

**Application for resource consent section 88 of the
Resource Management Act 1991**

To: Auckland Council
Private Bag 92300
AUCKLAND 1142

1. Applicant

1.1 Westpac Mussels Distributors Limited.

2. Resource consent sought

2.1 A coastal permit is sought to use and occupy space in the coastal marine area for conventional longline structures and farming ropes, or spat catching frames or ropes, for the purpose of farming, or collecting the spat of, New Zealand greenshell mussels (*Perna canaliculus*) and to undertake associated discharges to air and water and disturbance to and deposition on the seabed.

2.2 The activities proposed are discussed in more detail in the Assessment of Environmental Effects forming part of this application (**AEE**).

2.3 The term of the resource consent sought is 35 years.

3. Location of the proposed activities

3.1 The area to which this application relates comprises approximately 171 hectares. It is located in the middle reaches of the Firth of Thames within the Auckland Region. The application area is approximately 7.8 kilometres from the western shoreline, 8.3 kilometres from the eastern shoreline and 1.56 kilometres from the nearest existing marine farm which is located to the south-east at Wilsons Bay. The proposed marine farm is known as the Rangipakihi Marine Farm.

3.2 The area is more precisely identified in the survey plan filed with the application.

4. Owner and occupier of land to which application relates

4.1 The application relates to the common marine and coastal area, and ownership is governed by the Marine and Coastal Area (Takutai Moana) Act 2011. The area to which the application relates is currently unoccupied. However, it is subject to another existing application for spat catching activities lodged by the applicant (R/REG/2014/4182). The applicant requests this application is processed ahead of its existing spat catching application. It will withdraw the existing spat catching application once this application has been accepted for processing by Auckland Council. The application does not impinge on any other applications including applications which are "on hold" and have not been processed or granted by the Council.

5. Additional resource consents required

5.1 No other resource consents are required for the proposed activity.

6. Assessment of Environmental Effects

- 6.1 Attached to this application, in accordance with Schedule 4 of the Resource Management Act 1991, is an AEE that corresponds with the scale and significance of the effects that the proposed activities may have on the environment. Also attached is the Council's internal form for applications for resource consent, which have been completed including by reference to this document and the AEE.

7. Additional information required

- 7.1 All additional information required to be submitted with the application is contained in, or attached to, the AEE submitted with this application.

8. Attachments

- 8.1 Attached to this application are:

- (a) The Council's internal application form.
- (b) An AEE, which contains or has attachments with all information required to be included in this application under the Resource Management Act 1991.

Dated: 27 June 2017

Westpac Mussels Distributors Limited by its
solicitors and duly authorised agents,
MinterEllisonRuddWatts:



R M Devine / S de Groot

Address for service of applicant:

Westpac Mussels Distributors Limited

C/- Minter Ellison Rudd Watts

PO Box 3798

Auckland 1140

Attention: Rachel Devine / Stephanie de Groot

Telephone: 09 353 9912 / 09 353 9765

Email: rachel.devine@minterellison.co.nz
stephanie.degroot@minterellison.co.nz

Assessment of Effects on the Environment

Resource Consent Application

Westpac Mussels Distributors Ltd

Rangipakihi

Central Firth of Thames

Mussel Farming and Spat catching

Prepared by:
Robin Britton
Resource Management/ Planning Consultant
PO Box 7016
Hamilton

June 2017

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**Westpac Mussels Distributors Ltd
Rangipakihi
Central Firth of Thames
Resource Consent Application**

Assessment of Effects on the Environment

June 2017

Prepared in accordance with Section 88(2)(b) of the Resource Management Act and taking into account the provisions of the Auckland Unitary Plan.

1. Introduction

- 1.1 This assessment of effects on the environment (AEE) is in respect of the application by Westpac Mussels Distributors Limited (applicant), for consent for mussel farming and mussel spat catching (*Perna canaliculus*), at Rangipakihi in an area in the middle reaches of the Firth of Thames (application), in accordance with s88(2)(b) of and the Fourth Schedule to the Resource Management Act 1991 (RMA).
- 1.2 The application relates to the site described below and as indicated on the map and plans attached to the application (refer Appendix 1). The proposed area which is the subject of this AEE is inclusive of all structures (anchors, lines, farming ropes, spat catching frames or ropes, floats and navigation aids).
- 1.3 The area being applied for is currently clear water space. However, the area is subject to an existing application by the applicant for spat catching activities (R/REG/2014/4182). The applicant wishes for this new application to take precedence over its existing application for spat catching activities. Once the new application has been accepted by the Council for processing, the applicant will withdraw its existing application.
- 1.4 The Auckland Unitary Plan (AUP) provides for marine farming as a discretionary activity in the location subject to this application in rule F2.19.9.¹
- 1.5 This AEE is structured using the headings of the Fourth Schedule to the RMA. The scientific observations and findings in the ecological report attached as Appendix 2 to this AEE and the assessment of landscape and visual effects in the report attached as Appendix 3 to this AEE address many of the issues in more detail. The information required for a coastal permit

¹ The AUP became operative in part on 15th November 2016. Any reference to the AUP in this AEE is to the annotated decisions version updated on 23 May 2017. Rule F2.19.9 has not yet been notified as operative. However, because it is not subject to any appeals it may be treated as if it were operative under section 86F of the RMA.

application by the Auckland Council in its application forms is provided, as relevant to the application, in this AEE and the appendices to the AEE.

2. Description of the Proposal and Alternatives

2.1 General overview

- 2.1.1 The application is for consent for farming mussels (*Perna canaliculus* otherwise known as the New Zealand greenshell mussel™) and mussel spat catching. Resource consent is sought to use and occupy space in the Coastal Marine Area (CMA) for conventional longline structures and farming ropes, or spat catching frames or ropes, for the purpose of mussel farming, including associated discharges to air and water and disturbance to and deposition on the seabed.
- 2.1.2 No other resource consents are required for this marine farming activity.
- 2.1.3 The applicant currently uses Stevenson's Quarry for storage and maintenance of farming equipment for its existing marine farms in the Firth of Thames. Depending on the outcome of this application, Westpac Mussels would consider whether to continue using the Stevenson's Quarry site for storage and maintenance of equipment, or whether to seek an alternative location for these activities. Should any land use consent be required for either the continued use of the existing landing and storage facility at Stevenson's Quarry wharf, Kaiaua, or for an alternative storage site, the applicant would address these consent requirements as a separate process.
- 2.1.4 I do not consider that it is necessary nor appropriate to defer processing this marine farming application under section 91 of the RMA, pending a possible resource consent application for the land based activities. This is because:
- The land based storage and maintenance of marine farming equipment is not part of the proposal to which this application relates. The proposal is to farm mussels and to catch mussel spat which includes the use and occupation of the coastal marine area for marine farming structures, associated discharges to air and water, and disturbance of and deposition on the seabed. The land based storage and maintenance of marine farming equipment is a distinct and separate activity.
 - Deferral of the application pending the filing of a land use consent application would not provide a better understanding of the proposal. The land based storage and maintenance of the equipment has no bearing on the nature and effects of the activity in the coastal marine area and it is considered that the proposal can be sufficiently understood without requiring any further applications.

- Westpac Mussels will only undertake the land based activities associated with this application if it is granted coastal permits for the marine farming activities. It is appropriate and practical for Westpac Mussels to defer making any application for resource consent for the land based activities until after the application for this marine farming activity has been determined.

2.1.5 The area subject to the application is shown on the attached location map (refer Appendix 1). In broad terms, the area is described as follows:

- within the Auckland region
- an area of approximately 171 ha (1900 x 900m)
- in waters that are from 20-25 metres in depth
- currents run more or less north/south
- located over mud-dominated substrate (no hard surfaces or rocky seabed)
- at the closest point is approximately
 - 7.8km from the western shore line
 - 8.3 km from the eastern shoreline, and
 - 1.56km from the nearest existing marine farm (located to the south-east at Wilson Bay).

2.2 Description of activity

2.2.1 There are three distinct stages to growing mussels and this application covers all three stages:

- Stage 1 is spat catching – this involves the microscopic spat alighting on a substrate and staying there until it is of a size that can be handled i.e. between 20 – 40mm.
- Stage 2 is “thinning out” – this is initial seeding, and is dependent on density of spat per metre of rope (seeding involves slipping the spat product (now known as seed) from the culture ropes and re-seeding onto growing lines).
- Stage 3 is the final seed out – this involves re-seeding and farming up until harvesting.

2.2.2 Spat is microscopic when spawned by mature mussels and does not immediately alight on substrates, but floats in the water column until it attaches to a suitable host. Once it has attached to the spat catching culture rope, it cannot be handled (or “caught”) until it is between 20 – 40mm. From a practical perspective removing smaller-sized spat from spat catching lines is not feasible as, due to the fragile, small and soft nature of the spat, it does not survive being handled, and is likely to be squashed. In addition, if the lines were removed when the spat is less than 20mm, most of the spat would fall off the lines, before the lines had been hauled in.

2.2.3 Therefore “catching spat” from a practical and realistic perspective covers that period from initial settling (not visible to the naked eye) to a suitable growth size, at which stage it can be handled and detached from the culture rope in a “live form”.

- 2.2.4 Once the spat has been caught, it is slipped from the spat catching ropes (notably hairier than farming ropes providing greater substrate for the spat to alight upon) and seeded onto growing ropes, i.e., the ropes used for each process are distinctly different. The spat catching rope is either hung from the backbone lines in the traditional manner or it is wound around spat catching frames which in turn are suspended from the backbones. (Refer to diagrams in Appendix 1). Re-seeding is required to alter the density of product which allows for better growing conditions, and to manage the weight on the ropes.
- 2.2.5 It is intended that 20 – 50% of the proposed farm area may be used for spat catching. However, the percentage of space actually used for spat catching at any given time, may be more or less than this and would vary depending on:
- spat supply for catching – which varies on timing within a year and from season to season; and
 - market for spat – which relates to demand for spat product.
- 2.2.6 Due to the above variables, it is not possible to set a specific percentage of the proposed farm space that would be used for spat catching that would be realistic over the life time of a resource consent. However, as spat supply is critical to the on-going “robustness” of the industry, the applicant intends to leave approximately 20-50% of space for spat catching purposes.

2.3 Description of structures

- 2.3.1 Refer to Appendix 1 for an indicative layout of the marine farming area and diagram of the structures. The area consists of:
- 2.3.2 **Longlines**
- All longlines are surface lines and are orientated parallel to tidal flows.
 - A combination of single and double backbone lines would be used.
 - The lengths of the longlines to be used will be approximately 180 - 200m metres (the surface length depends on the warp length which depends on depth of water i.e. warp lengths are calculated based on the depth of the area and therefore may vary from corner to corner of the farm blocks. Given the depth of the application area it is appropriate for at least a 50m warp to be installed.)
 - The density of lines would be an average of 2.5 - 3.5 longlines per hectare.
 - The separation between backbone lines will be between 15 to 20 metres.
 - The backbone and mooring line rope used is quality equipment Duradan (synthetic rope).
 - 50m between blocks within the farmed area.
- 2.3.3 **Culture ropes/ frames**
- The culture method used for full farming involves a continuous rope dropper.
 - For spat catching, there are two options:

- Option 1 involves timber or steel frames hung by two corners, at between 0.5 - 1m below the surface.
 - Each frame is approximately 1.2 x 2.4m.
 - Each frame is wound with approximately 200m of spat catching culture rope. This culture rope is wound densely and in a way whereby the entire frame is filled in with the rope, while still allowing for the current to pass readily through.
 - The number of frames per line will be trialed over time to ascertain the most effective density for optimum settling of spat; along with considerations given to the weight that can be carried per line. In general, it is proposed to install 50 - 60 frames per backbone line.
- Option 2 involves spat catching culture rope hung as droppers from the backbone lines.
- Spat catching culture rope is “hairier” than the normal farming rope and offers an increased substrate area for the spat to adhere to.

2.3.4 Floats

- The floats used to support the longlines are 293 litres in volume.
- The number of floats will vary depending on the activity (spat catching vs full growing) and on the stage of growth (which affects weight on the long line).
- For spat catching there will be approximately seven floats on each longline (three to support the longline and two at each end of the longline).
- For mussel farming there will be a range: from initial seeding with approximately 10 floats per line to full growth periods of approximately 50 floats per line (extra floats would be added incrementally over time and the number used is also dependent on the depth of water).
- Orange floats will be used:
 - at the end of each longline;
 - in the middle of the seaward most longline; and
 - in the middle of the landward most line.

2.3.5 Structure Anchors

- The anchors used to secure the long-line structures to the seabed are screw anchors, buried to a depth of approximately 6 to 9 metres.
- The warp line length is approximately 50m.

2.3.6 Lighting

The proposed farm area would be lit as a unit, with cardinal marks plus lights at each corner of the block (visible for 4nm), and 2 special marks plus lights (visible for 1nm) located along each of the longest sides as per draft diagrams in Appendix 1. The cardinal marks would also have radar reflective capability. The lights would be constructed to meet the requirements set out in Maritime New Zealand’s document “Guidelines for Aquaculture Management Areas and Marine

Farms”, 2005 and “NZ’s System of Buoys and Beacons” 2005. The draft lighting plan is the same plan that was proposed by the applicant in respect of its existing spat catching application for the same area. (The lighting required for marking a spat catching farm is the same for marking a farm undertaking both spat catching and mussel farming.) The plan was discussed with the Auckland Council Harbourmaster, in respect of the applicant’s existing spat catching application, in June 2016. The Harbourmaster approved the plan, in principle. It is also noted that, prior to a lighting application being submitted to Maritime NZ for approval to install such navigation aids must also be obtained from the Harbourmaster.

