 200 metres from mean low water springs.
 - (b) Occupy 6.185 ha of Coastal Marine Zone Two.
 - (c) Establish 14 longlines in two blocks with the eastern block having 7 longlines ranging in length from 105 to 1085 metres, and the western block having 7 longlines ranging in length from 221 metres to 242 metres.
 - (d) Cultivate and harvest any of the following species; green shell mussels (*Perna canaliculus*), scallops (*Pecten novaezelandiae*), blue shell mussels (*Mytilus edulis*), flat oysters (*Tiostrea lutaria*), pacific oysters (*Crassostrea gigas*) and seaweed species (*Macrocystis pyrifera*, *Ecklonia radiata*, *Gracilaria sp.*, *Pterocladia lucida*), using the standard long line and anchoring systems.
 - (e) Disturb the seabed with anchoring devices.
 - (f) Discharge to seawater biodegradable matter and organic waste during harvest.

The term sought for the consent is 20 years.

The location

8. The general location of the site is towards the south-eastern end of Port Underwood in the Marlborough Sounds. Within that area, it sits at the south-western end of Whangatoetoe Bay and south of Horahora Kakahu Island, (which has important historical connections as it is where local chiefs signed the Treaty of Waitangi in 1840).
9. To the east of the proposed site, and within Whangatoetoe Bay and Pipi Bay, are existing marine farms 8451 and 8452. Following the coast around to the south-west, there are further marine farms in Cutters Bay, being farms 8453, 8454 and 8455.
10. A prominent reef system is located between Whangatoetoe Bay and Cutters Bay to the south, which both the existing farms and the proposed farm would avoid.
11. The surrounding land is planted in exotic forest, which is owned by Whataroa Forestry Development Limited. The AEE describes the adjacent land as having *"remnant grassland and low shrub indigenous species... in exposed positions before forest on moderately steep hill country is encountered."* The adjacent land is not recognised in the MSRMP as having outstanding landscape values, and Mr Sutherland's evidence notes that this land has *"long been utilised, initially for pastoral farming and then converted to exotic forestry."*

Activity Status

12. As noted above, the applicant amended its application at the hearing by reducing the seaward boundary of the marine farm and the overall area of occupation. No issue arose with the amendment as it was entirely within the scope of the application and was designed to reduce the overall effects of the application and change its classification from a non-complying activity under rule 35.5 of the MSRMP to a discretionary activity under rule 35.4 of the MSRMP.
13. There was no dispute that, as now proposed, the application is a discretionary activity, and the need to consider the *"gateway test"* under section 104D no longer applies. This amendment also addressed one of the concerns expressed in the Allens' submission that the proposal did not comply with the MSRMP.

Section 104(1)(a) – Effects of the activity on the environment

14. The proposed activity has a number of potential effects on the environment, some of which were raised in submissions and all of which were discussed in the section 42A report. I consider each of these in the following discussion.

Ecological effects

15. The MSRMP identifies three ecologically sensitive habitats within the larger Port Underwood area. There is an area of habitat which is important for Hector's dolphin and two areas which are identified for tube worm mounds. None of these areas coincide with the area of the subject site.
16. However, an environmental survey conducted in April 2013 identified significant habitats within the area originally proposed for the farm. The majority of the survey locations contained significant cover of red algae and others contained reef habitat. The original application was reduced to avoid reef habitat, but the proposed area still contains an extensive bed of red algae under it.
17. The effect of the establishment of a marine farm over red algae beds was raised as a concern, particularly through the section 42A report. The reporting officer noted that:

"Extensive beds of red algae are considered important to the local ecosystem because they provide habitats for a variety of species (including bi-valves, holothurians and fishes) and important food sources for others. Extensive beds are also important for fish recruitment as many fish species are known to lay their eggs in such habitat, especially when such habitat is in short supply. The diversity and abundance of species associated with this habitat on a regular basis is also important to the wider ecology."

18. The concern was that the relevant red algae species identified in the survey were known to be *"sensitive to sedimentation"* and the reporting officer was concerned that *"the establishment of a marine farm over this habitat will have an adverse impact in the species in the ecological values associated with it."*

19. This issue was also raised in the submissions of the Port Underwood Association and, indirectly, in the submissions of Mr and Mrs Sharp who raised concerns about the effects of sediment deposited by the farms on the ecological health of the seabed.
20. Given the potential significance of this issue, the applicant, through its expert witness Mr Davidson, produced detailed evidence about the impact existing marine farms were having on the health and density of red algae beds in this area.
21. Mr Davidson's evidence confirmed that much of the proposed farm area supports relatively dense beds containing a variety of red algal species and confirmed that red algae beds such as this (which range from 90% - 100% cover), are *"often regarded as biologically important because they represent a productive habitat and are often used as an egg laying medium by skates and rays."*
22. He then traversed the findings of previous studies on the impact of mussel farming on red algae beds. He said that earlier studies suggested avoiding such habitat because they were uncertain about the impact of mussel farming, but that more recent studies suggested that red algae beds can and do exist under marine farms in this area.
23. Mr Davidson's evidence then went on to describe the investigation that he had conducted for the present application, using drop cameras to investigate red algae distribution and abundance, both between, and under, existing farms in the area.
24. Based on that investigation he concluded the following:
 - (a) Much of the area was occupied by red algae with beds often comprising 40%-100% cover;
 - (b) Algae were absent or sparse from some areas surveyed;
 - (c) When present, red algae were most abundant between 8 metres and 16 metres depth.
 - (d) Red algae beds were most widespread and dense along the main reach of Port Underwood;

- (e) In Cutters, Whangatoetoe and Pipi Bays the percentage cover and presence of red algae declined. This appeared to correspond to increasing distance from the main reach, with areas well inside these bays supporting no red algae.
 - (f) Red algae was common under mussel backbones located near the main Port Underwood reach, however red algae was absent or less common, under backbones located in Cutters, Whangatoetoe and Pipi Bays.
25. Overall he concluded that *"there appears to be a relationship between red algae abundance and (a) distance from the main Port Underwood reach and (b) the presence of mussel farms. In areas close to the main reach, red algae were abundant and also grew under mussel backbones... In the bays where red algae declined or disappeared, mussel farms appeared to have an effect on their distribution and abundance."* He noted that it was unfortunate that there was no *"before"* data available to determine if the absence of red algae under farm 8452 in the Whangatoetoe Bay was natural or a result of the establishment of the farm.
26. He also noted that a *"before"* study did exist for marine farm 8451 located towards Pipi Bay. In a 1999 study red algae was not noted under the farm prior to its establishment but, in the present study, red algae were present under some of this farm, although most of the area occupied by backbones remained free of red algae.
27. It appeared that a possible conclusion was that marine farms had more impact on red algae in sheltered side bays, than they did in the main reach of Port Underwood. While Mr Davidson suggested possible reasons for this, understandably, these were only tentative theories.
28. Overall, the evidence presented suggested that there was less reason to assume that the establishment of a marine farm would have adverse effects on the red algae beds than had previously thought. Indeed, the section 42A report writer acknowledged that the evidence presented at the hearing did allay many of his concerns.
29. That said, it still appears likely that, in combination with other factors, marine farms may adversely impact on the health and extent of red algae beds and it is an area worthy of further study.

30. In my view, in light of the evidence that establishing a marine farm, on its own, does not necessarily affect the health of red algal beds, and in light of the information which might be gathered from an appropriate monitoring programme as is being proposed as a condition of consent, I consider that there is more to be gained by allowing the activity to proceed than not.
31. With the staging of development proposed by the applicant, and the comprehensive monitoring conditions imposed, there is unlikely to be a significant adverse effect on red algae beds which will not be responded to and addressed through the conditions requiring adaptive management. In addition, as a positive effect, there will be some useful data gathered, on a before and after basis, on the impact that establishing a marine farm has on red algae bed health.

Effects on navigational safety

32. None of the submitters directly raised navigational safety as an issue, although the submission of Mr & Mrs Dick did record that the area was used as an anchorage for large fishing vessels. The submissions focused more on the adverse impacts on recreational access. There were also submissions which commented on the farm being on a "headland", but did not go further to say whether this was an issue for navigational safety.
33. The Harbour Master, in commenting on the application, noted that the "*Admiralty Sailing Directions identified the general area as a safe anchorage for large vessels, but that that may "already be compromised by site 8451"*". As the farm lay within the safe distance from a navigation route to the noted safe anchorage, he recommended that the farm not be approved until the note regarding the safe anchorage was removed from the Admiralty Sailing Directions.
34. However, as emerged in discussion at the hearing, site 8451 had already affected the utility of the area for safe anchorage and the addition of the proposed farm would not materially exacerbate that situation. The applicant does not have the ability to alter the Admiralty Sailing Directions, nor did I think it reasonable to let this factor influence my decision on the consent when the existing situation was already compromised.

35. Given the amendment to the application, which reduced the seaward extent of the farm, and that, in practical terms, the farm "infilled" the coastline between farms 8453 and 8451 (except for avoiding an area of reef between farm 8453 and the proposed farm), it did not appear that the farm would materially impact on navigation routes from any particular points.
36. Although it was argued that the farm was located on a "headland", in my view, given the further extent that the headland to the south at Cutters Bay intrudes into Port Underwood, and the fact that Horahora Kakahu Island extends further into Port Underwood to the north of Whangatoetoe Bay than this "headland" does, a farm at this location would not have the same potential effect on navigational routes as might normally be the case for a farm located alongside a landform that juts into a bay.

Effects on public access and recreational fishing

37. An issue raised in several submissions and in the section 42A report, was the potential effect on access to the area for recreational use, in particular, recreational fishing.
38. The section 42A report noted that the eastern side of Port Underwood is comparatively remote and not subjected to the same degree of public usage as Waikawa Bay, Havelock or Picton. Furthermore, there are no dwellings, jetties or moorings in close proximity to the site.
39. However, the section 42A report also observed that it was "self-evident that the establishment of a marine farm in a position where none currently exists will have an adverse effect on public access and, although the public can still access between the lines and blocks, the establishment of a further marine farm in this location would hinder the ability of fishers to freely move around, and can drift through the area."

40. I accept those statements as correct. That said, my overall conclusion is that the application does not unduly interfere with recreational access. While some submissions stated this area was well used for recreational fishing, key areas for recreational fishing, including Robertson Point to the south, the reef to the south-west of the application site and Horahora Kakahu Island to the north, will remain available for recreational fishing. Furthermore, the provision, through the MSRMP, of areas in Port Underwood which are zoned to remain free of coastal marine farms, goes a long way to ensuring a reasonable allocation of space for the respective activities of recreational fishing and commercial marine farming. Thus, while I accept there will be some impact on recreational fishing, I have concluded it will not be significant.

Visual effects

41. The visual effects of this activity on the natural character and landscape of the area was touched on by submitters. Submissions acknowledged that the area was a *"desirable area for marine farming"* and that marine farms can, and do, occupy the sea surface within Port Underwood. The concern, which was most fully articulated in the Port Underwood Association submission, was at what point further expansion would *"impose an unacceptable impact"* on this part of the Sounds, including on remaining natural landscape values and the amenity values derived from them.
42. It was considered by the Port Underwood Association that the *"landscape assessment as submitted underplays the actual effects on landscape and amenity"* and that the existing marine farm would *"have significant visual impacts on the existing environment as it is placed around the headland, is an infill development creating a continued ribbon of marine farms (which is not currently the case)."*
43. However, in this regard, I concur with the section 42A report writer's conclusion which is that *"the new farm will not create new or more severe adverse effects on natural character than those that currently exist"*. The proposed farm will sit within an existing ribbon of aquaculture development that extends almost completely up the east coastline of Port Underwood and in front of a landscape that is quite modified by human activities. In this environment I accept that the extension will not be distinguishable against the existing aquaculture and development of the bay, except to the most frequent and closest of observers.