2.3.7 Land based facilities

The applicant would either utilise the existing land-based loading and unloading facilities at Stevenson’s Quarry (approximately 5 km north of Kaiaua), or seek an alternative location within the vicinity of Kaiaua. Stevenson’s Quarry is private property and the applicant currently has a lease to access the wharf and to store ropes, floats, bags and other equipment. There is ample manoeuvring space for trucks servicing this area. The applicant considers that these facilities are sufficient to satisfy the existing marine farming activities plus the proposed marine farming activities, along with any recreational demand (which also operates under a lease to the owners). Marine farming vessels and recreational vessels use different areas at Stevenson’s Quarry. There are currently no conflicts over the use of this area, and none are anticipated as a result of this application. As indicated above, if necessary, land use consent will be obtained for the continued use of this wharf or an alternative site, and would be sought subsequent to any consent being granted for this application. This approach was proposed in respect of the applicant’s existing spat catching application in the Firth of Thames and was acceptable to Council.

2.4 Timing and frequency of placing lines in the water

- 2.4.1 Mussel farming rope once seeded remains in situ until harvesting and subsequent re-seeding. However, spat catching frames and/or culture rope are only placed in the water on a temporary basis.
- 2.4.2 If no spat is caught, the frames and/or spat catching culture ropes are removed from the water, washed, dried and readied for a further attempt, for example a month later. Empty frames / ropes are removed as they would only become fouled with other marine life and therefore not available for catching spat. Fouled lines would also make spat removal from the lines almost impossible due to the delicate nature of spat. In addition, allowing lines to become fouled reduces the life expectancy of the lines themselves which is not a wise economic decision.
- 2.4.3 If spat settles during the spawning period, the frames / ropes would be left in the water until the catching size of 20-40mm is reached. Depending on season and weather conditions, the growth rate to reach this size may take from 7-12 months. (i.e. winter is a slow/ no growth period and spawning is generally occurs in early to late summer). (Likewise, it is noted that the “wild” spat

attached to seaweed from Ninety Mile beach cannot be removed from the seaweed until it is 35 – 45mm size, and again this may take from 7-12 months to reach this size.)

- 2.4.4 Once spat is a suitable size it is slipped from the spat catching rope and reseeded onto growing rope.

2.5 Suitability of area for marine farming

- 2.5.1 Mussel farming is well established in the Firth of Thames and the Coromandel areas and these are proven productive growing areas. Marine farming currently occurs near Waimangō, Wilson Bay and various locations in the vicinity of Coromandel harbour and islands. Westpac Mussels has existing mussel farming and spat catching operations at Waimangō.
- 2.5.2 In the 1960s, the Firth of Thames also had an historical mussel dredge industry. As noted in Mr Poynter’s ecological report (Appendix 2), before the dredging, the Waimangō area was recorded to contain dense beds of wild mussels. It is probable that remnant wild beds remain around the western Firth and beyond, that would provide a source of larval mussels. Some parts of the Firth have been shown to sustain high spat settlement (Hayden and Kendrick 1992²). Spat is also currently found on some lines in some of the existing mussel farms located in these areas. Together, these factors indicate that the area is ecologically suitable for marine farming.
- 2.5.3 From an economic perspective, viability will depend on a range of factors relevant to the particular business undertaking the activity. The applicant has existing marine farms in the Firth of Thames and in Houhora Bay, Northland, and is well established in the industry. It considers the proposal to be commercially viable and an efficient use of space. I also note that in Appendix 2 Mr Poynter notes that “Any ability to collect spat close to crop farms is advantageous as it allows reduced handling time, potentially reduced mortality of translocated spat, reduced farm and labour costs, reduced biological risks and greater fine tuning between the supply of spat and the crop farm requirements over an extended spat season” (p. 1). These efficiencies also make the area suitable.

2.6 Consideration of possible alternative locations for undertaking the activity

- 2.6.1 The RMA requires a description of any possible alternative locations or methods for undertaking the activity for which consent is sought, where it is likely that the activity will result in *any significant adverse effect* on the environment. There is little risk of any *significant adverse effect* on the environment being caused by granting consent to the area subject to the application. Accordingly, possible alternative locations have not been provided.

² B Hayden and J Kendrick 1992 *Mussel industry project to find new spat catching areas in Marlborough Sound and Coromandel*. 2nd Annual Progress Report from MAF Fisheries to Mussel Industry Council

- 2.6.2 The proposed location of the marine farm is appropriate. As noted above, the Firth of Thames is generally recognised as an appropriate location for aquaculture. The AUP also classifies the proposed activity and associated structures as a discretionary activity. Compared with some alternative locations in the Firth of Thames, the proposed area would minimise impacts on other marine farms, landscape and natural character and navigation safety. Alternative locations in the Firth are also limited by the planning framework for the Waikato region, existing farms and other pre-existing applications for spat-catching.

2.7 Appropriateness of activity in location sought

- 2.7.1 As noted above, the area subject to this application is appropriate for marine farming from a planning perspective but also from an ecological, cultural and economic perspective. The appropriateness of the area being applied for is supported by the assessments recorded in this AEE and the findings of the attached expert reports, that the overall environmental effects are less than minor.
- 2.7.2 From a planning perspective, the application to undertake marine farming in this area supports the consolidation of marine farming activities in the Firth of Thames. Consolidation of the industry refers to the opportunity to catch, reseed and distribute spare spat within a local context. In my opinion, this would make the industry more integrated in a Firth of Thames context, by enabling spat to be caught and on-grown within the same locality. The supply of spat (with a lower mortality rate) will become increasingly critical for the future of the industry, for farms within the Auckland, Northland and Waikato regions, as well as elsewhere within NZ. It is noted that there is a current shortage of spat supply and a high mortality rate for spat from 90-Mile beach.
- 2.7.3 The North Island mussel farming industry has to date, relied on wild spat being sourced from Ninety Mile Beach in Northland. In recent seasons, spat being brought in from this area has had a very high mortality rate. This has been catastrophic for the industry and highlights that the current reliance on this source is not sustainable into the future. This is a significant risk for business security. Therefore, the applicant is seeking to have a wider area available to undertake farming as well as enabling spat catching, to support the industry with locally sourced spat. The current and future demand for spat is considered by the applicant to be significant.
- 2.7.4 It is clear that the applicant will need to maximise the potential for catching spat in the proposed area. Without a more certain supply of spat the industry as a whole is threatened for the future. The consent being applied for provides an opportunity for the applicant to develop a locally sourced supply of spat and to farm within the same locality.
- 2.7.5 As noted above, the applicant has other operational marine farms in the Firth of Thames. The expansion of the applicant's operations in the Firth of Thames is appropriate as the applicant has the experience, knowledge, skills and existing services to support additional marine farming in the specific area.

- 2.7.6 The farm area is an efficient use of space and there is also a clear functional need for the activity to be located in the CMA, which reinforces the appropriateness of this activity in the Firth of Thames.
- 2.7.7 The proposed site is not located in an area which would result in any significant conflicts with other users or uses. The farm area is located significantly off-shore and will be lit and marked in accordance with Maritime NZ requirements, which will enable other vessels to navigate safely in the area.
- 2.7.8 From a landscape and visual perspective, Mr Hudson has reported that the location of the proposed activity was influenced by feedback received during consultation with mana whenua. The location mitigates any adverse effects due to its distance from shore and low-lying form. Accordingly, the location of the farm is therefore considered to be suitable from a spatial landscape perspective (p30).
- 2.7.9 In addition to the above factors, the location of the farm was influenced by feedback received during consultation with mana whenua. Ngāti Whanaunga-ki-Wharekawa and Te Whanau ā Haunui Ahuwhenua Trust's preference was for this particular application area to be located further off-shore.
- 2.7.10 The scale of the proposed farm area is based on commercial viability (including recognition of the cost of the consenting process). The scale is smaller than the Wilson Bay blocks, but is compatible with the concept of co-locating farms in one area, in order to avoid sporadic and sprawling developments.

2.8 Efficient use and development

- 2.8.1 Under s7(b) of the RMA, there is a requirement to have "particular regard to" the efficient use and development of natural and physical resources. This is closely aligned to the comments above regarding the appropriateness of the activity in this location. In addition, the NZCPS and AUP also recognises aquaculture as being an appropriate activity in the CMA. It is noted that aquaculture is classified as a discretionary activity in the General Coastal Marine Zone of the AUP.
- 2.8.2 The allocation of space and efficient use of that space, including in the context of any other uses/users of the area, is also relevant to considering whether the activity represents efficient use and development of natural and physical resources.
- 2.8.3 The proposed area would enable the local marine farming industry to grow, resulting in positive effects on the cultural, economic and social wellbeing of the local communities, through for example employment opportunities, downstream support industries, and the government's commitment to the 20% allocation to iwi. Additional marine farming space which focuses on spat catching as well as full farming, would enable the industry to develop a more robust economic basis: i.e. it is my understanding that the failure rate for spat sourced from Kaitia is

approximately 97%. Clearly the industry needs to identify alternative options – such as more efficiently catching the spat locally to reduce transportation stress and develop local spat supplies. The proposed area would not conflict with any other users of the area. The activity is compatible with recreational fishing, and allows for clear manoeuvring passageways through and around the farm by vessels navigating in the area.

2.8.4 Key reasons why the scale and layout of the proposed area is an efficient use of resources and is appropriate, include:

- The proposed area reflects the scale appropriate to ensure economic viability: i.e. to develop a locally-based spat market, there needs to be sufficient spat supply to establish a workable and economic market for spat. There also needs to be the opportunity to grow full mussels at the same time.
- There is a demand for developing a local source of spat supply, due to the extremely high (97%) failure rate associated with the use of Kaitia spat and the proposed area is of an appropriate scale to enable the applicant to contribute to meeting this demand.
- There are economies of scale related to the need for equipment, vessels and land-based operations.
- There are also economies of scale at an operational level as the proposed area would enable the consolidation of the farming operations, including by enabling spat catching to be coordinated with on-growing within the same farm area. This in turn enhances efficiency of operations, including by reducing land-based transport-servicing requirements (i.e. there would be less economic waste in terms of time and transport costs by having spat available and reseeded locally).
- At a practical level the size and layout of the area also reflects the fact that when attempting to catch spat there are large spatial differences i.e. spat may fall in one area and 200m away there may be none. Currently there is no way to determine exactly where the spat will be caught in any given time. Therefore, the spatial distribution of spat catching opportunities intermingled with full mussel farming, would increase the opportunities for catching spat.
- The activity is compatible with recreational fishing, and allows for clear manoeuvring passageways around the farm by larger vessels.

2.8.5 The layout of the proposed site represents the efficient use of the space, as it meets industry design standards (concise and consolidated area demarcated by coloured floats and lighting); takes into account access for recreational vessels to travel safely around or between blocks (50m gaps and lighting); and recognises that the spacing between lines is required for the replenishment of phytoplankton and to avoid restricting current flows.

2.8.6 The proposed farm area has a functional need to locate in the CMA. However, the applicant is not seeking exclusive occupation of the space.

3. Assessment of actual or potential effects

3.1 Introduction

This part of the AEE deals in detail with the actual or potential effects of the proposed activity on the environment. This part addresses the matters, where relevant, outlined in the Fourth Schedule to the RMA. The comments made below are in addition to the relevant findings of the attached expert reports (Appendices 2 and 3), which are relied on to address many of the issues raised in this part of the AEE.

3.2 Any effect on those in the neighbourhood and, where relevant, the wider community including any socio-economic and cultural effects

- 3.2.1 It is widely accepted that the aquaculture industry creates and supports direct employment opportunities to both the Auckland and Waikato regions, making a significant contribution to the social and economic wellbeing of both regions. This contribution is clearly recognised in the NZCPS and the AUP (refer also to section 7 below). In respect of this application, potential socio-economic effects include the on-going support for local employment to manage the proposed area as well as supporting the local industry of marine farmers to have ready access to locally sourced spat. The availability of alternative spat sources will assist in making the local farming industry more resilient to spat failures from the Northland spat. In turn, the additional supply of spat to the marine farming industry will have consequential benefits for mussel farming, which are generally accepted to be significant.
- 3.2.2 The applicant is a well-established business that has been operating in the Firth of Thames area (both in the waters of Coromandel and Waimangō) for a considerable time. The applicant intends to use existing land-based infrastructure and services in order to make the most efficient use of capital and to maximise the effectiveness of existing support facilities. The intended use of local employees and/or services will ensure a continued spread of economic benefits throughout the Auckland and Waikato regions.
- 3.2.3 The applicant recognises the importance of the Firth of Thames to tangata whenua and has undertaken significant consultation with iwi directly affected by the application. The applicant has developed a partnership with Ngāti Whanaunga ki Wharekawa and Te Whanau ā Hanunui Ahuwhenua Trust and both parties support this application. This consultation is described in section 5 below.
- 3.2.4 In terms of any impacts on other users of the proposed area, it is noted that the area is not located in any navigation channel or formally identified navigation route. From observations made by staff of the applicant, while transiting by vessel to and from Coromandel and from servicing the Waimangō farms, there are rarely any other vessels sighted in the vicinity of the application area. It is acknowledged that yachts and other recreational vessels do navigate from Coromandel to Thames, primarily to utilise the boat slip facilities at the Thames wharf. The barge operated by McCallum Bros Ltd, operates intermittently from Thames, generally on track

to Waiheke or Auckland. The routes (shown on the map in Appendix 1) were identified in discussions with the current barge operator, McCallum Bros Ltd in relation to the existing applications. Mr McCallum advised that a 0.5nm distance would be required for the barge to navigate past the farm, and this has been taken into account in the location of the farm, relative to the Wilson Bay farm blocks. The feedback provided by Mr McCallum is also applicable to this application as the application area, size of the farming blocks and structures used within the blocks will be substantially the same.