44. Furthermore, the presence of the reef, and of the Coastal Marine Zone One area around Horahora Kakahu Island, ensures that some areas of this eastern coastline will remain unoccupied so that this part of the coastline does not become an unbroken ribbon of marine farm development.

Effects on infrastructure (roading)

45. One of the issues raised by submitters¹ and by the section 42A report, was whether the establishment of the marine farm would have an adverse effect on the existing roading infrastructure. The concern arose because Port Underwood Road is a narrow windy road which already suffers damage from the existing use of the road including, in particular, by logging vehicles. The Council receives regular complaints from the public about road safety and damage to the road by commercial vehicles.
46. Council's roading authority, Marlborough Roads, considers that the Port Underwood Road is at, or near, capacity and, as a consequence, proposals by forestry interests to increase their use of the road have been declined. Marlborough Roads considers that Port Underwood Road is sustainable when carrying up to around 50,000 tonnes per year of product (be it marine or forestry), and estimates that current commercial usage is at this level.
47. The section 42 report writer therefore concluded that *"despite the small number of vehicle movements and the small potential volume, the demand for infrastructure and potential adverse effects on the roading network are more than minor"*.
48. This conclusion was responded to, both in the applicant's opening submissions, and in the evidence of Mr Sutherland. Mr Sutherland's evidence was that the aquaculture harvest from the site would total approximately 147 tonnes per annum and that this *"equates to around six truckloads per year"*.
49. Mr Clark submitted that *"the entire mussel production from Port Underwood is 3,000 – 4,000 tonnes annually, that is a figure less than 10% of the total allowable capacity... The additional traffic ... [to carry 147 tonnes per annum]... is infinitesimal."*

¹ E.g. by *Whatamonga Homestay Limited*

50. Mr Clark also pointed out that the Port Underwood Road is a public road and, citing *Contact Energy v Manawatu-Wanganui Regional Council*², he said "Road use is, in that sense, a species of permitted activity – permitted not by a district plan, but by the general law. Neither the terms of the district plan nor of a resource consent can purport to curtail that right, save with the express consent of the vehicle operator."
51. I had no evidence to confirm how the threshold of 50,000 tonnes annual capacity for the road was calculated by Marlborough Roads but in any event the applicant challenged whether the current level of activity was actually reaching this trigger. That said, it appears that the current level of activity on the road, whatever it may be, is causing damage. However, in my view, that is a matter for the Council roading authority to address through its decisions on the allocation of funding of road maintenance.
52. Given the almost infinitesimal increase in traffic which this proposal would generate, and given the impracticality of attempting to control the use of the road via a resource consent process, I decline to do so.
53. To attempt to control the effects of road use by declining consents for activities which need to use the road is to use a rather blunt tool. Use of the road could increase (or decrease) irrespective of any decision on this application. It also seems to me to be contrary to the sustainable management purpose of the RMA if appropriate economic development is thwarted because of possible adverse impacts on existing infrastructure when those effects are acknowledged to be almost immeasurable and where the appropriate forum for addressing them is by the road controlling authority deciding how best to source and allocate funding for the maintenance of its existing roading network.
54. Finally, it should be noted that the reporting officer also accepted that the identified amount of traffic generated by the proposal was so modest that it did not constitute a measurable adverse effect or a reason for turning down consent.

Cumulative effects

55. Some submissions raised the issue of cumulative effects and this issue was also addressed at the hearing by the Port Underwood Association.

² [2010] NZ EnvC 406 at para [51].

56. The Association's submission explained that their members considered that the current level of marine farm development had reached the point where further expansion would impose an unacceptable impact, both through the direct effects of the individual application and cumulatively with existing development.
57. The submission noted that approximately 44% of the Port Underwood coastline was fronted by marine farms and the concern was that additional marine farms would be visually dominant and would leave the community feeling disenfranchised. There was also a concern expressed about whether the carrying capacity of the marine environment had been reached.
58. The Association's thoughtful, and balanced, submission at the hearing expanded on those concerns and provided some anecdotal evidence that the establishment of marine farms in this area did not just preclude access from the coastal marine area which was directly occupied, but discouraged recreational use of areas adjacent to the marine farm, particularly between such farms and the coast.
59. While I was sympathetic with the concerns the Association had about what it described as *"the encroachment into the public commons"*, and its appeal for *"a comprehensive management plan for the future development of aquaculture within Port Underwood"*, in my view, the MSRMP does provide such a framework.
60. Significant coastal space is reserved by use of the Coastal Marine Zone One zoning to ensure marine farms cannot develop in those areas. Furthermore, the need to avoid important habitat such as reefs, provides a further de facto restriction on where marine farms can establish, as does the requirement to have regard to navigation routes, and the non-complying status of marine farms which extend beyond 200 metres.
61. If there is to be a substantially different allocation of space for potential marine farming, in my view that is an exercise which must be discussed by the community as a whole through the regional plan development process. I do not think it is as appropriately addressed through the case by case assessments undertaken for individual resource consent applications which are best directed to the site specific issues raised by the particular proposal being considered, such as the effects (including cumulative effects) on the physical and ecological environment, on cultural or historic values, or on navigational safety.

62. In terms of the concern about potential cumulative effects on carrying capacity within this body of water, it appears that, except for very general submissions, this application did not raise the same level of concern about adverse effects on adjacent marine farms that have been raised in other hearings.
63. The Port Underwood submission noted that, compared with Pelorous Sound, there had been *"relatively good performance, growthwise in the Port Underwood area"*. However, Mr and Mrs Dick's submission did record that *"the more marine farms that had been approved has caused much slower growing times in existing marine farms in the area"*. In making this statement they said they were drawing on 28 years of marine farming in Port Underwood.
64. However, again, I received no hard evidence to suggest that granting consent to this particular farm would have material adverse effects on production from adjacent marine farms. I did hear evidence from Mr Davidson which reiterated evidence given in previous hearings that, at the farm level, phytoplankton depletion does occur, but is generally only measurable within the farm itself, and reduces the productivity of that farm. There would only be a low likelihood that a farm would impact its neighbour. There are, however, events and factors that influence productivity at a larger scale. For example large scale weather patterns such as La Nina and El Nino affect production. Farm management practices such as line spacing, crop seed densities, crop source and the like, can also have major effects on farm growth rates.
65. In short there is no clear evidence that this area of the Sounds has reached its carrying capacity and marine farm productivity is, at present, more likely to be linked with seasonal and climatic events, or the farming practice of individual farmers, than by the number of consents granted overall.
66. Overall, I could see no reason which suggested that this particular marine farm would, in conjunction with others, have cumulative effects on the amenity values of this area or on its carrying capacity, which tipped the balance against the grant of consent.

Section 104(1)(b) – Relevant policy and planning documents

67. There was relatively little focus in the hearing on the applicable planning provisions. In part, this may have been because, as presented at the hearing, the activity was a discretionary activity, so, in practical terms, it was the particular effects of that application which were likely to determine the outcome. Furthermore, the relevant plan provisions themselves involve a weighing up of potential adverse effects of the application against the benefits to be derived from appropriate development in the coastal marine area.
68. There is a reasonably comprehensive discussion of the relevant policy statements and plan provisions in the section 42A report and no party sought to rebut that analysis. Rather, the submissions focused on whether this particular proposal was an appropriate activity given its effects on ecological values, landscape, marine habitats and sustainability, natural character, public access and recreational values, all of which are issues addressed in Objective 1 of Chapter 9 of the MSRMP and the associated policies.
69. In terms of safeguarding the integrity, form, functioning and resilience of the coastal environment and sustaining its ecosystems, as required by the New Zealand Coastal Policy Statement 2010 (NZCPS), and by objectives and policies in the MSRMP such as Objective 4.3.1 and Policy 4.3.1.1 and 4.3.1.2, the real focus in this case was on the impacts on red algae beds below the proposed farm.
70. The reporting officer's initial view was that the proposal would at least be inconsistent with the objectives of protecting important ecological habitats, but his view modified after hearing the evidence of Mr Davidson which suggested that red algae beds were generally able to be maintained under marine farms except possibly in the more sheltered bay areas. I accept Mr Davidson's evidence as cogent, and, with the addition of the proposed staging of the implementation of the marine farm, and the volunteered condition requiring removal of it should there be adverse effects on red algae beds, I am satisfied that the relevant objectives and policies are not contravened by the grant of consent.

71. I also note that the Marlborough Sounds Regional Policy Statement expressly supports research being undertaken into the effects of aquaculture on the sustainability of marine habitat. I consider the conditions relating to monitoring of red algae bed health will contribute to such research.
72. The NZCPS, through Objective 1 and Policy 18 promotes the maintenance and enhancement of public access to, and recreational opportunities within, the coastal marine area. The Marlborough Regional Policy Statement and the MSRMP also promote public access as an important consideration, particularly in areas of high public usage, or where there is some public focal point or destination in the area. However these documents also recognise that development within the coastal marine area is anticipated. For example, Policy 7.2.10(d) anticipates allocation of space for aquaculture based on *"marine habitats, sustainability, habitat protection, landscape protection, navigation and safety, and compatibility with other adjoining activities"* and Policy 8.3.1.3 only seeks to prevent *"marine farms that restrict public access in the coastal marine area where it is subjected to high public usage"*.
73. In respect of public access, the reporting officer was concerned that navigation documents indicated that this was a safe anchorage and navigational route *"despite existing aquaculture preventing its use for this purpose"* and on that basis suggested it was possible the proposal was not consistent with policies relating to public access in Chapter 8 of the MSRMP.
74. I do not concur with that conclusion for the reasons discussed in paragraph 34 – 35 above. I must assess this application in the environment as it is. Whangatoetoe Bay is not, at present, a main navigational route and granting this application does not materially change the position.

75. The same issues arise in respect of the policies and objectives in the MSRMP which seek to promote safe navigation. Again the concerns of the Council focused on the identification of this bay as a safe anchorage, whereas I have found this is already compromised by existing marine farms. With the amendment the proposal lies within the 200 metre distance from mean low water springs and is not on any other identified navigation route. It also does not intrude into the Port in a way that would impact on direct boating access along the main reach of the Port because marine farms and headlands to the south and Horahora Kakahu Island to the north, already extend further out into that main reach of Port Underwood. Given these considerations, I do not consider that the proposal is contrary to the relevant navigation matters in the policy and planning documents.
76. In respect of policies and objectives relating to the safe and efficient operation of community infrastructure, including the roading network, interestingly, the section 42A report writer did not conclude that the proposal was inconsistent with, or contrary to, any relevant objective or policy. This was because the MSRMP policies only suggested the cost of roading upgrades were to be imposed on an applicant that was proposing a land use activity (Objective 18.2.1.1). It appears that, at the time of drafting the MSRMP, it was probably not recognised that some coastal marine based activities could also put pressure on the roading network. However, in light of my conclusions about the minimal impact this activity would have on the roading network, it would be difficult to see that policies of this kind were contravened, even if they did extend to water based activities.
77. In respect of natural character and landscape values, the reporting officer concluded that the proposal was consistent with the MSRMP primarily because the proposal was to establish a marine farm in an area already compromised by existing development and the proposal would not, in his view, create any new adverse landscape effects or effects on amenity values. Nothing was presented at the hearing which, in my opinion, challenged this conclusion.
78. Although tangata whenua and heritage issues were not directly addressed at the hearing, the MSRMP, and the Iwi Management Plan of Ngati Koata recognise and provide for the relationship of Marlborough's Maori to their culture and traditions, and their role as Kaitiaki in the coastal marine area.

79. No evidence was adduced at the hearing that the particular site was of significance to iwi or that use of it would directly compromise Maori cultural values. I have already noted that Horahora Kakahu Island is a significant place because of its connection with the signing of the Treaty of Waitangi, but it is surrounded by an area zoned Coastal Marine Zone One and so will not be the subject of marine farm development. While Mr Allen's submission stated the proposal was "*contrary to the Treaty of Waitangi*", it did not elaborate on why that was so, nor did it identify any relevant resource management concern in this regard. There was accordingly no basis on which I could conclude the proposal conflicted with any relevant policies on tangata whenua or heritage issues.
80. In short, my conclusion, having heard the evidence, is that nothing in the proposal would conflict with, or undermine any objectives or policies in the relevant planning and policy documents.

Section 104(1)(c) – Any other matters

81. The section 42A report did draw my attention to the potential for this decision, in a loose sense, to form a precedent for other applications to extend farms within Port Underwood. One of the concerns raised in the section 42A report was that the applicant was seeking to extend seaward well beyond 200 metres from the mean low water springs. Now this is no longer the case, and it is a fully discretionary activity, rather than a non-complying activity, I do not consider that this decision has any real precedent value.
82. It is obviously correct that the Council cannot prevent further applications being made but, within this particular area, unless the application is to extend beyond 200 metres from mean low water springs, there are practical impediments to there being further applications granted. The only significant unoccupied space is to the south-west of this application site and that has been avoided by this applicant because of the existing reef on the seabed. The presence of this reef is likely to prevent further applications for infill in this area.

83. Similarly, if one goes north, the existence of the Coastal Marine Zone One around Horahora Kakahu Island, will prevent further development there. Any other development in this particular location would, therefore, in all likelihood, be non-complying and so would be readily differentiated from this one which is a discretionary activity. For these reasons I am satisfied there is no real risk of this decision setting an inappropriate precedent.

Part 2 matters

84. The above discussion of environmental effects, and of policy and planning matters, are all helpful in directing my decision, but my decision is still subject to an overall judgment under Part 2 of the RMA, having had regard to the relevant matters in sections 6, 7 and 8 and whether, overall, it promotes the sustainable management purpose of the RMA.
85. As the section 42A report writer's report notes, the relevant section 6 and 7 matters reiterate matters which have already been discussed when considering potential effects on the environment.
86. The reporting officer's preliminary view was that potential effects on the red algae beds, and on the recorded safe anchorage and navigation route, would mean the proposal would not contribute to sustainable management of the coastal marine area. However, at the hearing, and in light of the further evidence and modifications to the proposal, those concerns were allayed and I came to the view that with sufficiently robust conditions for monitoring the impacts on the red algae bed below the proposed farm, and then for limiting and/or reducing the extent of the farm should it be adversely affecting those beds, the consent could be granted.
87. On the positive side, Mr Madsen's evidence explained how the marine farms operated by the applicant and by related entities, employed eight fulltime permanent staff and harvested between 3,000 and 4,500 tonnes of mussels annually to go to processing firms in the Blenheim and Motueka region. Clearly this activity sustains an important source of income and employment for the region, so where additional farms can be implemented without adversely affecting important marine habitats, navigation safety and the like, there is merit in allowing their establishment.

88. A further benefit arising out of this particular proposal is that the applicant has agreed to undertake a robust monitoring programme which will assist the Council in better understanding the potential effects (if any) of marine farms on red algae beds.
89. For all these reasons I am satisfied that, when looked at overall, granting of the proposal would be consistent with Part 2 of the RMA.

Conditions

90. One of the more complex aspects of this hearing was the development of conditions relating to the staged implementation of the consent and the monitoring of effects on red algae beds. In all other respects the conditions proposed are standard conditions for marine farm consents in this district and no issue was taken with them by any party. It was agreed by all that the adaptive management conditions imposed to ensure the health of the red algae beds was maintained, needed to be as objective and robust as possible in order for the Council to monitor compliance, and, if necessary, enforcement of the conditions.
91. Following the hearing, and taking on board the expressed concerns to achieve robust and enforceable conditions, the applicant provided a set of revised conditions which were then further developed with input from Council's reporting officer.
92. The Port Underwood Association then provided detailed submissions on those conditions with a number of suggestions for amendment.
93. The primary points made in the Association's submission are as follows:
 - (a) Rather than put in the full complement of lines for each stage, then removing half of them if adverse effects are shown, the applicant should only install half the lines for each stage, with additional lines being permitted if the trigger point signalling adverse effects is not reached.
 - (b) The eastern sector of the marine farm should be developed before the western end because; it is furthest from the reef, it would be more likely to be seen as a continuation of the existing farms and so would have less impact on users of the area and, given the likely effects on water currents, it would be a more precautionary approach to develop this area first before the western section.

- (c) There should be four control sites for monitoring of effects, not two;
 - (d) The adjacent reef and cobble areas should be included in the monitoring because they are important habitats;
 - (e) The applicant should also have to monitor the benthic community which the red algae bed supports and more rigorous methodology should be employed to monitor the health of the inhabiting benthic communities;
 - (f) A 20% decline in mean percentage coverage of red algae is too high a trigger level and, instead, it should be a 10% trigger.
 - (g) The farm should be fully developed during the monitoring period to ensure *"realistic mussel growing conditions and operations"*.
 - (h) Amendments to the monitoring programme were suggested including a minimum of four harvest cycles of monitoring after the full establishment of the farm.
94. Those points were responded to in commentary from Mr Davidson attached to the applicant's reply on conditions. In respect of the issues raised by the Association, Mr Davidson's views were as follows:
- (a) In respect of the suggestion that the farm be developed in what would be effectively four stages, with half of the lines in each block being established and monitored before a full complement of lines were installed, Mr Davidson rejected this as being overly cautious given his evidence that along the main Port Underwood channel, red algae beds remained under farms.
 - (b) In respect of developing the eastern block before the western block, he considered that, based on his investigations, red algae beds are less likely to be impacted on the western block and therefore establishing it first *"represents a more precautionary approach as it represents a more robust location and more likely to recover quickly should adverse impacts be detected."* He also considered that it was unlikely the reef would be impacted by the location of the western end of the farm and so should not determine which side should be developed first.

- (c) In respect of the proposal by the Association that there be four control locations, he responded that two of the suggested locations supported little or no algae as they were too deep to support such species. While he accepted the Association's view that control sites are of prime importance, he believed that the two control locations proposed were sufficient and he also noted that, as data would be collected from the non-developed block of the farm, it would act as an additional control until it, too, was developed.
 - (d) In respect of reef monitoring, he said the reef was located well outside the 20 metre impact zone of mussel farms and therefore monitoring of the reef was not justified.
 - (e) In respect of the suggestion that the benthic community associated with red algae beds be monitored in addition to the coverage of red algae itself, he considered this was not a *"critical part of impact monitoring"*. Only one or other need to be monitored as the health of one was related to the health of the other and to do both was to effectively duplicate effort.
 - (f) In respect of the chosen trigger level of 20% decline relative to the control sites, he said that this figure had been chosen to avoid natural variation in the environment. He noted that it is *"probable that red algae cover fluctuates throughout the year"*, and the chosen trigger level of 20% had been selected as such a level of decline would *"likely be as a result of an impact rather than natural variation"*.
 - (g) In respect of the timing and number of sample events, he said he had suggested three sample events between stages, which represents a minimum of 4 years, being a timeframe in which he expected impacts of the farm would be detected. He accepted the Association's suggestion that sampling should be a minimum of 6 weeks after each harvest as being an appropriate minimum period.
95. I have considered the issues raised and in deciding on the final conditions for the staging of development, I have had regard to the evidence and further submissions provided, and also to the object of these conditions, which is to protect the red algae beds and to ensure that the proposed marine farm does not adversely impact on the red algae bed beneath the farm.

96. However, in imposing the conditions, I bear in mind the evidence that red algae is present under well-established marine farms in Port Underwood and it is probable that the proposed marine farm will not adversely impact on the red algae bed. However, even if adverse effects are observed, it is likely that the monitoring which is proposed will increase knowledge about the impact of marine farms on red algae bed health and will therefore have utility from that perspective.
97. The proposed conditions are intended to stage development, only allowing full development of the site if repeated monitoring of the stages demonstrates that material adverse effects are not occurring. If they are occurring then the second stage of the development cannot occur and there is a mechanism for removal of some, or eventually all, of the installed long lines if the existing structures are compromising the health of the red algae bed.
98. It is important that someone suitably qualified undertakes the monitoring, that is recognised by all parties. I have amended the condition proposed to remove the subjective element of the appointed person's qualifications being to "*the satisfaction of the Manager Regulatory – Marlborough District Council*", and instead, more clearly outlined the qualifications which are expected of the person undertaking the work.
99. I have then defined that person as "*the appointed expert*" and used this term in the following conditions so it is clear who should be undertaking the further monitoring requirements and preparing the reports which are required under subsequent conditions.
100. In respect of the control sites, I accept that two control sites are adequate. This is Mr Davidson's recommendation and he has investigated a considerable area of the seabed in the vicinity of the proposed marine farm. I consider that he is well placed to identify whether two control sites would be sufficiently representative and also accept his advice that the two additional locations suggested by the Port Underwood Association do not have comparable coverage of red algae.

101. Condition 19 explains the timing of reports required at each stage of development. However, in the draft conditions supplied to me, there seemed to be confusion as to whether the reporting should be undertaken at the conclusion, or at the commencement, of harvest cycles. It seemed to me that it was intended it be undertaken at the conclusion of a harvest cycle, but there also appeared to be an intention that surveys were undertaken at no greater than annual intervals. For that reason, to ensure that the surveys are undertaken as frequently as anticipated, I have retained the requirement that the surveys be done at the conclusion of the harvest cycles, but with the back stop that in any event, they must be done no less frequently than annually.
102. In terms of setting the trigger level, while I am sympathetic to the Association's request for this to be a 10% decline in cover, I accept that such a small decline in percentage cover could occur as a result of natural variability. It would be unfair to impose on the applicant such a burden when, in any event, once the 20% threshold is reached, the applicant must remove lines, or, in a worst case scenario, remove the entire farm. For such draconian consequences, I think a robust and material change in coverage should be required and therefore accept the proposal that the trigger level be a 20% decline relative to the control site.
103. I also accept that, if the consent has identified the sustainable level of development (whether at Stage 1, 1A, 2 or 2A) which is where ongoing surveys do not show a decline in red algae bed coverage, then it is appropriate to decrease the survey frequency to 5 yearly surveys after two biennial surveys show no material change in red algae bed cover.
104. In respect of the other issues raised by the Association, I am satisfied that it is appropriate to develop Stage 1 in full first, then reduce the lines if the trigger level is met. This is both because the applicant has already agreed to curtail the normal position, which is that it could implement its marine farm in full on the grant of consent, and because of the quite rigorous constraints on the applicant should trigger levels be reached. In saying this I also have regard to the fact that the evidence showed that, in general, there did not appear to be an adverse effect on red algae beds where marine farms were established over them. For these reasons a precautionary, but not the most precautionary, approach is in my view appropriate.

105. In respect of the proposal to develop the western block before the eastern block, I accept that this represents a more precautionary approach as it is a more robust location and is more likely to recover quickly should adverse impacts be detected. Accordingly, I am content that Stage 1 permits the western farm block to be developed prior to the eastern block.
106. In terms of reef monitoring, Mr Davidson provided comprehensive evidence on the extent of the impact zones of mussel farms. Given the distance of the reef from the farm's impact zone, I accept that monitoring of the reef is not justified.
107. In respect of the proposal to monitor the benthic community associated with red algae beds, as well as the presence of red algae itself, I accept Mr Davidson's opinion that the two are inter-dependent, so that monitoring both aspects would largely be a duplication of effort and unnecessary. If red algae bed health is maintained, it is reasonable to assume that the benthic communities it supports are also being maintained.
108. In respect of the timing and number of sample events, I accept that, following initial monitoring, the requirement for three sample events between stages, representing a minimum of 4 years of operation of the marine farm, is substantial. I have also accepted that surveying should occur after each harvest, but with the rider that in any event the survey should be conducted at no greater than annual intervals in order to ensure that a delay or omission to harvest some lines will not unduly lengthen the time periods between surveys. It will be up to the applicant to manage the timing of the survey within those constraints.
109. For completeness, I note that there is potential for the applicant to establish part of the farm and then be required to remove it entirely. Normally, it would not be lawful to grant a consent on such terms. However, this is a condition which has been volunteered by the applicant on an *Augier* basis, and I consider it should go a long way to allaying any residual fears about the potential impact of the farm on the important habitat comprised by the red algae beds beneath the farm.