- 3.2.5 With respect to recreational users, the farm would be marked with navigation aids and floats (as identified above, and in the same manner as per existing blocks of farms in Wilson Bay), providing clear indicators for vessel operators with regard to navigation routes. Recreational motorised vessels accessing this area could readily navigate between lines and around the farm area. Recreational fishers are known to actively seek out marine farms as the farms provide a habitat/ shelter for other species to co-locate and hence are preferred fishing areas.
- 3.2.6 In my opinion there would be minimal impact from the farm on other transient users of this proposed area.
- 3.2.7 It is understood that the proposal would not affect commercial fishers, however this is a matter to be addressed through the Ministry of Primary Industry's undue adverse effects process.
- 3.2.8 Westpac Mussels considers that any cultural effects arising from the application have been mitigated as far as practicable. The applicant has undergone extensive consultation with iwi understood to have an interest in the area of the application. This consultation is described in detail in section 5 below. To summarise:
- Tangata whenua of the area subject to the application and the iwi considered to be most directly affected are Ngāti Whanaunga-ki-Wharekawa and Te Whanau ā Haunui Ahuwhenua Trust. Westpac Mussels has therefore focused its consultation effort on these two iwi groups. The result of that consultation is a confidential joint partnership agreement which is focused on mitigating any adverse cultural effects of the application. In conjunction with that agreement, Ngāti Whanaunga-ki-Wharekawa and Te Whanau ā Haunui Ahuwhenua Trust have provided their written approval to the application and a supportive cultural impact statement addressing the application and the application area.
 - Ngāti Whanaunga-ki-Wharekawa and Te Whanau ā Haunui Ahuwhenua Trust have also contacted other iwi groups who may have an interest in the application area. As a result of that contact, Ngati Paoa has provided its written approval to the application. The other iwi contacted indicated that they either have no interest in the application area, did not provide a response, or support and defer to the views of Ngāti Whanaunga-ki-Wharekawa and Te Whanau ā Haunui Ahuwhenua Trust.

3.3 Any physical effect on the locality, including any landscape and visual effects

- 3.3.1 Reference is made to the ecological report in Appendix 2. Based on the findings of the scientific report the proposed marine farming activities would have less than minor effects on the ecology of the Firth of Thames. The findings made by Mr Poynter are discussed in further detail in section 3.4 below.
- 3.3.2 Reference is made to the landscape, natural character and visual effects assessment in the attached report which addresses this matter in detail (Appendix 3). The findings of this report are relied on in support of the contention that any effect on the landscape, visual and natural character aspects, from granting the consents sought will be less than minor. It is also contended that the landscape and visual effects assessment submitted in support of the application provides sufficient information for the purpose of adequately assessing this aspect of environmental effects.
- 3.3.3 Mr Hudson notes that due to the distance of the proposed area from land, views from land-based people would be limited and further notes that the primary viewing audience will be from people on both commercial and private vessels. The relatively limited viewing points contribute to Mr Hudson's conclusions that any adverse visual effects would be less than minor.
- 3.3.4 The natural character, landscape and natural features of the area are noted in the attached report (Appendix 3) as being modified, on land by settlement, roads and changes in vegetation, as well as at sea by the existing marine farms at Waimangō and the two areas consented at Wilsons Bay. In my opinion, and based on the evidence of Mr Hudson, the overall impact of the proposed farm area on the landscape and natural character of the wider area is less than minor due to the existing uses by marine farming, the distance from shore, the distance from other farms, the low profile of the structures in the water and the negligible landward viewing opportunities.
- 3.3.5 Orange floats will be used to delineate the ends of each longline. They will also be used to delineate the middle of the seaward-most line and the landward-most line of each block within the area. The use of orange floats not only identifies the limits of each block but it also has a significant safety role, as it serves to warn other users of the marine environment of the boundaries. Although bright in colour, these floats will not be visible from the shore but will serve as navigation aids for marine users. The remaining floats are primarily black (NB: the industry is also trialling other dark colours such as blue/ green/ grey) and their level of visibility would be dependent on weather and distance.
- 3.3.6 The servicing vessel that will be utilised in the farm operations would be visible from a marine perspective, but would otherwise be barely noticeable from land. The vessel has authorised berthage at Stevenson's quarry and this wharf area is currently used for refuelling, loading of equipment and landing of product from the applicant's existing mussel farms.

- 3.3.7 In my opinion, and based on the evidence provided in Appendix 3, the marine farming structures would have a low visual profile. Clearly the farms would be visible from the sea, depending on the location and distance of vessels on the water travelling in this vicinity.
- 3.3.8 The conclusions of Mr Hudson that the adverse effects (including cumulative effects as discussed below) on landscape, visual and natural character values of the proposed area would be less than minor, is relied on in support of the applications, and indicates that the overall potential impacts of the applications are acceptable.

3.4 Any effect on ecosystems, including effects on plants or animals and any physical disturbance of habitats in the vicinity

- 3.4.1 Reference is made to the scientific information and opinions in Mr Poynter's report which addresses this matter in more detail (Appendix 2). The findings of this report are relied on in support of the contention that any effects on the ecosystem, from granting the consents sought, will be low risk and low potential impact and therefore less than minor. It is also contended that the scientific report submitted in support of the application provides sufficient information for the purpose of adequately assessing this aspect of environmental effects.
- 3.4.2 The AUP envisages that any adverse effects on ecosystems will be managed sustainably. Based on the information in Mr Poynter's report it is considered that the cumulative effects on the ecosystem of the proposed area (subject to the application) together with the effects from the existing farms at Waimangō and Wilson Bay would be less than minor.
- 3.4.3 It is also noted in the attached report that *spat supply is a critical and at times limiting resource to the NZ mussel industry* (p.1) and is further noted the advantages of catching spat in close proximity to the farms where it would be subsequently seeded out.
- 3.4.4 The mussel farming industry in New Zealand is subject to various stringent requirements in respect of the quality of the marine waters in which aquaculture activities are located (including food and health standards which are set by the United States Food and Drug Authority and implemented by NZ's Health Authorities). Therefore, the Mussel Farming Industry's own self-governing systems have the effect of ensuring that the community has a highly competent 'watchdog' system to continuously review and maintain high water quality standards within the proposed farm area. Such policing of environmental standards is considerably in excess of that available to marine areas and ecosystems not advantaged by the presence of marine farms. The applicant proposes to comply with all relevant Industry best practice guidelines when exercising the consent sought.

Hydrodynamics and Water Column Effects

- 3.4.5 In relation to the effects on hydrodynamics and water column in the area of the proposed farm, the findings of the attached scientific report note that the exposed hydrodynamic setting, relatively high current regime and relatively deep water would limit any material risk to the

environment from the proposed activities (refer p. 21). Therefore, based on the attached report and my understanding and experience with mussel farms and associated hydrodynamic issues, it is considered that any hydrodynamic and water column effects would be less than minor.

- 3.4.6 This conclusion is relied on in support of the application, and indicates that potential impacts of the proposed marine farming activities on this matter are acceptable and less than minor.

Benthic Effects

- 3.4.7 In relation to the effects on the benthic environment, the attached scientific report provides an overview of literature which covers a range of benthic assessments undertaken in the area.
- 3.4.8 Field surveys undertaken by Mr Poynter in the area of the proposed application confirm that the seabed is largely flat and featureless and appears to be muddy substrate throughout (p. 14). Mr Poynter found that there is low relief within the site in the form of gentle undulation, perhaps seabed wave form. However, no hard surfaces or rocky seabed were recorded. There may be some variation in cohesiveness of the mud substrate. Indicative biota includes species regarded as typical and characteristic of the reported benthic communities (heart urchins and brittle stars). Benthic samples collected from representative locations within the site and 'typed' as to texture verify the sonar data. No seabed features of significance were observed such as distinctly different seabed relief or substrate type. Therefore, no targeted benthic biological samples were collected.
- 3.4.9 Mr Poynter concluded that the proposed farm is likely to have a less than minor effect on the benthic ecology of the seabed beneath or near the farm and any effect is more likely interpreted as an ecological positive, or at worst neutral, impact. (p.17)
- 3.4.10 The attached scientific report notes that organic enrichment of sediments due to biodeposition beneath mussel farms is typically limited to within 50m of farm structures (p16).
- 3.4.11 These conclusions are relied on in support of the applications, and indicates that potential impacts of the proposed farming activities on this matter are acceptable, and less than minor.

Other Ecosystem Effects

- 3.4.12 The attached scientific report notes that mussel farms are well known to create mid-water artificial reefs and create habitats. *Artificial structures provide new foraging habitat, food sources, breeding habitat, and refuge from predators for some species. These are for the most part positive effects...* (p.19)
- 3.4.13 The attached scientific report also notes that potential effects on marine mammals (seals, dolphins and whales) from marine farming relate mainly to habitat modification, entanglement in structures and habitat exclusion but that the risk of these effects in respect of the proposal is small.

3.4.14 The attached scientific report also refers to the RAMSAR wetland in the southern Firth of Thames and concludes that the effects from farming at this site would be negligible.

Biosecurity Risks and Management

3.4.15 Any spat caught would be used on the applicant's proposed farm (subject of this application), the applicant's existing farms at Waimangō and Coromandel, and would be available to other farmers within the Firth of Thames. There is no biosecurity risk associated with utilising the spat within the same general area.

3.4.16 A biosecurity risk can also arise from (i) equipment or vessels; and (ii) new invasive species that may destroy the mussel product.

- a. **Vessel:** The vessel to be used for this operation is an existing barge that is currently utilised in the Firth of Thames. It is considered that this vessel would not have any associated biosecurity risk over and above the current situation.
- b. **Equipment:** The equipment to be used on the farm will include floats, ropes, anchors and frames. The floats, ropes, frames and anchors would all be new equipment. It is considered that there is no biosecurity risk associated with new equipment. Some floats and ropes from the applicant's existing farms in the Firth of Thames may be used but this is unlikely (as most equipment has minimal time on land before being re-deployed). Any biosecurity risk from this equipment is extremely low as it is cleaned at sea, before being stored on land (which dries out any marine material) before being re-deployed.
- c. **New Species/ Disease Control:** Staff servicing the proposed area will be seasoned and experienced skippers, managers and workers. They have already been trained to look out for any new or unusual species appearing on the current farms that they work with. In the event that the farm was affected by a disease or other similar biosecurity risk, the applicant would work in conjunction with Aquaculture NZ, the Ministry of Fisheries (Biosecurity), and the Auckland Council to ensure the most appropriate actions were undertaken. In addition, Appendix 2 also notes the Mussel Industry Code of Practice and the NZ Marine Pest Identification Guide, and other guidance in progress, which would form the basis for guidance and staff training.

Summary Comment

3.4.17 The scientific report (Appendix 2) notes that potential adverse effects would be less than minor.

3.4.18 The scientific report also concludes (p. 21) that the following factors limit any risk to the seabed community or local benthic or water column ecology and indicate that the local environment has a low sensitivity to the proposed activities:

- The exposed hydrodynamic setting and relatively high current regime and relatively deep water;
- The daily exposure of the site to moderate tidal currents from mainly opposite directions and to potentially a wide range in directions of residual (non -tidal) current;
- The significant distance to shore areas;
- The muddy benthic and modified substrates; and
- A likely common invertebrate assemblage.

3.4.19 The scientific report further concludes (pp. 21-22) that:

- Effects on fish and fishing and seabirds are likely to be positive or at least not adverse;
- The risk of entanglement of whales or dolphins in spat lines is remote and effects on cetaceans are less than minor;
- There are no apparent biosecurity issues arising from the proposal. It is noted that the mussel industry through its representative organisation (NZ Mussel Industry Council) and other government agencies (Biosecurity NZ and Ministry of Primary Industries) has access to a range of biosecurity related material including identification manuals; and farm practices and response procedures if risk species are detected. Furthermore, mussel industry specific codes of practice and protocols are currently being promulgated;
- There will not be adverse cumulative ecological or water quality effects, taking into account the existing approved mussel farms in the Firth;
- There are likely to [be] positive ecological effects associated with the mussel farm and spat collection structures (anchoring systems, backbone warps and buoys); and
- Ecological or water column effects beyond the farm will in all likelihood be less than minor.

3.4.20 This conclusion, that any ecological or water column effects would be less than minor, is relied on in support of the application, and indicates that the overall potential impacts of the proposed activities are acceptable, and less than minor.