110. My conclusions on the above issues are reflected in the conditions that follow. I am satisfied that, with the imposition of these conditions, the grant of consent is appropriate and meets the purpose of the RMA.



R M Dunningham
Hearing Commissioner
23 December 2013

CONDITIONS OF CONSENT FOR U130217

1. This permit shall expire on 20 December 2033.
2. Without restricting the consent holder from reasonably undertaking the activities authorised by this resource consent, the consent holder shall not undertake the activities in such a way that would effectively exclude the public from the permit area.
3. There shall be no feed artificially introduced into the marine farm unless a specific coastal permit for discharge is firstly obtained.
4. The occupancy shall be limited to the 6.185 ha area illustrated on the plan **attached** to this consent as **Appendix A**, and confined to the area specified within the schedule of New Zealand Transverse Mercator co-ordinates given on the plan.
5. The structures shall be limited to anchors, ropes, droppers, cages, racks, floats and lights associated with the farming of the approved species within the boundaries of the consent area. The number of lines shall be at the discretion of the consent holder, but shall not exceed the number shown on the attached plan, the separation distances between lines shall be no less than as shown and the lines shall be oriented as shown. However the extent to which these structures can be established shall remain subject to conditions 13 – 28 below.

The plan referred to in this condition showing the structure layout of the marine farm is **attached** as **Appendix B**.

6. The placement of marine farm lighting and marking shall be approved by the Harbourmaster under his Maritime Delegation from the Director of Maritime New Zealand pursuant to Sections 200, 444(2) and 444(4) of the Maritime Transport Act 1994. The approved lighting plan is **attached** as **Appendix C**.
7. The consent holder shall prepare to the satisfaction of the Marlborough District Council, a safety management plan and provide it to the Marlborough District Council within six months of the commencement of this consent. The safety management plan shall include but not be limited to:
 - (a) Design plan for the layout and structure of the marine farm;

- (b) A maintenance plan, suitable for the moorings, navigational lighting and associated equipment (ie radar reflectors, reflective tape, etc), together with a record system of all maintenance undertaken. This is to be made available for checking by the Harbour Master at any time; and
 - (c) A mooring design plan for the size of the structure in the position intended with respect to water depth, tides and currents, sea and swell conditions and seabed composition. Proof of fit for purpose rests with the consent holder.
8. Each end of the most landward and most seaward longlines shall carry the name of the consent holder, and the site number issued by the Marlborough District Council (# 8628), displayed in bold clear letters in such a manner that they can be clearly read from a distance of 10 metres.
 9. The consent holder shall maintain all structures to ensure they are restrained, secure and in working order at all times, so as not to create a navigational hazard and take whatever steps are reasonably necessary to retrieve any non-biodegradable debris lost in or from the permit area.
 10. Each buoy within the approved area shall be permanently branded so as to clearly identify its ownership.
 11. Where there are more than two blocks of longlines and accessway of no less than 50 metres in width, free of surface structures, shall be provided between blocks.
 12. Upon the expiration, forfeiture or surrender of the coastal permit, the consent holder shall remove all structures, rafts, buoys longlines, blocks and all associated equipment from the site and restore the area as far as is practicable to its original condition, and to the reasonable satisfaction of Council. If the consent holder fails to comply with this clause, Council may arrange compliance on their behalf and at the consent holder's expense.

Adaptive management/staged development

13. The monitoring, reporting and review required by conditions 14 - 19 below, shall only be undertaken by a qualified marine biologist/ecologist with at least 5 years' experience in undertaking scientific surveys of marine habitat, or having such experience as is otherwise confirmed as sufficient for this purpose by the Marlborough District Council ("**the appointed expert**").

14. Prior to installation of any structure, the consent holder shall have the appointed expert conduct a baseline survey of the area of the proposed marine farm, together with two control sites selected in accordance with condition 16 below, to ascertain the extent and health of the red algae beds beneath the farm.
15. The survey shall be designed to enable replication and statistical comparison between subsequent surveys.
16. Two control sites shall be selected by the appointed expert for the purposes of monitoring effects on the red algae beds. They must have similar characteristics and red algae cover to that beneath the marine farm. The control sites shall be free from the direct influences/effects of adjacent aquaculture activities. One control site shall be to the north of the marine farm and one shall be to the south of the marine farm.
17. All monitoring reports prepared by the consent holder pursuant to these conditions shall include drop camera images that have been assessed by the appointed expert, to ascertain the percentage cover of red algae. The data obtained shall be produced in a report, in table form, and will include a photo number, GPS fix, percentage cover of red algae, mussel debris percentage cover (if any) and description of substrata (that is visible). The location of all photo points shall be displayed on a map attached to the report.
18. All monitoring reports prepared by the consent holder except the initial report, shall assess the health and extent of the red algae beds under the marine farm in comparison to previous reports. The appointed expert who prepares the report shall assess and indicate the impacts of the aquaculture activity on the red algae beds and provide a conclusion as to whether the trigger level described in condition 29 below has been reached.
19. The monitoring reports described in condition 17 above shall be produced and provided to the Marlborough District Council at the times indicated below:
 - (a) Baseline report – to be provided prior to the installation of any structures at the site.
 - (b) Stage 1 reports – to be provided at the at the conclusion of each harvest cycle, for at least three harvest cycles, but in any event not less frequently than annually on three occasions following the first seeding of Stage 1 structures.

- (c) Stage 1A reports (required only if the trigger level described in condition 29 is reached for Stage 1 and structures are removed to comply with the Stage 1A Scheme Plan) – to be provided at the conclusion of each successive harvest cycle, for at least three harvest cycles, but in any event not less frequently than annually on three occasions following the first seeding.
- (d) Stage 2 reports (required only if the trigger level described in condition 29 is not reached after at least three Stage 1 monitoring reports have been undertaken, and additional structures are established in accordance with the Stage 2 Scheme Plan) – to be provided at the conclusion of each successive harvest cycle, for at least three harvest cycles, but in any event not less frequently than annually after the first seeding of Stage 2 structures.
- (e) Stage 2A reports (required only if the trigger level described in condition 29 is reached after Stage 2 is implemented and structures are removed to comply with the Stage 2A Scheme Plan) – to be provided at the conclusion of each successive harvest cycle, for at least three harvest cycles, but in any event no less frequently than annually following the initial seeding of Stage 2A structures.
- (f) Ongoing reporting (required only once the sustainable carrying capacity of the site in terms of effects on red algae beds has been determined in regards to the intensity of development, ie Stage 1, 1A, 2 or 2A) – to be provided biennially and, if the trigger level has not been reached in that period, thereafter at 5 yearly intervals for the remaining term of the consent.

Stage 1 development

- 20. After production of the baseline report referred to in condition 19 above, the consent holder may develop Stage 1 in accordance with the plan labelled "*Layout Details Stage 1*" **attached as Appendix D**. This is the installation of seven longlines.
- 21. After the first harvest of any crop from Stage 1, but in any event no later than one year from seeding this stage of the farm, monitoring by repeating a survey of the area under Stage 1 and the control site shall be undertaken by the consent holder.

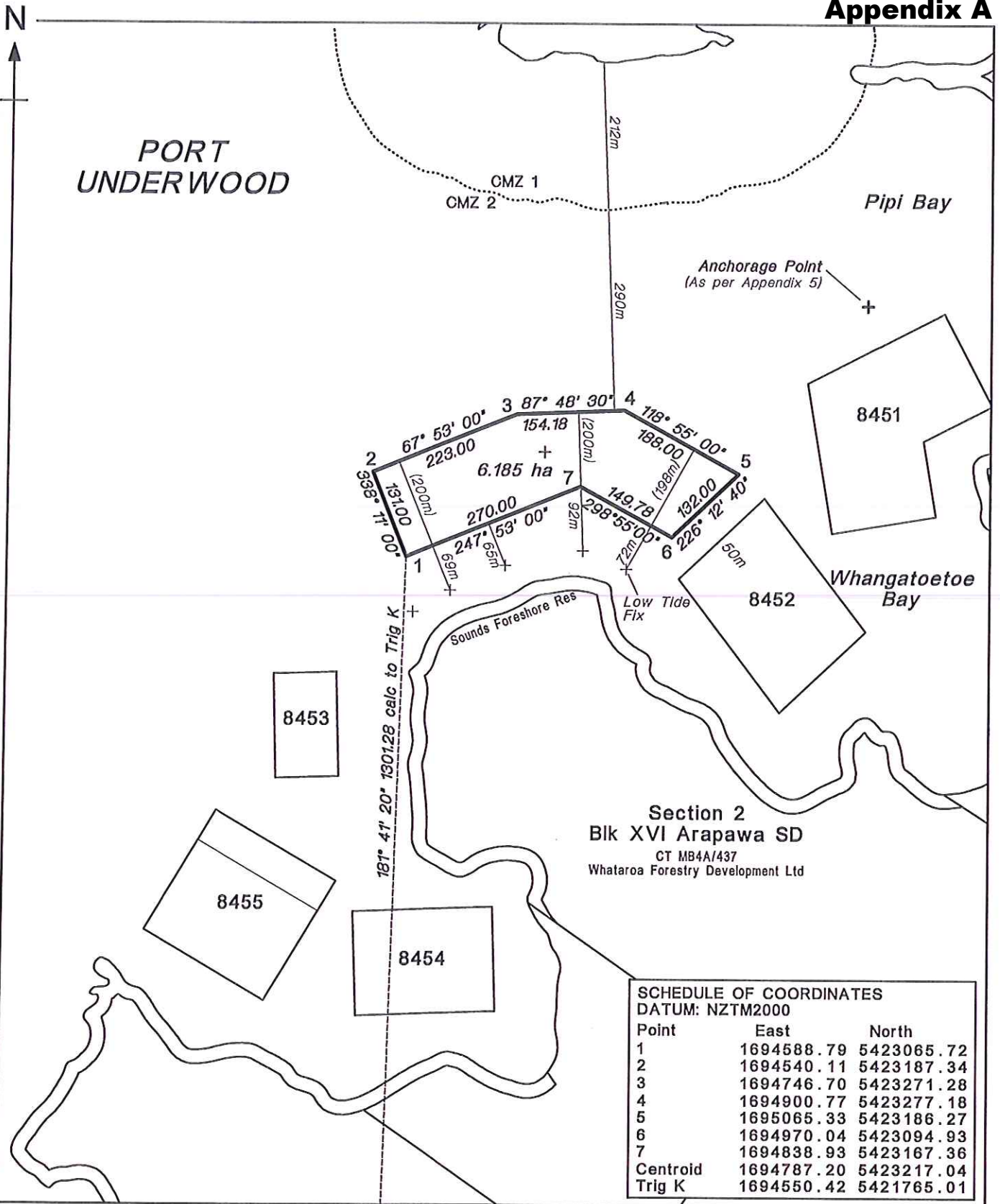
22. The results of that survey shall be provided to the Marlborough District Council in a report in the same format as in the initial report as required by condition 17.
23. Should the adverse impact trigger level described in condition 29 below, be reached or exceeded when that report is provided, or when any of the subsequent monitoring reports required under condition 24 are undertaken, then the consent holder shall, as soon as is practicable, remove the alternate longlines so that the remaining lines shall be as shown on the plan labelled "Layout Details Stage 1A" **attached as Appendix E.**
24. A survey and monitoring report shall be repeated after each successive harvest cycle concludes for the first three harvest cycles on Stage 1, but in any event, the intervals between each survey shall be no more than one year from the first seeding of the farm.
25. If the adverse impact trigger level described in condition 29 below is reached again during monitoring of the reduced layout in Stage 1A, then, as volunteered the remaining long lines shall be removed and the consent shall be surrendered. Stage 2 may only be developed if the Marlborough District Council has confirmed in writing that it has received a report which complies with condition 17 and which confirms that the adverse impact trigger level has not been reached for Stage 1 on any of the three successive reports produced after seeding of the lines and no reduction of lines has been required.
26. In the event that the adverse impact trigger level is reached as identified through monitoring and reporting on Stage 2, then the alternate lines shall be removed as soon as is practical, so the remaining lines shall be as shown on the plan labelled "*Layout Details – Stage 2A*" **attached as Appendix F.**
27. In the event that monitoring identifies that the adverse impact trigger level is reached on Stage 2A, then the remaining long lines on Stage 2A shall be removed as soon as practicable, returning the farm to the layout details for Stage 1 as shown in Appendix D.