3.5 Any effect on natural and physical resources having aesthetic, recreational, scientific, historical, spiritual, cultural, or other special value for present or future generations

3.5.1 The recreational values of the proposed area are linked to on-the-water activities. Potential adverse effects on navigation safety would be minimal due to the proposed lighting (corner cardinal marks and perimeter special marks) and including radar reflectors, along with the provision of navigable corridors through and around the proposed area. In addition, the area would be marked with coloured floats. (Refer above for description of lighting and floats). The farm is also aligned in parallel to the Wilson Bay blocks to provide a clear thoroughfare between the two farms.

3.5.2 The area is not located in any navigation channel or formally identified navigation route. Any vessels (including less-maneuvrable barges) would be able to navigate past the proposed farm (as indicated on the map in Appendix 1). This map shows indicative alternative routes for

general navigation between Auckland and Thames. These routes were identified in discussions with the current barge operator, McCallum Bros Ltd in relation to the existing applications. McCallum Bros Ltd, operates the only large vessel currently operating within the vicinity of the proposed farm, shifting aggregate within the Firth of Thames, from time to time. Mr McCallum advised that a 0.5nm distance would be required for the barge to navigate past the farm. The feedback provided by Mr McCallum is also applicable to this application as the application area, size of the farming blocks and structures used within the blocks will be substantially the same. In addition, recreational vessels and charter fishing vessels also use this area of the Firth of Thames. Recreational & charter fishing vessels would not be unduly restricted by the presence of the proposed area.

- 3.5.3 As with all parts of the CMA, the proposed area is of some recreational value. As discussed above, the use of appropriate navigational marking (lights, buoys, radar reflectors) should ensure that skippers would have sufficient warning of the location of the area. Public access through the area will not be restricted. Recreational fishing would be enhanced.
- 3.5.4 The attached landscape, visual and natural character assessment report (Appendix 3) concludes that the visual effects of the proposed area would be less than minor.
- 3.5.5 The potential effects of the proposal on tangata whenua interests are addressed in section 5 of this report and also in the separate Cultural Impact Assessment that is to be provided by Ngāti Ngāti Whanaunga ki Wharekawa in consultation with Te Whanau ā Hanunui Ahuwhenua Trust and Ngāti Paoa.
- 3.5.6 The applicant and its consultants involved in preparing this application have no knowledge of any heritage or scientific values which may be adversely affected by the proposal, and there are none listed in the AUP. Likewise, it is not considered that there would be any adverse effects on any nearby Department of Conservation land.

3.6 Any discharge of contaminants into the environment, including any unreasonable emission of noise and options for the treatment and disposal of contaminants

- 3.6.1 The discharges associated with mussel farming and spat catching are minimal. The discharges would involve some “drop-off” of mussels, sediment that has settled over the growing period and other marine life, resulting from harvesting processes. The effects of the discharges on the benthic ecosystems are covered in the scientific report submitted in support of the application (Appendix 2).
- 3.6.2 Appropriate housekeeping in accordance with the Mussel Industry’s Code of Practice in proposed area and on the service vessel would ensure that there is minimal overboard loss of non-degradable materials. Regular maintenance checks of the area including lighting will be undertaken. Checks are undertaken to ensure security of the high economic investment in the

structures. Any waste materials would be taken to shore for land disposal. If floats are lost from the area the maintenance staff would go looking for them and retrieve them (since they are a significant cost).

- 3.6.3 There will be no unreasonable emissions of noise from the proposed activity. The only noise resulting from the activity would be from the barge and would therefore be intermittent and localised.

3.7 Any risk to the neighbourhood, the wider community, or the environment through natural hazards or the use of hazardous substances or hazardous installations

- 3.7.1 The relevance of these matters to these applications is in respect of:

- (i) potential hazardous installations in the form of the longlines and navigational equipment and the potential, albeit minor, resulting hazard to marine users; and
- (ii) the effects of natural hazards, in the form of adverse weather conditions, or changes in sea level.

- 3.7.2 The proposed longline structures would be secured to the ocean floor by screw anchors at each end of each backbone line. The anchors do not pose any threat to vessels, as they would be between 10 and 18 metres below the surface.

- 3.7.3 There is sufficient room between the lines to provide safe navigable channels for small vessels and service vessels. There is also a 50 metre gap between the proposed blocks within the overall area. Accordingly, it is anticipated that recreational and charter vessels that are under competent control will still be able to utilise the waters of the area and navigate freely within the area, without undue risk, including in adverse weather conditions.

- 3.7.4 As further hazard avoidance for other users of the CMA, the applicant would maintain the lighting and radar system which delineates the overall area of the proposed area, and would ensure the appropriate use of orange floats (refer to details above and proposed lighting plan in Appendix 1).

- 3.7.5 In terms of any storm events that may cause damage to the farm, technological changes in recent years in terms of anchoring, type of ropes used and changes in farming practices have significantly reduced the occurrence of breakages. Should there be a rope break, however, the 50m separation between the proposed blocks in each area would provide a clear path to avoid significant impacts on neighbouring blocks. In addition, the proposed area will be regularly maintained and monitored to ensure security of lines and floats. As the structures are floating, the effects of sea level rise will be negligible.

- 3.7.6 There will be no hazardous substances used in exercising the consent applied for by the application.

3.8 Cumulative Effects

- 3.8.1 The overall cumulative effects on the environment associated with this application and the other consented mussel and spat catching farms in the Firth of Thames, in particular those at Waimangō Point and Wilson Bay, are considered to be minimal. This is largely due to the minimal adverse effects that the proposed farm will have on the environment, the location of the proposed area well off-shore, the significant distance of the proposed area from other existing farms and the context of the Firth of Thames as having a historically high natural presence of mussels and spat which was associated with a significant dredge mussel industry in the past. Further reasons why the cumulative effects are expected to be minimal are summarised in the table below.
- 3.8.2 It is noted that cumulative effects associated with other pre-existing applications for spat-catching or mussel farming applications in the Firth of Thames cannot be assessed as it is unclear whether there is any intention to proceed with these applications, and they currently do not form part of the existing marine environment. A number of these applications have been “on hold” since prior to the Resource Management (Aquaculture Moratorium) Amendment Act 2002 (i.e., over 14 years).

Area of Effect	Commentary
Ecological Effects	<p>Mr Poynter’s considers that cumulative effects on the ecosystem of the proposed farm together with the effects from the existing farms at Waimangō and Wilson Bay will be less than minor:</p> <ul style="list-style-type: none">• Mr Poynter has concluded that the proposed farm is likely to have a less than minor effect on the benthic ecology of the seabed beneath or near the farm and any effect is more likely interpreted as an ecological positive, or at worst neutral, impact. His view is that there would be no adverse cumulative effects with existing marine farms.• Mr Poynter notes that potential effects on marine mammals (seals, dolphins and whales) from marine farming relate mainly to habitat modification, entanglement in structures and habitat exclusion but that the risk of these effects in respect of the proposal is remote. There would be no cumulative effects arising in respect of the existing marine farms.

	<ul style="list-style-type: none"> • Mr Poynter notes that there will not be adverse cumulative ecological or water quality effects, taking into account the existing approved mussel farms in the Firth of Thames. • Ecological or water column effects beyond the farm will in all likelihood be less than minor. • Mr Poynter concludes that phytoplankton depletion of ecological significance is highly unlikely and that there is little potential for cumulative changes with phytoplankton depletion. • It is further noted that any hydrodynamic and water column effects would be less than minor at the proposed farm site and there would be no flow-on or cumulative effects for other existing farms.
Landscape and Visual Effects	<p>Mr Hudson considers that any effect on the landscape, visual and natural character aspects, from granting the consents sought will be less than minor. Mr Hudson notes that at the site scale, the expansive context and presence of other working vessel's helps the proposal 'fit' into its proposed location. There are no cumulative effects with other mussel farms in the area, due to the distance the proposed site is from the nearest existing farms (approximately 7.5km south of the application site).</p> <p>There are no cumulative effects from the lighting, due to the distance of the proposed farm from other existing farms.</p>
Economic Growth	<p>In conjunction with the existing farms, the proposed farm would enable the industry to grow economically within the Firth of Thames area. This is a positive cumulative effect, which is line with the Government's and industry's strategic planning directives. The cumulative economic effects also relate to other support industries and to local and regional communities.</p>
Navigation Safety & Boating	<p>The farm would be lit and marked with buoys. There are no adverse cumulative effect arising for the presence of</p>

	other existing marine farms in the area. For recreational boating there will be a positive effect relating to fishing opportunities. There is no cumulative restriction on access (for recreational or commercial vessels), as vessels can still navigate around the proposed farm areas.
Land-based facilities	Stevenson's quarry has ample space to accommodate the land-based activities associated with this proposed farm operation. There is no cumulative adverse effect arising from the proposed farm in conjunction with existing farm operations.

4. Description of mitigation measures

- 4.1 A description of the mitigation measures (safeguards and contingency plans where relevant) to be undertaken to help prevent or reduce the actual or potential effects of the proposed activity is required to be provided under the RMA. The applicant has demonstrated through existing operations that the proposed area would be operated in a sound commercial manner and in compliance with the industry standards that are designed to ensure efficient management of the proposed area, to ensure long term financial viability and environmental sustainability.
- 4.2 The applicant complies with the Code of Practice of the NZ Mussel Industry Council (which was developed by the Mussel Industry Council in consultation with regulatory authorities and scientists). This code promotes good practice management and identifies various mitigation measures to be undertaken in the event of accidents or disease. It should be noted that farmers are audited by Aquaculture New Zealand in respect to implementing this Code of Practice.
- 4.3 A rigorous maintenance regime is undertaken to ensure the security of the structures as the cost of lost and damaged lines, floats and product is economically significant. Regular checks and maintenance are also carried out for the lights.
- 4.4 The low lying nature of the structures and the proposed layout of the area, mitigates against the effects of visual impacts and of sprawling or sporadic developments.

5. Iwi consultation

- 5.1 There is no requirement in the Resource Management Act for applicants for resource consent to undertake consultation with potentially affected parties. However, the Westpac Mussels has made considerable effort to consult with potentially affected iwi.

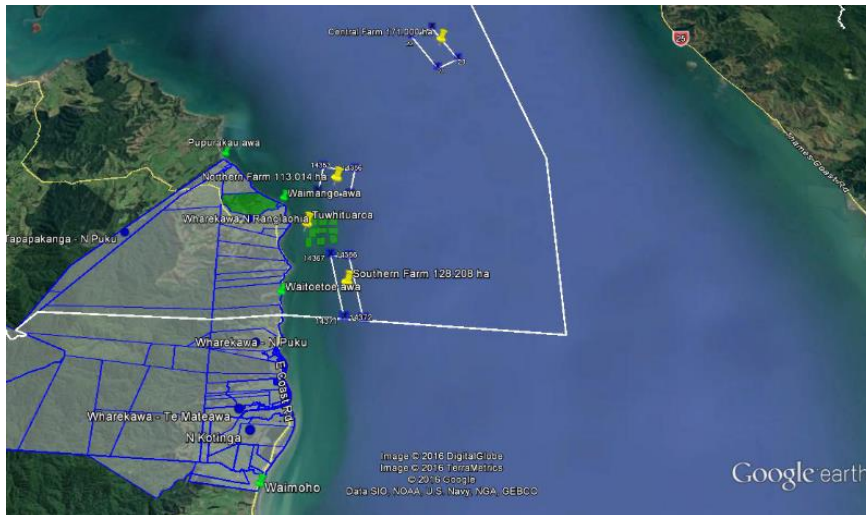
- 5.2 Extensive consultation has been undertaken by Westpac Mussels with Ngāti Whanaunga-ki-Wharekawa and Te Whanau ā Haunui Ahuwhenua Trust, and to a lesser extent Ngati Paoa and Ngati Maru, in respect of its existing spat catching applications in the Firth of Thames, and in respect of this application. As explained below, Ngāti Whanaunga-ki-Wharekawa and Te Whanau ā Haunui Ahuwhenua Trust are the iwi most directly affected by the application.
- 5.3 Ngāti Whanaunga-ki-Wharekawa and Te Whanau ā Haunui Ahuwhenua Trust have also consulted with several other iwi on behalf of Westpac Mussels in respect of this application, including Ngati Paoa, Ngati Tamaoho, Te Akitai Waiohua, Te Ahiwaru Waiohua, Ngati Maru, Ngati Tamatera, Waikato-Tainui and Ngai Tai ki Tamaki.
- 5.4 Set out below is a summary of:
- Ngāti Whanaunga-ki-Wharekawa and Te Whanau ā Haunui Ahuwhenua Trust’s interest in Westpac Mussels’ application;
 - The outcome of consultation with Ngāti Whanaunga-ki-Wharekawa, Te Whanau ā Haunui Ahuwhenua Trust and Ngati Paoa; and
 - The outcome of consultation with Ngati Tamaoho, Te Akitai Waiohua, Te Ahiwaru Waiohua, Ngati Maru, Ngati Tamatera, Waikato-Tainui and Ngai Tai ki Tamaki.