28. Upon finalising the sustainable intensity of development at the site (ie Stage 1, 1A, 2 or 2A), the consent holder shall then undertake a bi-ennial survey of the site in accordance with condition 19 above. If, on the second bi-ennial survey, the trigger level has not been reached for any survey to that time, including the most recent survey, then the surveys thereafter will only need to be undertaken 5 yearly for the remaining term of the consent.
29. The adverse impact trigger level is a decline in mean percentage cover of red algae of more than 20% relative to the control sites.
30. In accordance with section 128 of the Resource Management Act 1991, the Marlborough District Council may, at the time(s) specified in the table below, review the conditions of consent by serving notice of its intention to do so for one or more of the purposes specified in the table below.

Purpose	Time(s) of service of notice
To deal with any adverse effect on the environment which may arise from the commencement of the consent and which cannot be adequately avoided, remedied or mitigated by any term or condition incorporated within the consent, pursuant to the provisions of section 128(1)(a)(iii) of the Act.	At any time
To require the consent holder to adopt the best practicable option to avoid, remedy or mitigate any adverse effect on the environment relating to the activity.	On any anniversary of the granting of this consent.
To review the extent of structures, length of lines and number of backbones at site [# 8628]	On any anniversary of the granting of this consent.
To modify the lighting plan to improve the safety and/or visibility of the marine farm.	At any time.

Advice notes

1. Pursuant to section 36 of the Resource Management Act 1991 and the Marlborough District Council schedule of fees, the consent holder will be responsible for all actual and reasonable costs associated with the administration and monitoring of this resource consent.
2. As this is new water space for aquaculture an undue adverse effect test on fisheries resources will be required. This process involves the Marlborough District Council making application to the Ministry of Primary Industries and asking for a decision. This request is placed with the Ministry on the closing of the appeal period. No aquaculture activities can commence until the Ministry's decision is provided. If the Ministry sees fit to modify the Council decision or overturn the decision, the Ministry's decision takes priority over any decision of Council.

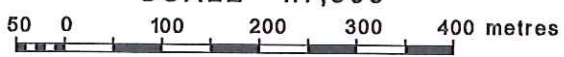


PALMS

Proposed Coastal Permit

Port Underwood

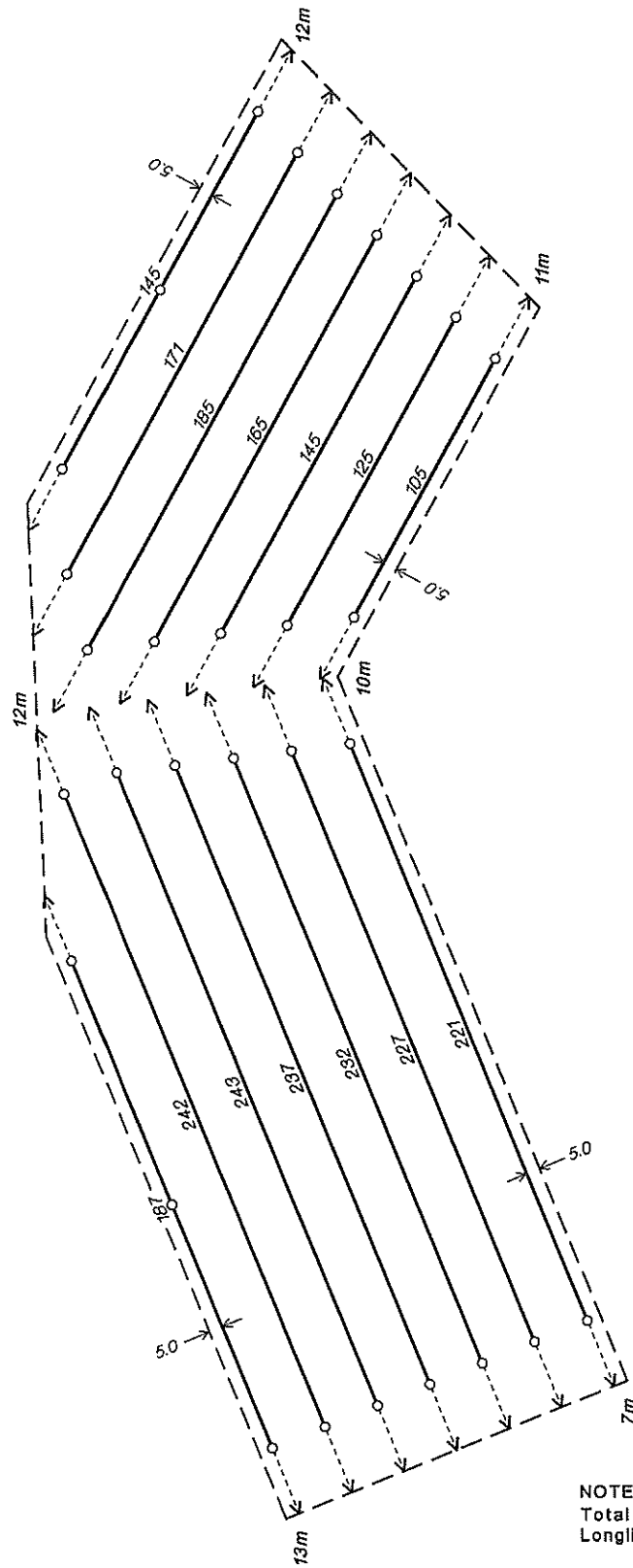
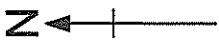
SCALE 1:7,500



23 October 2013

MF_2292e

Whangatoetoe Bay



REFERENCE

- Orange Float
- △ Anchor
- - - - - Anchor Warp (32mm Rope)
- Backbone (24-28mm Rope)

NOTES

Total Longlines = 14
 Longline Spacing = 19.33m (Eastern Block)
 20.17m (Western Block)
 Backbone length = as shown
 Total Backbone Length = 2630m
 Warp Surface Loss = 25m
 Warp Ratio = 2:1 min



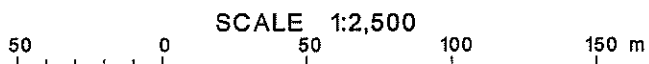
PALMS

11 November 2013

Layout Details - Stage 2

Proposed Marine Farm

Port Underwood

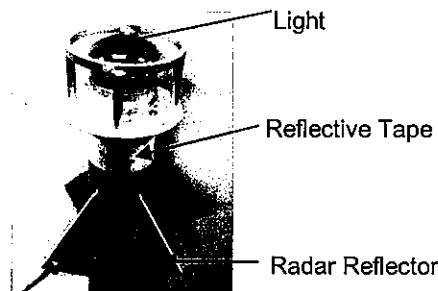


MF_2292f

Marine Farm Lighting and Marking Plan – U130217 (Site no.8628) Stage 1

I, Alexander van Wijngaarden, Harbourmaster of Marlborough District Council, hereby approve, under Maritime Delegation from the Director of Maritime New Zealand pursuant to Sections 200, 444(2) and 444(4) of the Maritime Transport Act 1994, the lighting and marking associated with coastal permit U130217(Site no.8628), located in Whangatoetoe Bay, Port Underwood, as follows:

1. That each end of each longline display an orange buoy, as shall the middle of each of the seawardmost and landwardmost longlines.
2. That a yellow light, radar reflector and a band of reflective tape 50 millimetres in width be displayed in the positions marked 'A' on the attached structures plan. The lights shall be solar powered and shall have the following characteristics: F1 (5) Y (20 secs) 1m 1M.



3. That radar reflectors and a band of reflective tape 50 millimetres in width be displayed in the positions marked 'B' on the attached structures plan.
4. That a band of reflective tape 50 millimetres in width be displayed in the positions marked 'C' on the attached structures plan.

Interpretation:

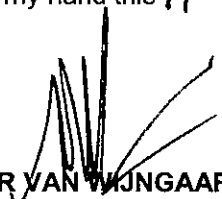
Light - a yellow light, group flash 5 every 20 seconds (minimum flash length not less than 0.5 seconds), height of light not less than 1 metre above the water, range at least 1 nautical mile.

Radar reflector – to be set at not less than 1 metre above the waterline with a band of reflective tape set above this. The radar reflector should be visible on radar at a range of at least 500 metres.

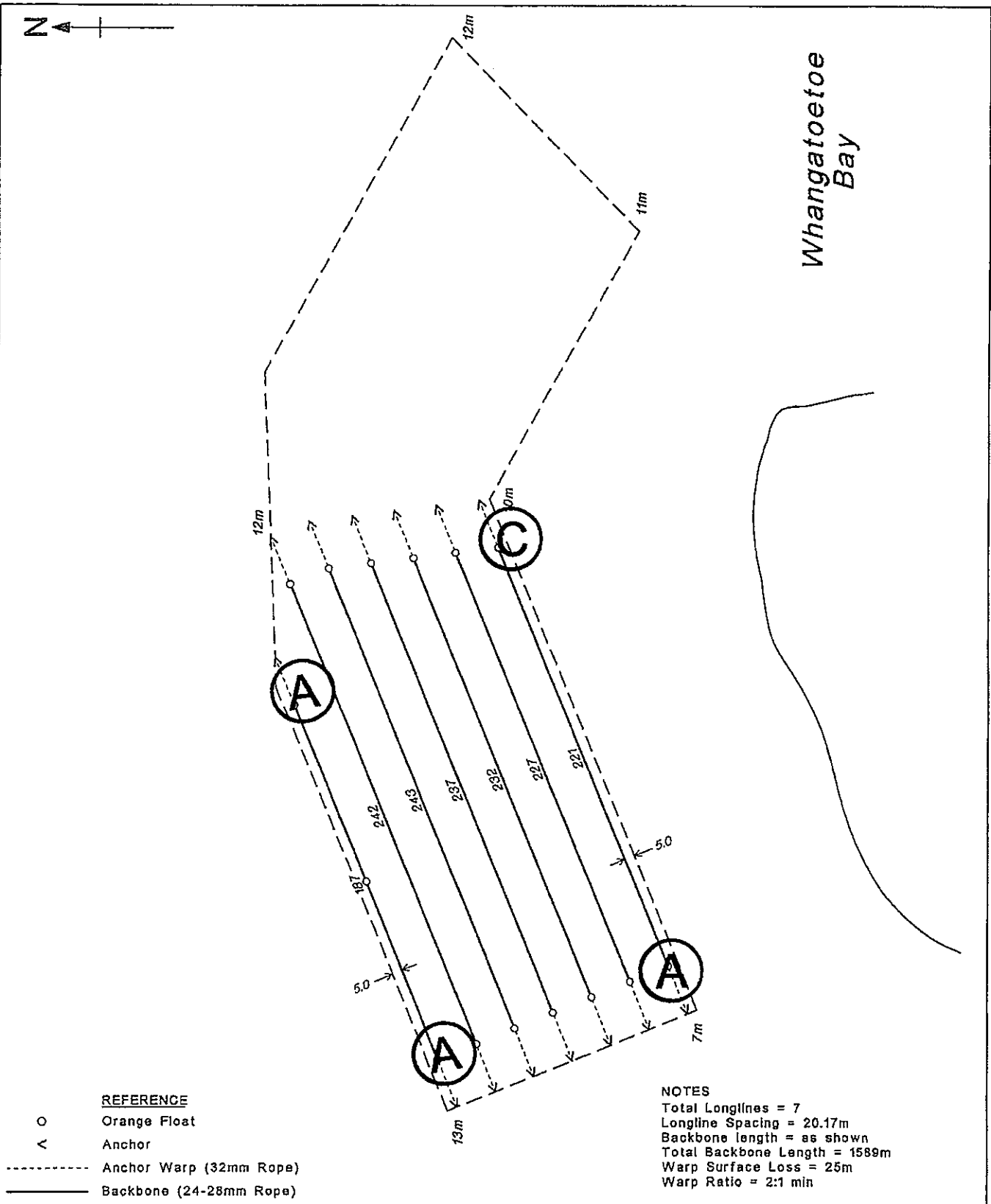
Reflective tape – should be at least 50 millimetres in width and placed around the circumference of the support tube; the tape should be visible by torchlight at a range of at least 50 metres. Alternative reflectors may be substituted for reflective tape, provided that they are mounted where they are visible by torchlight from at least 50 metres all round.