Ngati Whanaunga-ki-Wharekawa and Te Whanau ā Haunui Ahuwhenua Trust’s interest in the application

- 5.5 Ngati Whanaunga-ki-Wharekawa and Te Whanau ā Haunui Ahuwhenua Trust are the two iwi that are most directly affected by the application.
- 5.6 Ngāti Whanaunga-ki-Wharekawa is the tangata whenua of the district located on the western shore of Tikapa Moana (Firth of Thames) and known as Wharekawa. Specifically, the Ngāti Whanaunga-ki-Wharekawa takiwā is bounded by Pūpūrākau (at Tāpapakanga) in the north and Waimoho (just south of the Kaiaua Quarry) in the south. The takiwā reaches inland to the Hūnua Ranges and includes Kohukohunui, the highest peak of those ranges and the maunga of Ngāti Whanaunga.
- 5.7 The pepeha of Ngāti Whanaunga is
- Ko Kohukohunui te maunga,
Ko Tikapa te moana
Ko Ngāti Whanaunga te iwi
- 5.8 Wharekawa includes both the land and marine space equally. The Ngāti Whanaunga-ki-Wharekawa takiwā includes the water immediately adjacent to this land area and reaches out

approximately half way across Tikapa Moana to meet the interests of Ngāti Tamaterā-ki-Waikawau on the other side.

- 5.9 The images below show the location of the applicant's proposed application area and the rohe moana of Ngāti Whanaunga-ki-Wharekawa.





- 5.10 Te Whanau ā Haunui Ahuwhenua Trust is the legal entity governing the Maori land blocks known as Wharekawa 4B2A1B1 and Wharekawa 4B2A1B2 (more commonly referred to as Waimangō), adjacent to the application area.
- 5.11 Te Whanau ā Haunui is the recognised tangata whenua of Waimangō Point along the western coastline of Tikapa Moana. Te Whanau ā Haunui is also the constituent whānau / hapū of Ngāti Whanaunga-ki-Wharekawa and also have whakapapa-based relationships with Ngāti Pāoa and Ngāti Tamaterā. Wharekawa is the traditional tribal district bounded by Tāpapakanga in the north and Kaiaua in the south. Waimangō Point is located at the head of the Waimangō stream. The name Waimangō is Te Whanau ā Haunui's traditional and known name for the marine area, the land blocks and the stream respectively. Waimangō is the largest remaining block of Māori customary land along this western coastline of Tikapa Moana, and is also one of the largest remaining Māori land blocks immediately adjacent to the sea in the Hauraki Iwi

rohe. Waimangō has been in continuous Māori customary ownership since the arrival of Tainui in perhaps 1350AD. Te Whānau ā Haunui are the descendants of those original owners of Waimangō handed down through successive generations by Ngāti Whanaunga ancestry and custom since prior to the signing of the Treaty of Waitangi in 1840. Te Whānau ā Haunui is recognised as holding ahi kā of / at Waimangō (land and sea).

The outcome of consultation with Ngāti Whanaunga-ki-Wharekawa, the Te Whanau ā Haunui Ahuwhenua Trust and Ngati Paoa

- 5.12 Westpac Mussels' consultation with Ngāti Whanaunga-ki-Wharekawa and Te Whanau ā Haunui Ahuwhenua Trust in respect of its activities in the Firth of Thames began in November 2013 and has been ongoing.
- 5.13 Consultation began when Westpac Mussels attended a hui at Wharekawa Marae in Kaiaua on 16 November 2013 to discuss aquaculture activities in the Firth of Thames with local landowners, Firth of Thames marine farmers and tangata whenua from Ngāti Paoa and Ngāti Whanaunga-ki-Wharekawa. Ngāti Maru were invited but did not attend. At the hui Ngāti Paoa and Ngāti Whanaunga-ki-Wharekawa indicated that consultation should continue. As a result, Westpac Mussels continued to engage with Ngāti Paoa, Ngāti Whanaunga-ki-Wharekawa and also the Te Whanau ā Haunui Ahuwhenua Trust (on the advice of Ngāti Whanaunga-ki-Wharekawa) about its marine farming activities in the Firth of Thames.
- 5.14 The result of that consultation is that Ngāti Whanaunga-ki-Wharekawa and Te Whanau ā Haunui Ahuwhenua Trust have entered into a partnership in respect of the applicant's future, proposed marine farming activities in the Firth of Thames. The details of Ngāti Whanaunga-ki-Wharekawa and Te Whanau ā Haunui Ahuwhenua Trust's partnership are largely confidential.
- 5.15 Ngāti Whanaunga-ki-Wharekawa and Te Whanau ā Haunui Ahuwhenua Trust are supportive of the application. Both iwi groups have provided their written approval to the application. Tipa Compain (Ngāti Whanaunga-ki-Wharekawa) has also provided a cultural impact statement in respect of the application on behalf of Ngāti Whanaunga-ki-Wharekawa and Te Whanau ā Haunui Ahuwhenua Trust. The written approvals are attached to this AEE as **Appendix 4** and the cultural impact statement is attached as **Appendix 5**.
- 5.16 The applicant, Ngāti Whanaunga-ki-Wharekawa and Te Whanau ā Haunui Ahuwhenua Trust intend to form a Steering Group for the ongoing management of the area subject to the application, if the application is granted.
- 5.17 Tipa Compain of Ngāti Whanaunga-ki-Wharekawa has continued to keep Ngati Paoa updated on Ngāti Whanaunga-ki-Wharekawa and Te Whanau ā Haunui Ahuwhenua Trust's consultation with Westpac Mussels. He has advised that Ngāti Paoa is supportive of the application and Ngāti Whanaunga-ki-Wharekawa and Te Whanau ā Haunui Ahuwhenua Trust's partnership with

the applicant. Consistent with this advice, Ngati Paoa has also provided its written approval to the application. Ngati Paoa's written approval is included in **Appendix 4**.

The outcome of consultation with Nga Tai ki Tamaki, Ngati Tamaoho, Te Akitai Waiohua, Ngati Maru, Ngati Tamatera and Waikato-Tainui

5.18 Auckland Council has advised Westpac Mussels that Ngati Tamaoho, Te Akitai Waiohua, Te Ahiwaru Waiohua, Ngati Maru, Ngati Tamatera, Waikato-Tainui and Ngai Tai ki Tamaki are listed mana whenua for the Local Board area.

5.19 on behalf of Westpac Mussels, Ngāti Whanaunga-ki-Wharekawa and Te Whanau ā Haunui Ahuwhenua Trust, contacted the above iwi by email and by phone between February and April 2017 advising them of the application and requesting their views. None of the iwi contacted advised they had an interest in the application or the application area:

- Ngati Tamaoho and Te Akitai Waiohua provided written acknowledgement that while they have broader interests in the application area, their primary interests are focussed elsewhere and they support and defer to the views of Te Whanau A Haunui and Ngati Whanaunga ki Wharekawa in respect of the application. Copies of this acknowledgement are **attached** to this AEE as Appendix 6.
- Ngati Marui and Ngati Tamatera verbally advised that their interests do not extend to the application area and that they will make personal contact with Auckland Council as they have previously advised that their interests do not extend into the area.
- Te Ahiwaru Waiohua was not contacted as Ngati Tamaoho advised that this marae is not able to respond to resource consent processes and is also known to have an interest in the Makaurau marae area (Auckland Airport), not the application area.
- Waikato-Tainui advised that they were confused as to why they had been contacted about the application as they are not interested in the area.
- Nga Tai ki Tamaki did not provide a response.

5.20 Based on the above feedback received by Ngāti Whanaunga-ki-Wharekawa and Te Whanau ā Haunui Ahuwhenua Trust, Westpac Mussels understands that the interests of these iwi groups is focussed on other areas and that they defer to Ngāti Whanaunga-ki-Wharekawa and Te Whanau ā Haunui Ahuwhenua Trust as the tangata whenua of the area subject to the application. This is further supported by the following:

- On 20 October 2014 the Council provided a copy of the applicant's existing central spat catching application (R/REG/2014/4182) 10 iwi groups asking whether they wished to provide a CIA in respect of that application. Iwi contacted were Ngāti Maru, Ngāti Paoa,

Ngāti Tamaoho, Ngāti Te Ata Waiohua, Ngāti Tamatera, Te Akitai Waiohua, Ngāi Tai ki Tamaki, Ngāti Whanaunga, Te Patukirikiri and Waikato.

- Consistent with Westpac Mussels recent consultation efforts, none of the iwi groups raised any issues with that application or indicated that they wished to provide a CIA.
- Five iwi (Ngāi Tai ki Tamaki, Ngāti Paoa, Ngāti Whanaunga, Te Patukirikiri and Waikato) did not respond to the Council's notification. Ngāti Tamaoho advised that they "were happy to refer to resident iwi", Te Akitai Waiohua advised that they "defer[red] any interest to the local iwi / hapu who [had] already expressed an interest in [the] application", Ngāti Te Ata Waiohua advised that "no consultation [was] required", Ngāti Tamatera advised that they "will be represented by Ngāti Maru regarding [the] project" and Ngāti Maru "acknowledge[d] the consultation to date and [did] not require further consultation or a CIA". Ngāti Paoa and Ngāti Whanaunga did not respond.

6. Monitoring

- 6.1 The RMA requires a description of the monitoring that would be undertaken, where the *scale or significance of effects is such* that monitoring is required. It is considered that the environmental effects would be no more than minor, based on the expert reports in Appendices 2 and 3, and that no specific monitoring requirements are required. Appendix 2 concludes that no ecological, water column or water quality monitoring is justified and none is proposed. (p18)
- 6.2 It is envisaged that the imposition of appropriate consent conditions, would provide a basis for appropriate compliance monitoring.

7. Relevant Planning Provisions

7.1 Introduction

This part of the AEE sets out the relevant planning framework, to assist with the subsequent assessment under s104(1)(b) of the RMA.

7.2 New Zealand Coastal Policy Statement

- 7.2.1 The operative New Zealand Coastal Policy Statement (2010) (NZCPS) includes a strong management directive for Aquaculture, in Objective 6 and Policy 8 in particular. Together these policy directives recognise that aquaculture activities (as proposed by the application) are an appropriate use of the CMA and they recognise the important value aquaculture can provide for social, cultural and economic well-being.

7.2.2 The NZCPS states in Objective 6

To enable people and communities to provide for their social, economic, and cultural wellbeing and their health and safety, through subdivision, use, and development, recognising that:

- the protection of the values of the coastal environment does not preclude use and development in appropriate places and forms, and within appropriate limits;*
- some uses and developments which depend upon the use of natural and physical resources in the coastal environment are important to the social, economic and cultural wellbeing of people and communities;*
- functionally some uses and developments can only be located on the coast or in the coastal marine area;*
- the coastal environment contains renewable energy resources of significant value;*
- the protection of habitats of living marine resources contributes to the social, economic and cultural wellbeing of people and communities;*
- the potential to protect, use, and develop natural and physical resources in the coastal marine area should not be compromised by activities on land;*
- the proportion of the coastal marine area under any formal protection is small and therefore management under the Act is an important means by which the natural resources of the coastal marine area can be protected; and*
- historic heritage in the coastal environment is extensive but not fully known, and vulnerable to loss or damage from inappropriate subdivision, use, and development.*

7.2.3 The NZCPS states in Policy 8:

Recognise the significant existing and potential contribution of aquaculture to the social, economic and cultural well-being of people and communities by:

- a. including in regional policy statements and regional coastal plans provision for aquaculture activities in appropriate places in the coastal environment, recognising that relevant considerations may include:
 - i. the need for high water quality for aquaculture activities; and*
 - ii. the need for land-based facilities associated with marine farming;**
- b. taking account of the social and economic benefits of aquaculture, including any available assessments of national and regional economic benefits; and*
- c. ensuring that development in the coastal environment does not make water quality unfit for aquaculture activities in areas approved for that purpose.*

7.2.4 Other NZCPS policies of particular relevance to the application include: Policies 4 & 6 (in relation to the integration of land and water activities of aquaculture and use of renewable resources); Policies 13 & 15 (in relation to preserving natural character and protecting natural features); and Policies 21 & 23 (in relation to water quality).

7.2.5 With regard to Policy 4, the application outlines the facilities available for managing the loading and unloading of equipment and product, and the associated storage above MHWS.

- 7.2.6 With regard to Policy 6 (1) (e & f, h & i), the land based facilities available are appropriate for aquaculture activities and will be used for the operation of aquaculture in the CMA. The area is set back from the road, is an existing quarried site, has limited access (padlocked gate) and has less than minor effects on visual or natural character characteristics of the area. The facilities are currently used by the applicant for its existing marine farming activities and any new effects arising from the use of the facilities for the proposed farm activities will be minimal.
- 7.2.7 With regard to Policy 6 (2)(a, c, e) it is considered that the proposed marine farming activities would contribute significantly to the social and economic well-being of people and communities from the use of the CMA, by providing a strong economic base for the future of this industry in the Firth of Thames (as also anticipated by NZCPS Policy 8) and ensuring that the CMA is used as efficiently as possible. As noted above, the applicant seeks as part of this application to develop a local supply of spat to reduce the current reliance on wild spat sourced from Ninety-Mile beach and ensure the ongoing viability of mussel farming in the Firth of Thames.
- 7.2.8 With regard to policies 13 & 15, the information provided in the report in Appendix 3 supports the conclusion that mussel farming is an appropriate use in the proposed area. The information provided in this report notes that the adverse effects from the proposed area would be less than minor. Further detail assessing these policies is found in the report in Appendix 3. There are no areas identified as outstanding landscapes or outstanding natural character in or near to the proposed site.
- 7.2.9 With regard to policies 21 & 23 the information provided in the attached report (Appendix 2) supports the conclusion that the impacts on water quality would be negligible.
- 7.2.10 In considering the above-mentioned objective and policies, there is a strong directive for enabling aquaculture along with balancing the impacts on natural character and landscape. In my opinion, the proposed area subject to this application is an appropriate use in this area and the application is consistent with the directions of the New Zealand Coastal Policy Statement and would meet the purpose of the RMA.