5. Each end of the most landward and most seaward longlines shall carry the name of the consent holder, and the site number issued by Marlborough District Council (e.g. #8405), displayed in bold clear letters in such a manner that they can be clearly read from a distance of 10 metres.

Given under my hand this 17th day of JANUARY 2014


ALEXANDER VAN WIJNGAARDEN

Whangatoetoe Bay



PALMS

11 November 2013

Layout Details - Stage 1

Proposed Marine Farm

Port Underwood

SCALE 1:2,500

50 0 50 100 150 m

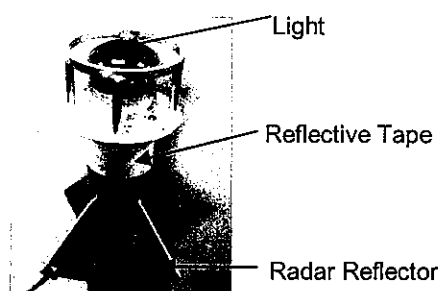
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17/11/2013

Marine Farm Lighting and Marking Plan – U130217 (Site no.8628) Stage 1A

I, Alexander van Wijngaarden, Harbourmaster of Marlborough District Council, hereby approve, under Maritime Delegation from the Director of Maritime New Zealand pursuant to Sections 200, 444(2) and 444(4) of the Maritime Transport Act 1994, the lighting and marking associated with coastal permit U130217(Site no.8628), located in Whangatoetoe Bay, Port Underwood, as follows:

1. That each end of each longline display an orange buoy, as shall the middle of each of the seawardmost and landwardmost longlines.
2. That a yellow light, radar reflector and a band of reflective tape 50 millimetres in width be displayed in the positions marked 'A' on the attached structures plan. The lights shall be solar powered and shall have the following characteristics: F1 (5) Y (20 secs) 1m 1M.



3. That radar reflectors and a band of reflective tape 50 millimetres in width be displayed in the positions marked 'B' on the attached structures plan.
4. That a band of reflective tape 50 millimetres in width be displayed in the positions marked 'C' on the attached structures plan.

Interpretation:

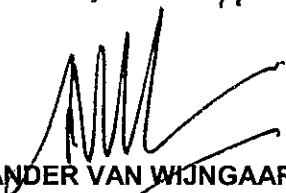
Light - a yellow light, group flash 5 every 20 seconds (minimum flash length not less than 0.5 seconds), height of light not less than 1 metre above the water, range at least 1 nautical mile.

Radar reflector – to be set at not less than 1 metre above the waterline with a band of reflective tape set above this. The radar reflector should be visible on radar at a range of at least 500 metres.

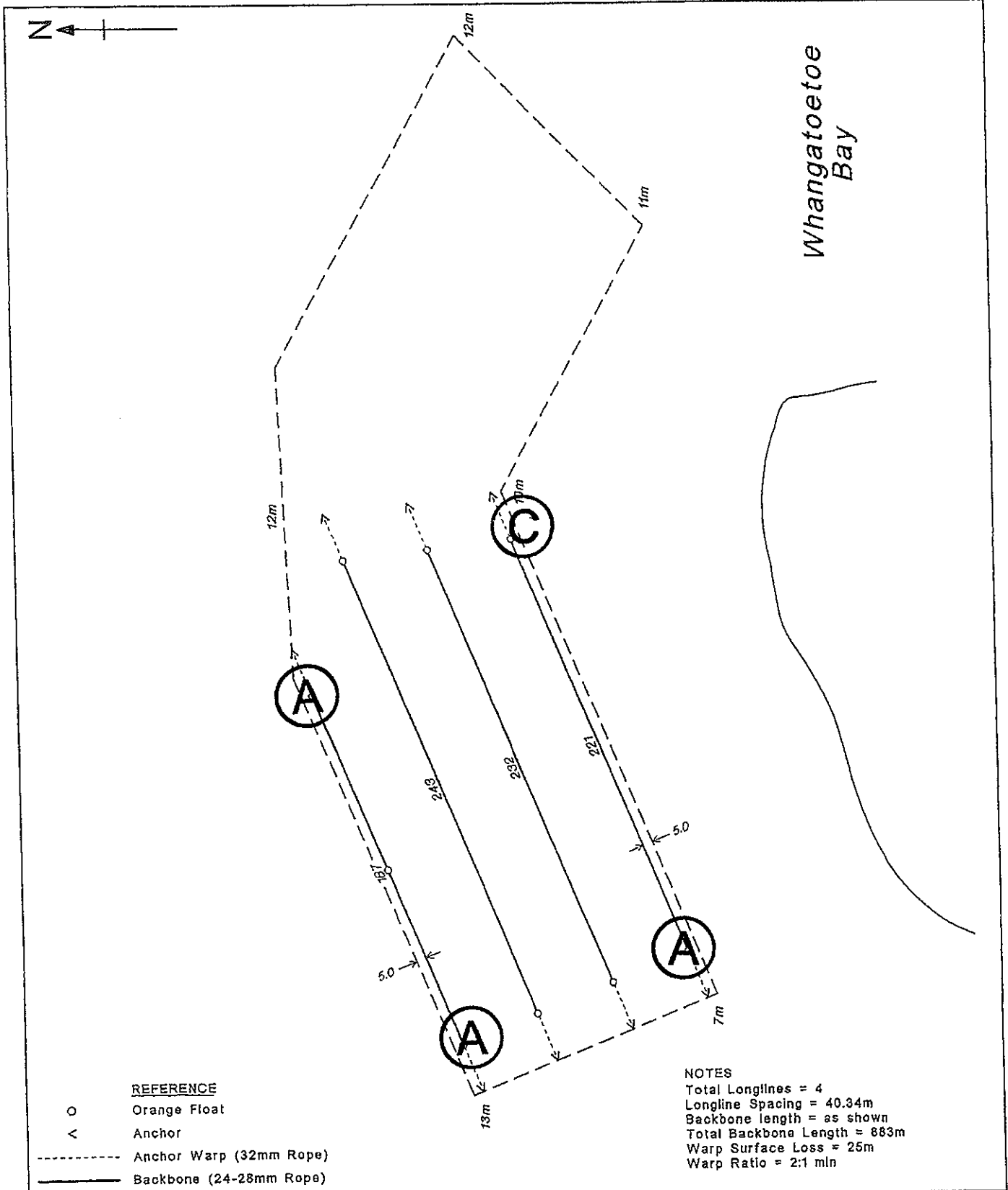
Reflective tape – should be at least 50 millimetres in width and placed around the circumference of the support tube; the tape should be visible by torchlight at a range of at least 50 metres. Alternative reflectors may be substituted for reflective tape, provided that they are mounted where they are visible by torchlight from at least 50 metres all round.

5. Each end of the most landward and most seaward longlines shall carry the name of the consent holder, and the site number issued by Marlborough District Council (e.g. #8405), displayed in bold clear letters in such a manner that they can be clearly read from a distance of 10 metres.

Given under my hand this 17th day of JANUARY 2014



ALEXANDER VAN WIJNGAARDEN



REFERENCE

- Orange Float
- < Anchor

- Anchor Warp (32mm Rope)
- Backbone (24-28mm Rope)

NOTES

- Total Longlines = 4
- Longline Spacing = 40.34m
- Backbone length = as shown
- Total Backbone Length = 883m
- Warp Surface Loss = 25m
- Warp Ratio = 2:1 min



PALMS

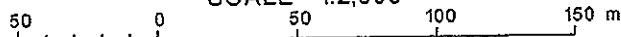
11 November 2013

Layout Details - Stage 1A

Proposed Marine Farm

Port Underwood

SCALE 1:2,500



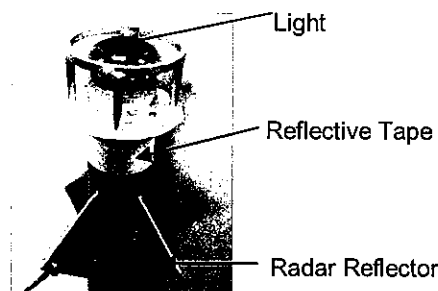
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17/11/2013 MF_2292f



Marine Farm Lighting and Marking Plan – U130217 (Site no.8628) Stage 2

I, Alexander van Wijngaarden, Harbourmaster of Marlborough District Council, hereby approve, under Maritime Delegation from the Director of Maritime New Zealand pursuant to Sections 200, 444(2) and 444(4) of the Maritime Transport Act 1994, the lighting and marking associated with coastal permit U130217(Site no.8628), located in Whangatoetoe Bay, Port Underwood, as follows:

1. That each end of each longline display an orange buoy, as shall the middle of each of the seawardmost and landwardmost longlines.
2. That a yellow light, radar reflector and a band of reflective tape 50 millimetres in width be displayed in the positions marked 'A' on the attached structures plan. The lights shall be solar powered and shall have the following characteristics: F1 (5) Y (20 secs) 1m 1M.



3. That radar reflectors and a band of reflective tape 50 millimetres in width be displayed in the positions marked 'B' on the attached structures plan.
4. That a band of reflective tape 50 millimetres in width be displayed in the positions marked 'C' on the attached structures plan.

Interpretation:

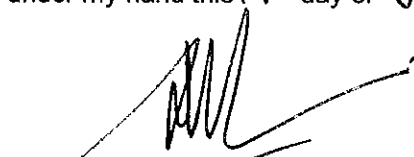
Light - a yellow light, group flash 5 every 20 seconds (minimum flash length not less than 0.5 seconds), height of light not less than 1 metre above the water, range at least 1 nautical mile.

Radar reflector – to be set at not less than 1 metre above the waterline with a band of reflective tape set above this. The radar reflector should be visible on radar at a range of at least 500 metres.

Reflective tape – should be at least 50 millimetres in width and placed around the circumference of the support tube; the tape should be visible by torchlight at a range of at least 50 metres. Alternative reflectors may be substituted for reflective tape, provided that they are mounted where they are visible by torchlight from at least 50 metres all round.

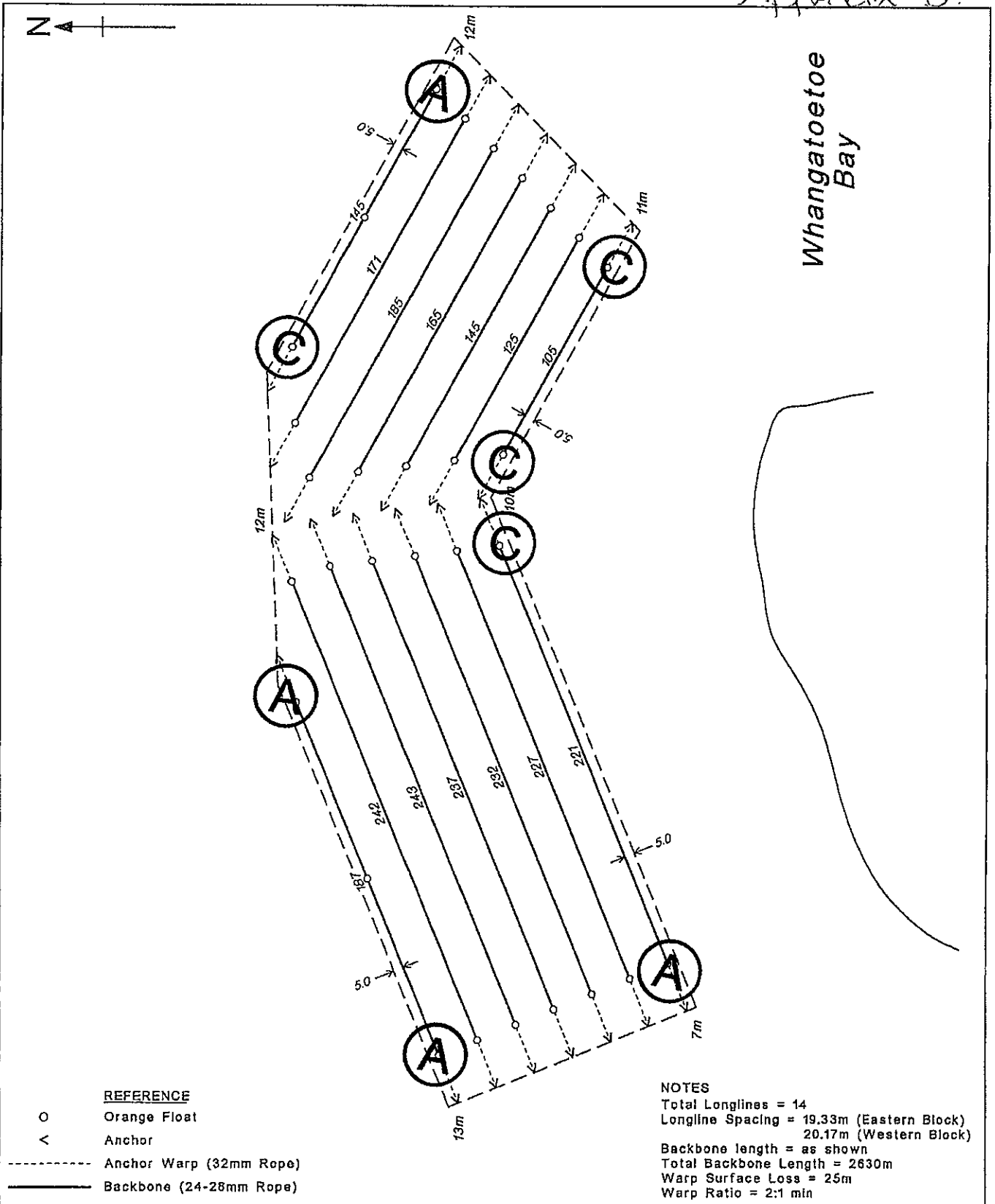
5. Each end of the most landward and most seaward longlines shall carry the name of the consent holder, and the site number issued by Marlborough District Council (e.g. #8405), displayed in bold clear letters in such a manner that they can be clearly read from a distance of 10 metres.

Given under my hand this 17th day of January 2014


ALEXANDER VAN WIJNGAARDEN

Appendix B.

Whangatoetoe Bay



REFERENCE

- O Orange Float
- < Anchor
- Anchor Warp (32mm Rope)
- Backbone (24-28mm Rope)

NOTES

- Total Longlines = 14
- Longline Spacing = 19.33m (Eastern Block)
- 20.17m (Western Block)
- Backbone length = as shown
- Total Backbone Length = 2630m
- Warp Surface Loss = 25m
- Warp Ratio = 2:1 min



PALMS

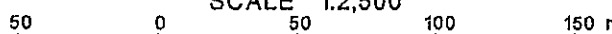
11 November 2013

Layout Details - Stage 2

Proposed Marine Farm

Port Underwood

SCALE 1:2,500



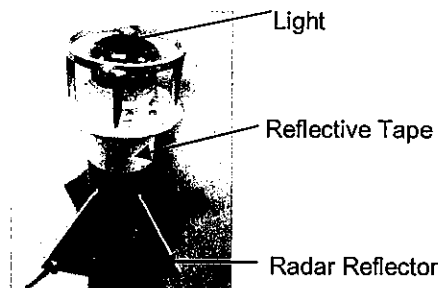
MF_22921

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12/01/2014

Marine Farm Lighting and Marking Plan – U130217 (Site no.8628) Stage 2A

I, Alexander van Wijngaarden, Harbourmaster of Marlborough District Council, hereby approve, under Maritime Delegation from the Director of Maritime New Zealand pursuant to Sections 200, 444(2) and 444(4) of the Maritime Transport Act 1994, the lighting and marking associated with coastal permit U130217(Site no.8628), located in Whangatoetoe Bay, Port Underwood, as follows:

1. That each end of each longline display an orange buoy, as shall the middle of each of the seawardmost and landwardmost longlines.
2. That a yellow light, radar reflector and a band of reflective tape 50 millimetres in width be displayed in the positions marked 'A' on the attached structures plan. The lights shall be solar powered and shall have the following characteristics: F1 (5) Y (20 secs) 1m 1M.



3. That radar reflectors and a band of reflective tape 50 millimetres in width be displayed in the positions marked 'B' on the attached structures plan.
4. That a band of reflective tape 50 millimetres in width be displayed in the positions marked 'C' on the attached structures plan.

Interpretation:

Light - a yellow light, group flash 5 every 20 seconds (minimum flash length not less than 0.5 seconds), height of light not less than 1 metre above the water, range at least 1 nautical mile.

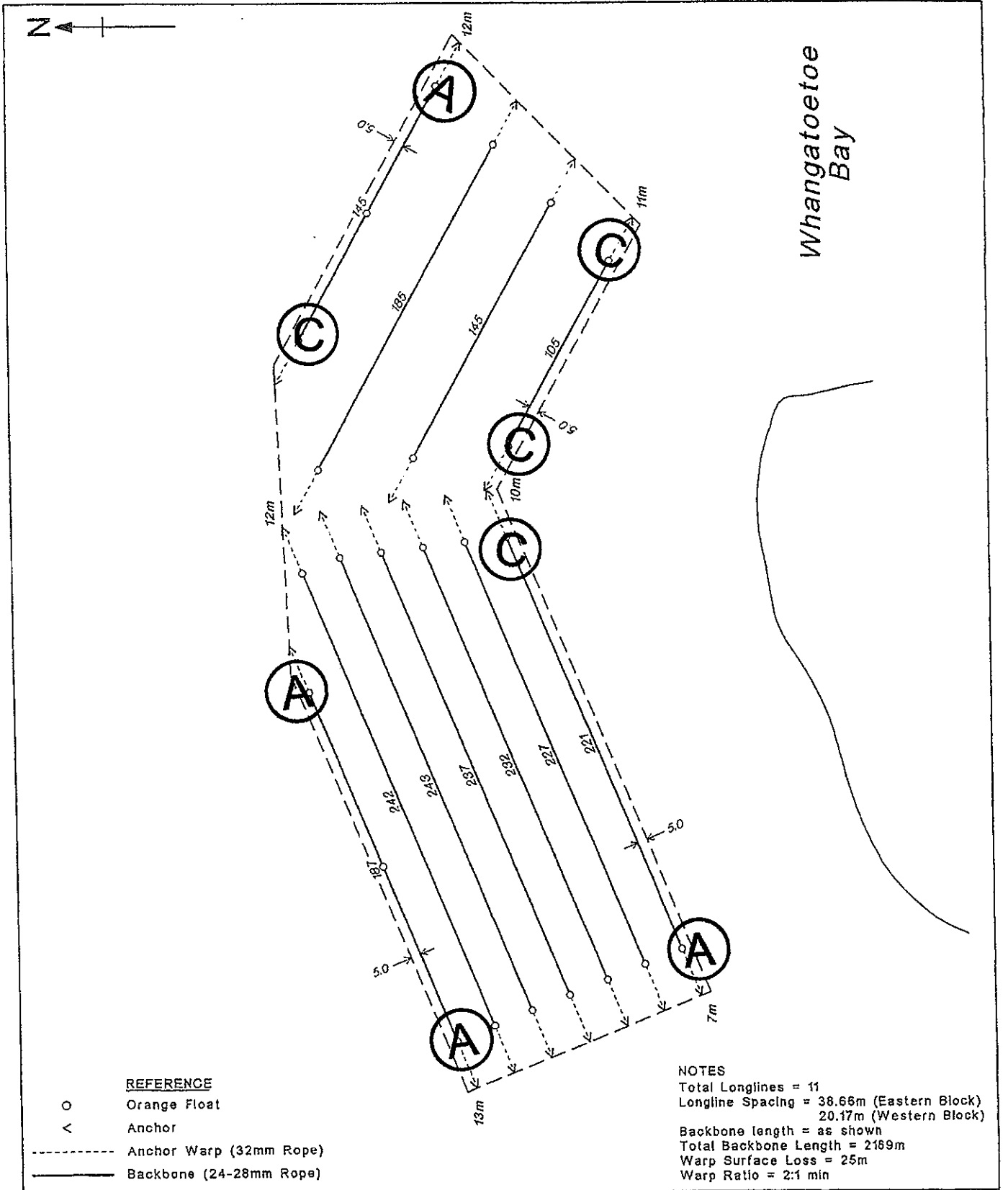
Radar reflector – to be set at not less than 1 metre above the waterline with a band of reflective tape set above this. The radar reflector should be visible on radar at a range of at least 500 metres.

Reflective tape – should be at least 50 millimetres in width and placed around the circumference of the support tube; the tape should be visible by torchlight at a range of at least 50 metres. Alternative reflectors may be substituted for reflective tape, provided that they are mounted where they are visible by torchlight from at least 50 metres all round.

5. Each end of the most landward and most seaward longlines shall carry the name of the consent holder, and the site number issued by Marlborough District Council (e.g. #8405), displayed in bold clear letters in such a manner that they can be clearly read from a distance of 10 metres.