7.3 Hauraki Gulf Marine Park Act

- 7.3.1 Sections 7 and 8 of the Hauraki Gulf Marine Park Act (2000) (HGMPA) have the effect of an NZCPS. This Act promotes a co-operative approach to the integrated and sustainable management of the Hauraki Gulf. This Act recognises the importance of the Hauraki Gulf and the diversity of the marine ecosystem and the wide values and uses people have of the area.
- 7.3.2 Section 7 recognises the national significance of the Gulf and emphasises the life-supporting capacity of the Gulf and in particular identifies that this:

“...includes the capacity -

(a) to provide for the ... relationship of the tangata whenua of the Gulf with the Gulf ... and the ... wellbeing of people and communities,

*(b) to use the resources of the Gulf ...for economic activities and recreation...and
(c) to maintain the...water and ecosystems of the Gulf”.*

7.3.3 In relation to the wider Firth of Thames, I consider that the proposed area is consistent with these NZCPS directives and would meet the purpose of the Hauraki Gulf Marine Park Act.

7.3.4 Section 8 identifies management objectives. These relate to a range of environmental, Maori and community matters, and have been addressed in this AEE. The protection of kaimoana is one objective, and based on the assessments referred to in this AEE, there will be no adverse effects on this resource as a result of these applications, due to the distance from shore and the negligible impact on nutrients in the water column. Sub-section 8(e) states:

“the maintenance and, where appropriate, the enhancement of the contribution of the ...physical resources of the Hauraki Gulf...to the social and economic well-being of the people and communities of the Hauraki Gulf and New Zealand”.

Aquaculture provides an opportunity to enhance the social and economic wellbeing of people and communities of the Hauraki Gulf (as discussed above and further below). This also directly reflects Policy 8 of the NZCPS 2010.

7.3.5 In my opinion, the area that is the subject of this application is consistent with the directions of this NZCPS.

7.3.6 It is noted that under this legislation the Hauraki Gulf Forum has prepared a marine spatial plan. This plan was released in December 2016. This is a non-statutory plan and an assessment of the proposal in relation to this plan is discussed below.

7.4 Auckland Unitary Plan

7.4.1 **Status of the AUP provisions relevant to this application:** The Auckland Council’s decisions on the AUP were publicly notified on 19 August 2016. The AUP became operative in part on 15 November 2016 and was updated on 23 May 2017. Some parts of the AUP remain subject to appeal and will not be made operative until the appeals are resolved.

7.4.2 The parts of the AUP that are particularly relevant to this application include:

- Chapter B Regional Policy Statement (B1 Issues of Regional Significance, B4 Natural Heritage, B6 Mana Whenua, B7 Natural Resources and B8 Coastal Environment).
- Chapter E Auckland-wide provisions (E18 Natural character of the coastal environment and E19 Natural features and natural landscapes in the coastal environment).
- Chapter F2 Coastal – General Coastal Marine Zone (F2.14 Use, development and occupation in the coastal marine area, F2.15 Aquaculture, F2.19.9 Activity table, F2.20 Notification).

7.4.3 Chapter D Overlays (D10.2 and 10.3 Outstanding Natural Features Overlay and Outstanding Natural Landscapes Overlay and D11.2 and 11.3 Outstanding Natural Character and High Natural

Character Overlay) also have some limited relevance. While there are some overlays that are identified along the coastal edge (as discussed by Mr Hudson in Appendix 3), these overlays are located at a significant distance from the proposed farm site. However, it is noted that there are no overlays relating to the proposed farm site.

- 7.4.4 The relevant provisions in Chapter B and Chapter E18 and provisions D10.2, D11.2 and 11.3 and the High Natural Character (HNC) overlays are operative.
- 7.4.5 Provision D10.3 and the mapping of Outstanding Natural Landscape (ONL) overlays (62 and 63) are subject to the appeal CIV-2016- 404- 002299 by Federated Farmers of New Zealand. Therefore, D10.3 and the ONL overlays are not operative and cannot be treated as operative and the comparative provisions in the legacy Auckland Regional Policy Statement will also apply in this instance.
- 7.4.6 The relevant provisions of the AUP in chapter F2 Coastal – General Coastal Marine Zone, have not yet been made operative.³ However, they can now be treated as if they are operative (and the corresponding provisions in the legacy plans as inoperative). This is because the time for lodging appeals on the decisions version of the AUP has expired and all appeals in respect of this chapter have been resolved (section 86F of the RMA).
- 7.4.7 **Zoning:** The AUP maps show that the proposed application area falls within the general coastal marine zone which comprises the majority of the CMA outside other specified zones. There are no overlays impacting on the proposed area. The mapping of the General Coastal Marine Zone to the Firth of Thames is not subject to appeal and is now considered as operative.
- 7.4.8 **Chapter B – RPS:** In B1.4 the AUP identifies nine issues of regional significance. Issue 7 relates to the coastal environment, and is particularly relevant for aquaculture. Other issues of particular relevance include Issue 4 which relates to natural heritage (landscapes, natural features, volcanic viewshafts and trees) and Issue 5 which relates to issues of significance to Mana Whenua.
- 7.4.9 **B.4.1 addresses natural heritage.** Natural heritage is described as being made up of natural landscape and natural features which together create natural character and environmental quality. The need to protect outstanding matters in the coastal environment from inappropriate subdivision, use and development is noted. Of particular relevance, objective B4.2.1 addresses outstanding natural features and landscapes and the ancestral relationship of mana whenua with landscapes and features. The proposed area is not located in or near any area of outstanding natural landscape/ feature or natural character. The applicant appreciates the importance of the ancestral relationship of mana whenua with the landscapes and features of the Firth of Thames and has completed extensive consultation, and established a partnership, with iwi having Mana Whenua/ Mana Moana over the application area. This is expanded further

³ The provisions would not be made operative until approved by the Minister of Conservation under Schedule 1 clause 19 of the RMA and section 152 of the Local Government (Auckland Transitional Provisions) Act 2010. In the meantime, the provisions can be treated as if they are operative.

under section 5 above on consultation. The proposed marine farm is not contrary to this section of the RPS.

- 7.4.10 **B6 addresses Mana Whenua**, identifying issues including enabling development that contributes to lifting Maori social, cultural and economic well-being and recognising the interests, values and customary rights of Mana Whenua in the sustainable management of resources. This issue is supported by Policy B6.2.2 in particular, which is about providing opportunities for Mana Whenua to participate in resource management. This has been given effect to by the applicant, through the extensive consultation undertaken with the iwi holding Mana Moana over the proposed area of the application and through establishing a partnership with Ngāti Whanaunga ki Wharekawa and Te Whanau ā Hanunui Ahuwhenua Trust. The parties have also agreed to create a Steering Group if the application is granted that will provide a mechanism through which the applicant, Ngāti Whanaunga ki Wharekawa and the Te Whanau ā Hanunui Ahuwhenua Trust can continue to engage about the farm, manage any effects, give effect to Ngāti Whanaunga ki Wharekawa and Te Whanau ā Hanunui Ahuwhenua Trust's role as kaitiaki, facilitate knowledge sharing and communication and collaborate on joint projects etc. The objectives and policy directives of B6.3 – recognising Mana Whenua values and B6.5 protection of Mana Whenua cultural heritage have also been addressed by the discussions held as a part of the consultation process and the relationship established between the applicant, Ngāti Whanaunga ki Wharekawa and Te Whanau ā Hanunui Ahuwhenua Trust. Attention is also drawn to the positive Cultural Impact Assessment that will be submitted in support of this application.
- 7.4.11 **B7.4 addresses natural resources in respect of coastal water**. Objective B7.4.1(1) requires coastal waters to be used within identified limits while safeguarding their life-supporting capacity and values. Objective B7.4.1(2) requires the quality of coastal water to be maintained where it is excellent or good and progressively improved over time where it is degraded. Objective B7.4.1(6) requires Mana Whenua values, matauranga and tikanga associated with coastal water, freshwater and geothermal water are recognised and provided for, including their traditional and cultural uses and values. The presence of the proposed marine farm will be consistent with all of these objectives. The farm will not adversely affect the water quality in the Firth of Thames, rather filter feeders have a positive impact on water quality. Marine farms require high water quality in order to meet healthy growing conditions and food safety standards. In addition, a regular water quality monitoring program is undertaken by marine farmers. Further, Mana Whenua values, matauranga and tikanga with coastal waters will be recognised through the applicant's ongoing relationship with Ngāti Whanaunga ki Wharekawa and Te Whanau ā Hanunui Ahuwhenua Trust. It is also noted that Figure B7.4.2.1 does not indicate the proposed area as being a degraded site.

- 7.4.12 **B8 addresses the coastal environment**, and as such is the most relevant to consider in terms of marine farming. The issue identifies that some activities (such as aquaculture) require a coastal location and that provision needs to be made for these in appropriate locations.
- 7.4.13 **B8.2 addresses natural character** and sets out 3 objectives:
- a) Areas of the coastal environment with outstanding and high natural character are preserved and protected from inappropriate subdivision, use and development
 - b) Subdivision, use and development in the coastal environment are designed, located and managed to preserve the characteristics and qualities that contribute to the natural character of the coastal environment.
 - c) Where practicable, in the coastal environment areas with degraded natural character are restored or rehabilitated and areas of high and outstanding natural character are enhanced. (It is considered that this is not applicable to the area of the proposed farm.)
- 7.4.14 The proposed area is not located within any area identified in the planning maps as having outstanding or high natural character. The proposed marine farm has also been specifically located to avoid impacts on landward areas and people's appreciation and view of the natural character of near shore areas. This matter is further discussed by Mr Hudson in the expert report attached as Appendix 3, where it is concluded that any adverse effects on natural character would be less than minor.
- 7.4.15 The above objectives are supported by a number of policies. Policy B8.2.2(4) is the most relevant – requiring adverse effects on natural character which are not “outstanding” or “high” to be managed to avoid “significant adverse effects” and that other adverse effects are avoided, remedied or mitigated. Drawing on the expert report in Appendix 3, the adverse effects on natural character will not be significant and are adequately mitigated by the nature of the structure being low lying in the water and the distance from shore.
- 7.4.16 The objectives in **B8.3.1 address subdivision, use and development** in the coastal environment. There are seven objectives:
- B8.3.1(1) requires that use and development is in appropriate places and are of an appropriate form and within appropriate limits. The proposed site has been carefully selected to avoid conflict with other uses in the CMA and it is considered to be an appropriate activity in the Firth of Thames.
 - B8.3.1(2) requires that the adverse effects of use and development on the values of the coastal environment are avoided, remedied or mitigated. It is contended that this application meets this policy directive and that the supporting expert reports endorse this view.
 - B8.3.1(3) focuses on efficient use and that activities (such as marine farming) are provided for in appropriate locations. The proposed layout seeks to maximise the efficient use of the space being applied for, while recognising the need to ensure phytoplankton is available for

each of the blocks, and providing accessways for other users. It is contended that, based on the discussion of this matter above, this area is an appropriate location for marine farming.

- B8.3.1(4) addresses functional and operational need. The proposed marine farm has a clear functional and operational need to locate within the CMA.
- B8.3.1(5) addresses integrated management with land based requirements. As discussed in this AEE, the applicant already has a lease arrangement to utilise the Stevenson's Quarry area, for storage of equipment as well as berthing a service vessel, and loading and unloading equipment and product. It will seek a further land use consent to expand its activities at this site or an alternative site, if required.
- B8.3.1(6) requires conflicts between activities to be avoided, remedied or mitigated. The location of this farm is such that any conflicts arising would only be from a limited number of other vessels wishing to access this area. The potential for this conflict is mitigated by the overall layout of the proposed farm and the navigation safety requirements such as lighting, radar and use of coloured floats.
- B8.3.1(7) is concerned with coastal hazards and avoiding increasing the risk of harm. The design of the structures is such that it would ensure the structures remain in place, even in stormy weather or other coastal hazards. The proposed farm would be well maintained and monitored to ensure any equipment failures were rapidly remedied.

7.4.17 In the context of these objectives, the policies in B8.3.2 which are most relevant include:

- B8.3.2(1) which recognises the contribution that use and development makes to the social, economic and cultural wellbeing of people and communities. The proposed marine farm would make a significant contribution to the social, economic and cultural well-beings as has been outlined in above section of this AEE.
- B8.3.2.(3) is an enabling policy to provide for use and development in the coastal marine area that have a functional need which requires the use of the natural and physical resources of the coastal marine area, that are for public benefit or recreation, have an operational need making a location in the coastal marine area appropriate and that cannot practicably be located outside the coastal marine area, or enable the use of the coastal marine area by Mana Whenua for Maori cultural values and customary uses. Marine farming meets this policy as it has a clear functional and operational need to locate in the coastal marine area and cannot practically be located outside of that environment.
- B8.3.2(10) provides for aquaculture in appropriate places, forms and within appropriate limits in the coastal marine area, taking into account the quality of water required for the aquaculture activity, land-based facilities and infrastructure required to support the activities and the potential social, economic and cultural benefits associated with the activities. The application is consistent with these policies and is appropriately located. The quality of the water in the proposed area is high and is suitable for marine farming. Land based facilities and infrastructure have been provided for at Stevenson's Quarry. There are

potentially significant benefits socially, economically and culturally for marine farming to expand in the Firth of Thames, and as discussed in this AEE and supporting documentation.