Given under my hand this 17th day of January 2014


ALEXANDER VAN WIJNGAARDEN



REFERENCE

- Orange Float
- < Anchor
- Anchor Warp (32mm Rope)
- Backbone (24-28mm Rope)

NOTES

- Total Longlines = 11
- Longline Spacing = 38.65m (Eastern Block)
- 20.17m (Western Block)
- Backbone length = as shown
- Total Backbone Length = 2169m
- Warp Surface Loss = 25m
- Warp Ratio = 2:1 min



PALMS

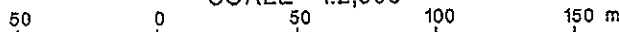
11 November 2013

Layout Details - Stage 2 A

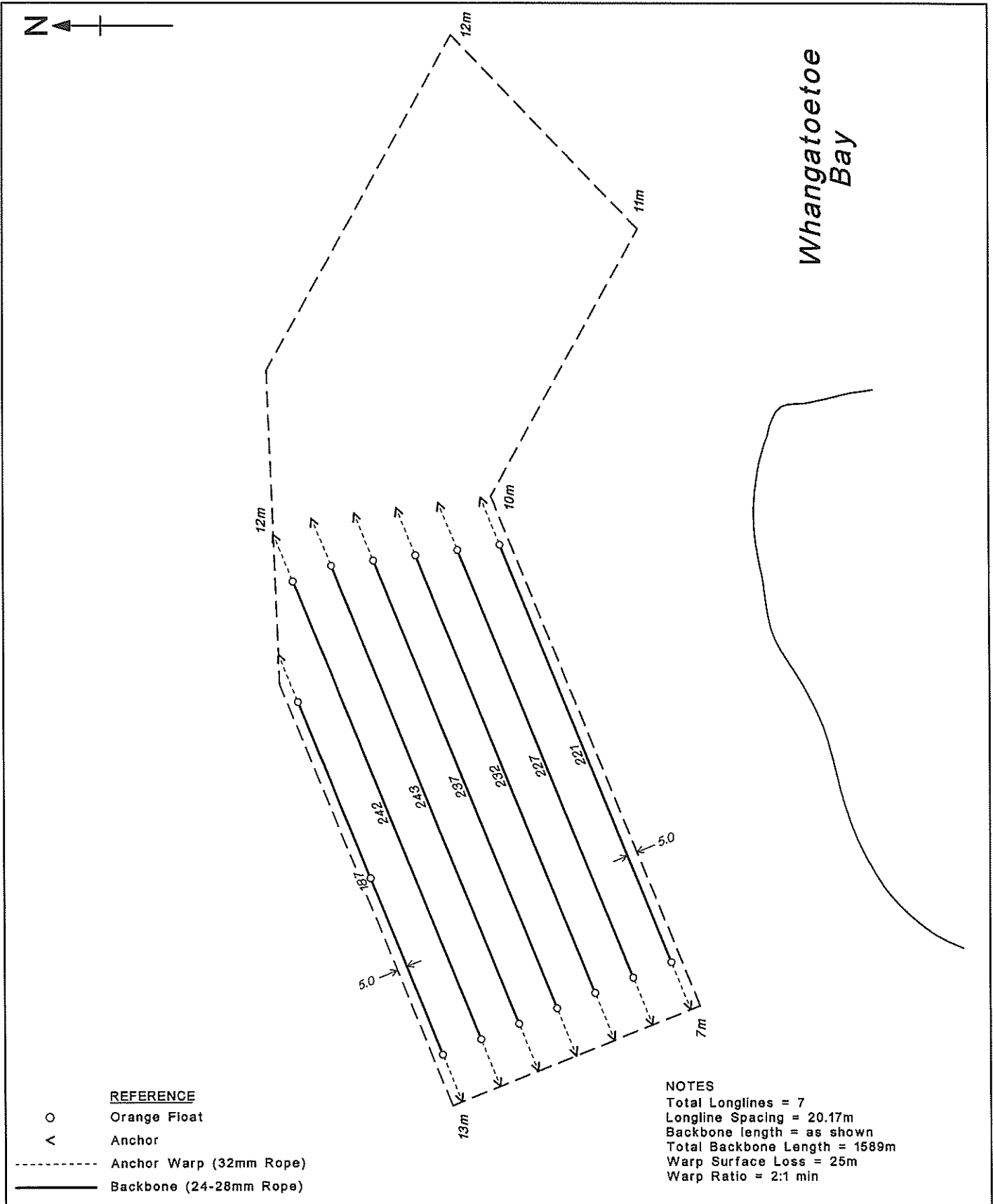
Proposed Marine Farm

Port Underwood

SCALE 1:2,500



[Handwritten signature]
17/11/2013 MF_2292f



REFERENCE

- Orange Float
- △ Anchor
- - - - - Anchor Warp (32mm Rope)
- Backbone (24-28mm Rope)

NOTES

- Total Longlines = 7
- Longline Spacing = 20.17m
- Backbone length = as shown
- Total Backbone Length = 1589m
- Warp Surface Loss = 25m
- Warp Ratio = 2:1 min



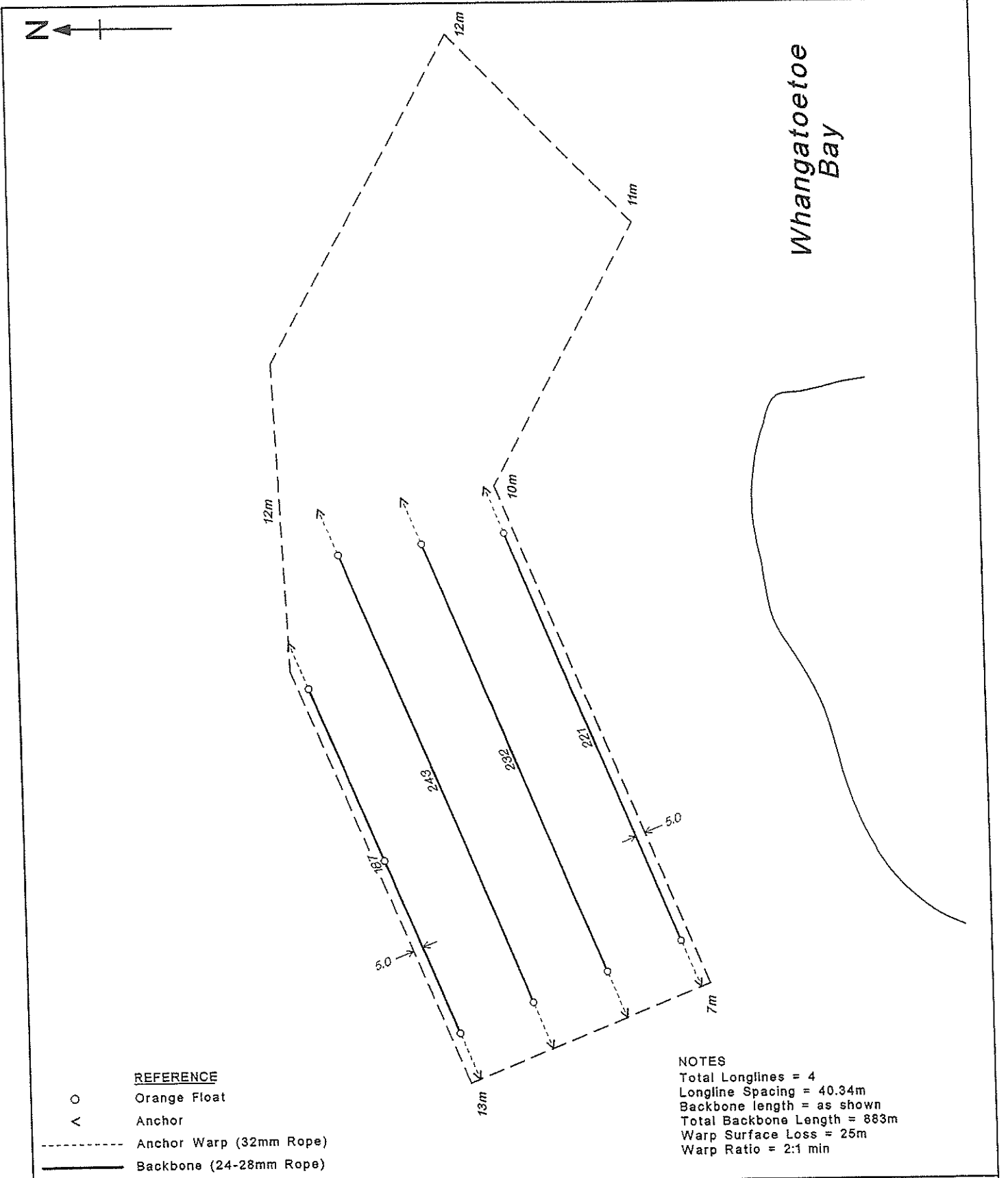
PALMS

11 November 2013

Layout Details - Stage 1 Proposed Marine Farm Port Underwood

SCALE 1:2,500
50 0 50 100 150 m

MF_2292f



- REFERENCE**
- Orange Float
 - ∧ Anchor
 - - - - - Anchor Warp (32mm Rope)
 - Backbone (24-28mm Rope)

NOTES
 Total Longlines = 4
 Longline Spacing = 40.34m
 Backbone length = as shown
 Total Backbone Length = 883m
 Warp Surface Loss = 25m
 Warp Ratio = 2:1 min



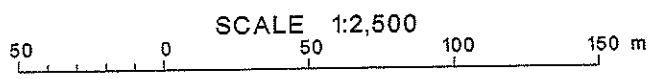
PALMS

11 November 2013

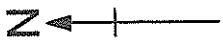
Layout Details - Stage 1A

Proposed Marine Farm

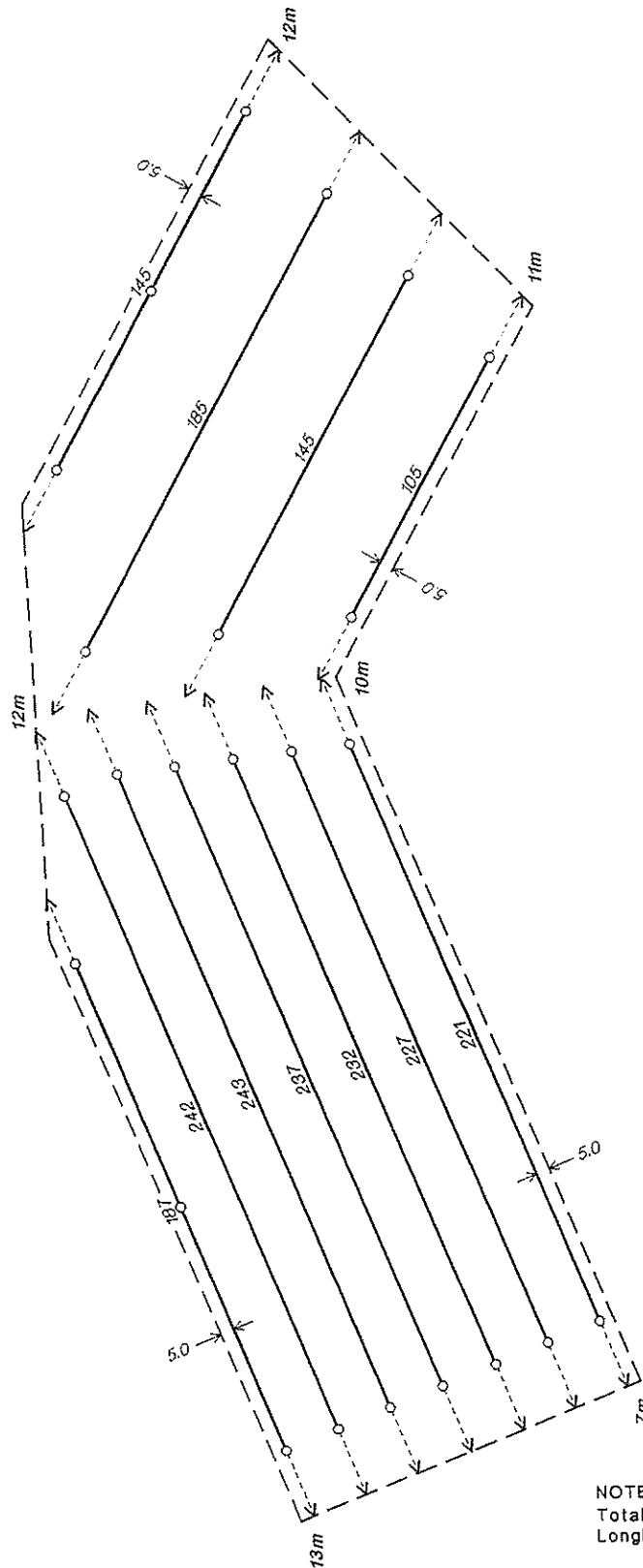
Port Underwood



MF_2292f



Whangatoetoe Bay



REFERENCE

○ Orange Float

△ Anchor

----- Anchor Warp (32mm Rope)

———— Backbone (24-28mm Rope)

NOTES

Total Longlines = 11

Longline Spacing = 38.66m (Eastern Block)
20.17m (Western Block)

Backbone length = as shown

Total Backbone Length = 2169m

Warp Surface Loss = 25m

Warp Ratio = 2:1 min



PALMS

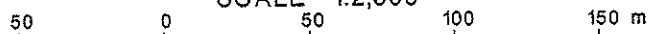
11 November 2013

Layout Details - Stage 2 A

Proposed Marine Farm

Port Underwood

SCALE 1:2,500



MF_2292f