- 7.4.18 The objectives and policies in **B8.4, address public access and open space**. The application is consistent with these provisions. The applicant is not seeking exclusive occupation of space in the coastal marine area. Other users of the area will be free to navigate through and around the farm blocks. It is acknowledged that the presence of a farm will attract fish to the area, and by association recreational fishers, who will not be restricted from fishing around and within the farm.
- 7.4.19 The objectives and policies in **B8.5 address the management of the Hauraki Gulf**. The importance of the Hauraki Marine Park Act is discussed above. Marine farming is clearly an activity which would utilise natural resources for economic well-being and without further degrading the marine ecosystems. Policy 3 in particular, focuses on cumulative effects on ecological and amenity values. For the reasons given in section 3.8, the cumulative effects of the application and the other existing mussel and spat catching farms in the Firth of Thames will be less than minor. This proposed farm is located at a significant distance from existing farms, and the cumulative effect on ecological values would be minimal. In terms of amenity values, the farm is clearly adding new structures into the CMA, but the farm is well-distanced from land and from other farms and the farm structures will not be visible from shore. It is contended that while there would be a loss in some amenity for a sea-based viewing audience, there would also be positive effects for users of the area, particularly recreational fishers. Policy 5 addresses use and development that will compromise the natural character, landscape, conservation and biodiversity values of islands. Natural character and landscape issues have been discussed above. There are no areas scheduled in the AUP that relate to the proposed area. Policies 11 – 13 address Mana Whenua's relationship with the Hauraki Gulf. These matters have been addressed by the applicant through extensive consultation with tangata whenua and the establishment of a strong and ongoing working relationship with Ngāti Whanaunga ki Wharekawa and Te Whanau ā Hanunui Ahuwhenua Trust. Policy 15 seeks to identify and maintain areas of high recreational use within the Hauraki Gulf. It is acknowledged that the Firth of Thames is highly used by recreational boaties, with many accessing the current farm areas for recreational fishing. It is also contended that the proposed location of the farm and the navigation safety requirements, would enable the area to be navigated through/ around safely by vessels. Policies 17 and 19 seek to provide for commercial activities and economic development that complements the values of the Hauraki Gulf. The Firth of Thames area of the Hauraki Gulf is already highly valued for marine farming purposes and already supports a vibrant industry. The proposed farm site and activity are well aligned with these policies.
- 7.4.20 **Chapter D10 addresses Outstanding Natural Features (ONF) Overlay and Outstanding Natural Landscapes (ONL) Overlay**. There are three relevant objectives (supported by seven policies):

- D10.2(1): ONF and ONL are protected from inappropriate subdivision, use and development. Drawing on the information provided in this AEE and in the supporting expert reports, it is contended that this application is an appropriate activity in the Firth of Thames.
- D10.2(2): Ancestral relationships of Mana Whenua with ONF and ONL are recognised and provided for. The relationship mana Whenua have with this area has been recognised and this matter is addressed further in section 5 of this AEE.
- D10.2(3): Where practical restoration and enhancement of ONF and ONL in the Hauraki Gulf is promoted.

7.4.21 There are no features identified as ONF in the vicinity of the proposed marine farm site. While there are some ONL overlays that are identified along the coastal edge (as discussed by Mr Hudson in Appendix 3), these overlays are located at a significant distance from the proposed farm site. Mr Hudson concludes that adverse effects from the proposed farm on any ONL identified in the overlays is avoided (Appendix 3).

7.4.22 **Chapter D11 addresses Outstanding Natural Character (ONC) and High Natural Character (HNC) Overlay.** There are two objectives (and supported by two policies):

- D11.2(1) requires that natural characteristics and qualities of ONC and HNC are preserved and protected from inappropriate subdivision, use and development;
- D11.2(2) where practicable ONC or HNC values in the Hauraki Gulf are enhanced.

7.4.23 There are no areas identified as ONC in the vicinity of the proposed marine farm and the HNC overlays are located at a significant distance from the proposed farm site. Mr Hudson concludes (Appendix 3) that any adverse effects on HNC is not considered to be significant. Overall, Mr Hudson concludes that the applications will result in adverse effects on landscape, visual and natural character that are less than minor.

7.4.24 **Chapter E18 Auckland wide provisions: Natural Character of the coastal environment:** E18 applies to areas that are not scheduled in the outstanding natural character and high natural character overlay. E 18.2(1) sets out the Regional Plan objective of maintaining the characteristics and qualities that contribute to natural character, while providing for use and development. This is supported by the policies in E18.3. The effect of the proposed farm area on natural character is addressed in Appendix 3 and this report concludes that any adverse effects would be less than minor. The location, scale and design of the marine farm is such that the structures are low-lying in the water, are a significant distance from shore and do not adversely impact on any landward features, landforms or other landward characteristics. It is acknowledged that there are no structures in this part of the Hauraki Gulf at present, and that there would be a change in the nature of the proposed area by the presence of a new farm. However, there would be no adverse effects on the natural processes of the area and any visual effects would primarily be experienced by a limited number of boaties in the same area. Again, the farm has a functional and operational need to be located in the CMA and it would contribute

to recreational opportunities for fishers (Refer to E18.3(3) in particular). It is considered that the proposed farm is aligned with these policy directives.

7.4.25 **E19 provides objectives and policies related to activities in areas which are not scheduled as being outstanding natural features nor outstanding natural landscapes.** Objective E19.2 seeks to maintain the characteristics and qualities of the area, while providing for use and development. Policy E19.3(2) is relevant to this application site. The location, scale and design of this marine farm has taken into account the effects on landscape and natural features. This has been addressed in the expert report in Appendix 3 which concludes that any adverse effects would be less than minor. While there will be a change in the environment due to the presence of the structures, any adverse effects on marine landscape and features are considered to be minimal. The marine farm has a functional and operational requirement to be located in the CMA.

7.4.26 **Chapter F2 Coastal – General Coastal Marine Zone:** The Regional Coastal Plan is provided for in Chapter F of the AUP. The proposed marine farm is located in the Coastal – General Coastal Marine Zone. The purpose of this zone is stated as being to provide for use and development in the CMA, while (among a wide range of matters) enabling economic well-being through appropriate use and development.

7.4.27 **F2.14 addresses Use, development and occupation in the coastal marine area.** There are nine objectives:

- F2.14(1): High public value of open space and public access maintained. The open space and public access values are balanced with the use of the area for social and economic well-beings. The proposed area will not exclude public access, and will enhance recreational opportunities for fishers.
- F2.14(2): occupation in appropriate locations/ functional need/operational need. The proposed farm clearly has a functional and operational need to locate in the coastal marine area. This AEE, supported by the two expert reports, has identified the appropriateness of the farm in this location.
- F2.14(3): Limit exclusive occupation: the applicant is not seeking exclusive occupation of the proposed site.
- F2.14(4): efficient use by consolidating use and development: The proposed farm is set out in a manner to ensure efficient use of the area, in accordance with industry best practice. The aim of this application is to consolidate spat catching with marine farming, to better integrate the different phases of this industry and to assist with overcoming the spat supply issues currently faced by the industry.
- F2.14(5) & (6): activities that do not have a functional need. These objectives are not relevant to the application.
- F2.14(7): Activities supported by land-based access and infrastructure: As discussed in this AEE the applicant holds a lease for the use of the Stevenson's Quarry wharf and landing area, which is currently used by the marine farming industry (including the applicant).

- F2.14(8): short –term occupation for events and F2.14(9): marinas: are not relevant to this application.

7.4.28 The policies for Use and development are set out in F2.14.3. The most relevant policies include:

- Policy (1) which seeks to enable use and occupation with a functional and operational need to locate in the coastal marine area, including not compromising or limiting existing activities.
- Policy (10) which requires any use and development to demonstrate land based access and infrastructure has been appropriately provided for.
- Policy (11) addresses duration of consent, including taking into account the investment in the development

7.4.29 The proposed marine farm meets these policy directives, as discussed in this AEE. In particular, in section 8 of this AEE a 35 year resource consent term is requested, in order to provide for security of tenure and financial and economic viability.

7.4.30 **Aquaculture is specifically addressed in F2.15.** This chapter envisages new aquaculture development, and notes that it needs to be located in appropriate locations. There are four objectives, of which the following three are relevant:

F2.15(1) recognition of the cultural, social and economic benefits of aquaculture;

F2.15(2) new aquaculture should occur in appropriate locations and at appropriate scales that avoid, or where appropriate minimise conflicts with ecological, social and cultural values and other uses or by activities that degrade water quality.

F2.15(4) managing aquaculture activities to minimise biosecurity risks.

It is considered that this application has addressed all these matters in the AEE and the attached expert reports, and that the proposed farm can be considered to be situated in an appropriate location and is of an appropriate scale. (Refer in particular, to sections 2.5 and 2.7 of this AEE, and the conclusions of the expert reports in Appendices 2 & 3.)

7.4.31 The policies for aquaculture are set out in F2.15.3. Each policy is addressed below.

- Policy 1 is not relevant to this application as the proposed area is not located within any overlays.
- Policy 2 requires that new aquaculture activities are designed and located to avoid significant adverse effects, and to avoid, remedy or mitigate other adverse effects on the characteristics and qualities that contribute to: the values of the Coastal – Mooring Zone, popular and safe navigation routes and anchorages (for example by complying with the current Maritime NZ guidelines for aquaculture), areas with high recreational use or amenity value and public access, and particularly to highly used areas. The proposed farm is not located in an area that would compromise any mooring zone; it is located and would be

- marked in accordance with Maritime NZ guidelines for aquaculture. Public access and recreational use will not be excluded (and from a fishing perspective would be enhanced).
- Policies 3 and 4 relate to established aquaculture activities and minor extensions or realignment of established aquaculture activities are not relevant to this application.
 - Policy 5 requires that structures used for aquaculture, or the introduction or relocation of equipment or stock, are managed to avoid, as far as practicable, the release or spread of harmful aquatic organisms. All equipment to be used on this farm would be new equipment, however there may also be some use of floats and ropes from the applicant's existing farms in the Firth of Thames. Therefore, the release or spread of any new organisms or pest species from equipment imported into the area is unlikely to occur. The risks associated with pest species will be appropriately managed in accordance with current best practice on identification and reporting. The proposed area would be serviced by existing vessels.
 - Policy 7 requires a precautionary approach to be applied for applications for aquaculture activities that propose using species, techniques or locations not previously used for aquaculture and where the adverse effects are uncertain, unknown or little understood but are potentially significant. This policy does not apply as the mussel farming and spat catching proposed in this application relate to a known species, the techniques for the farm are based on current good practice, and the general location of the Firth of Thames is currently used for marine farming. It is considered that the effects of mussel farming in the Firth of Thames are well understood, and are minor.
 - Policy 8 requires reverse sensitivity issues to be avoided and is not relevant to this application.
 - Policy 9 seeks integration and consolidation of land-based facilities required for new aquaculture activities. This is provided by Stevenson's quarry access (or an alternative land-based storage site), as discussed previously in this AEE.
 - Policy 10 provides a method for addressing areas where there is high and competing demand for space, or where tendering (or similar) could be applied. This policy is not considered to be relevant to this application as there is currently no such method in place.
 - Policy 11 requires aquaculture to generally be more appropriate when it is located in areas where it consolidates existing aquaculture activities. It is considered that this proposed farm would consolidate marine farming activities in the Firth of Thames, and that this is an appropriate location for achieving this policy.

7.4.32 The application is consistent with the objectives and policies discussed above. Having considered all the relevant objectives and policies of the AUP, it is considered that the proposed farm in this location is an appropriate use of the CMA.

7.4.33 The activity table relating to aquaculture is set out in F2.19.9. This table identifies new aquaculture in the General Coastal Marine zone as a discretionary activity.

7.5 Hauraki Gulf Forum: Sea Change Tai Timu Tai Pari

7.5.1 The Hauraki Gulf Forum undertook a project entitled “Sea Change”. This project focused on securing a healthy, productive and sustainable resource for all users of the Hauraki Gulf. It was a partnership led by mana whenua and central and local government. The team working on this project developed a non-statutory marine spatial plan (MSP). The MSP was written by a Stakeholder Working Group comprising 14 members reflecting a diverse range of interests including mana whenua, environmental and conservation, commercial and recreational fishing, aquaculture, land use, farming and infrastructure.

7.5.2 The MSP was released in December 2016 and updated in April 2017. The importance of the Hauraki Gulf is recognised in the foreword, along with the importance of kaitiakitanga for mana whenua. This application meets the vision of the MSP, which in brief states:

“Tikapa Moana/ Te Moananui a Toi - the Hauraki Gulf Marine park is vibrant with life, its mauri strong, productive, and supporting healthy and prosperous communities”.

7.5.3 The MSP identifies aquaculture as a key industry sector, which “provides a number of social and economic benefits, including creating wealth and employment, supporting Maori development, providing for research and development, and supporting other sectors such as charter fishing and tourism”. (Part One: Aquaculture). The MSP states the overall vision for aquaculture as being: “prosperous aquaculture positively contributes to the health and well-being of the people and environment of the Hauraki Gulf”. The plan then sets a range of objectives to meet this goal including locating farms in appropriate places.

7.5.4 The stated intention of the MSP in respect of aquaculture is:

“By 2018, have a ‘three tiered’ regulatory regime in place for aquaculture that:

- Specifically enables aquaculture in identified areas where the overall social, economic and environmental benefits of aquaculture to the Hauraki Gulf Marine Park are maximised.*
- Allows case-by-case consideration of aquaculture in areas which may be suitable but which have not been identified as an area where benefits will be maximised.*

Restricts aquaculture in areas which are not suitable for aquaculture.”

7.5.5 The MSP identifies seven areas where mussel farming is considered appropriate for future development. The site subject to this application is not identified in Map 5.1 or Appendix 2 of the MSP, but the MSP acknowledges that these areas are only a preliminary guide, that growth will occur in the aquaculture industry, and that this is also appropriate.

7.5.6 To guide areas of development, the Sea Change Aquaculture Roundtable Technical Report 2 (which contributed to the development of the MSP), set out some principles for identifying suitable sites, which include:

- benefits are maximised (ecological and socio-economic benefits; enabling hapu and iwi);
- biophysical environments are suitable (good flushing/ phytoplankton available);
- does not impact on ecologically significant areas (e.g. reefs, sea grass beds, significant benthic habitat, feeding grounds);
- avoids disruption on the swell corridor (effects on popular surf breaks);
- located away from areas where they will adversely impact on the outstanding natural character of the area or degrade the values of outstanding natural landscapes; and
- located in areas that are not subject to high levels of other uses, not on popular cruising routes or will restrict passage ways for recreational and commercial boating traffic and not popular or safe anchorages.

7.5.7 Based on the information provided and discussed in this application, the proposed farm site meets all these criteria.

7.5.8 Overall, it is considered that the proposed farm is in an appropriate location that is consistent with the criteria and intentions of the MSP.

7.6 Overview of Planning Provisions

7.6.1 The proposed area which is the subject of this application is for mussel farming (including spat catching) activities and the location is shown on the map in Appendix 1.

7.6.2 New farming activities are classified as discretionary activities in the AUP in Table F2.19.9.

7.6.3 For the reasons discussed above and in Appendices 2 & 3, it is considered that the proposed area is consistent with the policy directives of the various planning documents, and is an appropriate activity in the proposed area.

8. Consent Conditions and Notification Requirements

8.1 The applicant seeks a 35 year consent term.

8.2 It is considered that there is no need for any environmental monitoring on the basis of the conclusions reached in the attached technical reports (and section 6 above).

8.3 The applicant is willing to provide the Council with a set of proposed consent conditions for the proposed activity and intends to provide these after the application has been lodged.

8.4 Provision F2.20 of the AUP provides that any application for resource consent for an activity listed in Tables F2.19.1 to F2.19.10 (and not otherwise listed in F2.20(1)) will be subject to the normal test for notification under the RMA.

8.5 It is considered that the application should be non-notified on the basis that:

- The applicant does not request notification;
- There is no planning rule or NES requiring notification;
- The effects are no more than minor;
- Iwi have been consulted extensively and will submit a separate Cultural Impact Assessment in support of this application;
- No persons are adversely affected by the activity in a minor or more than minor way; and
- No special circumstances exist which would justify notification.

9. Conclusions

9.1 The key points of this application are:

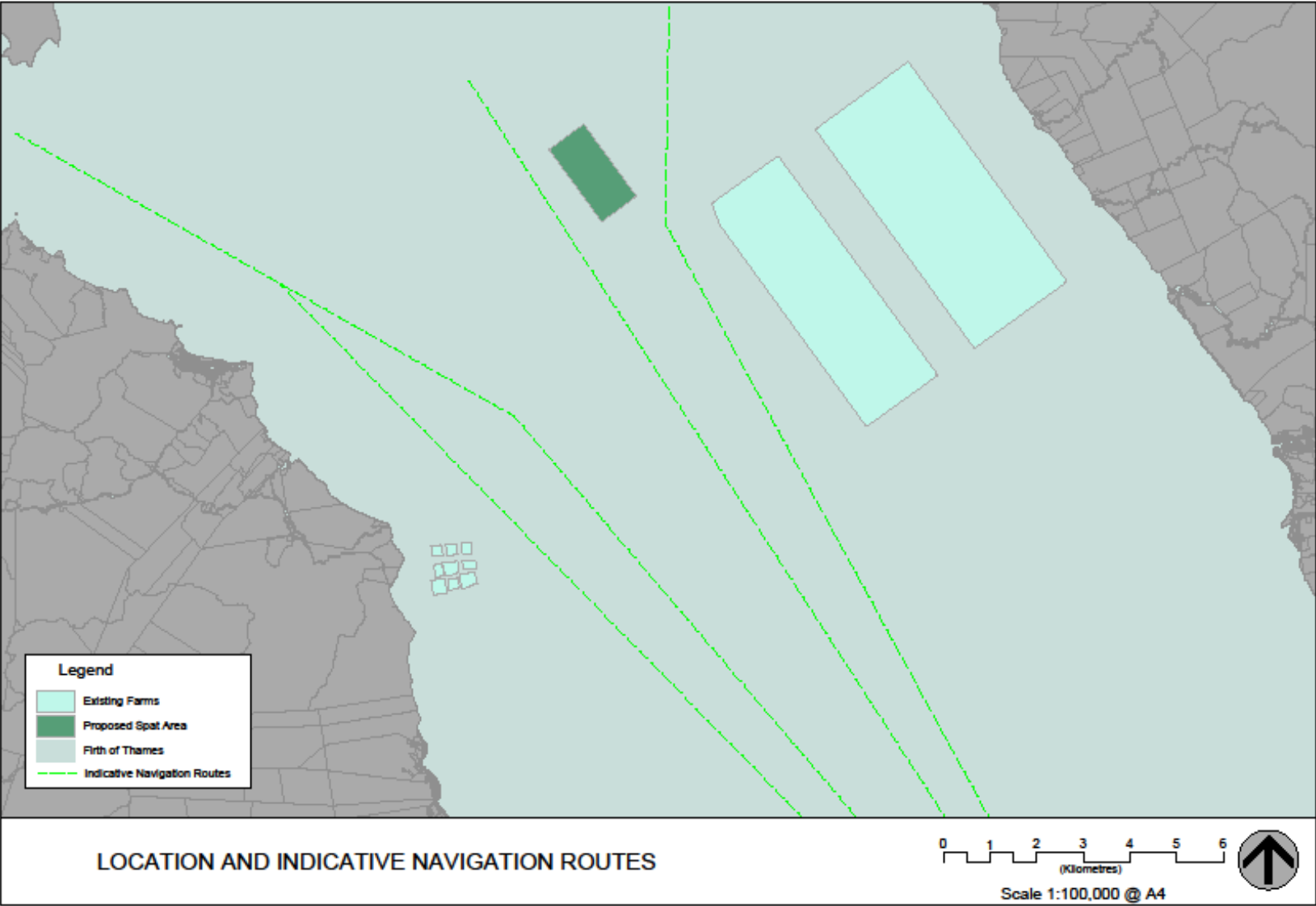
- i) The application is made in respect of an area at Rangipakihi, in the mid-Firth of Thames.
- ii) The activity is mussel farming (including spat catching).
- iii) The proposed mussel farming activities are consistent with the policy directives relevant to the proposed location and meet the relevant policy directives of the NZCPS, HGMPA, and AUP.
- iv) Any adverse environmental effects from the activities in the proposed area are considered to be less than minor, and no person is adversely affected by the proposal in a minor or more than minor way.
- v) Based on the scientific report submitted in support of the applications, the environmental effects of undertaking mussel farming at the proposed site is considered to be less than minor and acceptable.
- vi) Based on the landscape, visual and natural character report submitted in support of the application the adverse effects from the proposed area are less than minor.
- vii) The application provides for the efficient use of the proposed area, while enabling safe recreation and navigation in the area.
- viii) The application enables the development of a more sustainable and robust source of spat for the industry, and growth of the mussel industry, with resultant positive effects on the economic and social wellbeing of the local communities.

Appendices

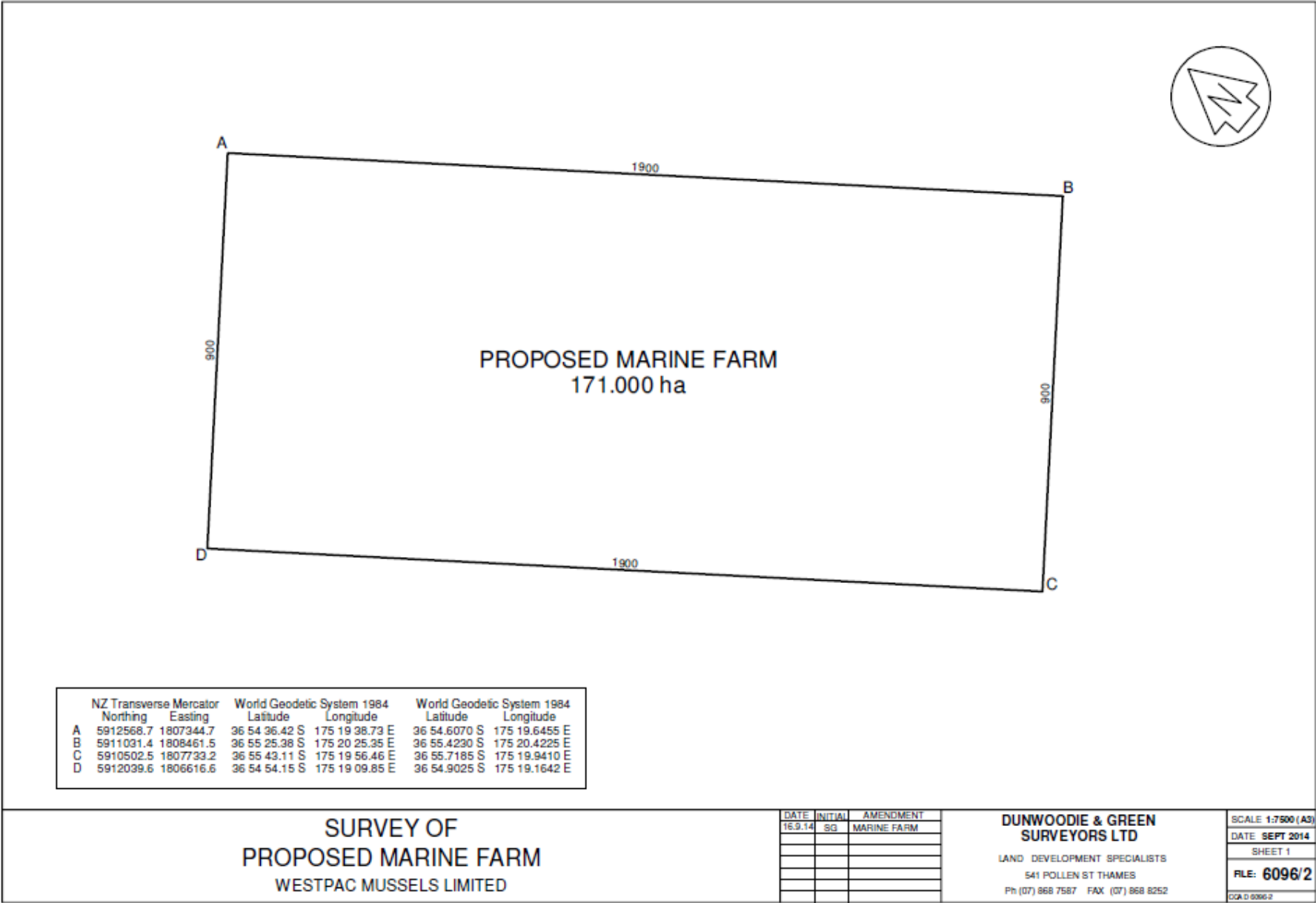
- Appendix 1 A: Location plan & indicative navigation routes
 B: Survey plan
 C: Indicative layout & structures
 D: Proposed lighting plan
- Appendix 2 Poynter, M., 2017. *Proposed Mussel Farming and Spat Catching Area: Northern Firth of Thames: For Westpac Mussels Distributors Ltd: Application for Resource Consent: Ecological Report*. 4Sight Consulting.
- Appendix 3 Hudson, J., 2017. *Assessment of Landscape and Visual Effects, Firth of Thames Rangipakihi Marine Farm*. Hudson Associates Landscape Architects.
- Appendix 4 Written approvals of Ngāti Whanaunga-ki-Wharekawa, Te Whanau ā Haunui Ahuwhenua Trust and Ngāti Paoa.
- Appendix 5 Cultural impact statement prepared by Tipa Compain on behalf of Ngāti Whanaunga-ki-Wharekawa and Te Whanau ā Haunui Ahuwhenua Trust.
- Appendix 6 Consultation feedback received from Ngati Tamaoho and Te Akitai Waiohua.

Appendix 1

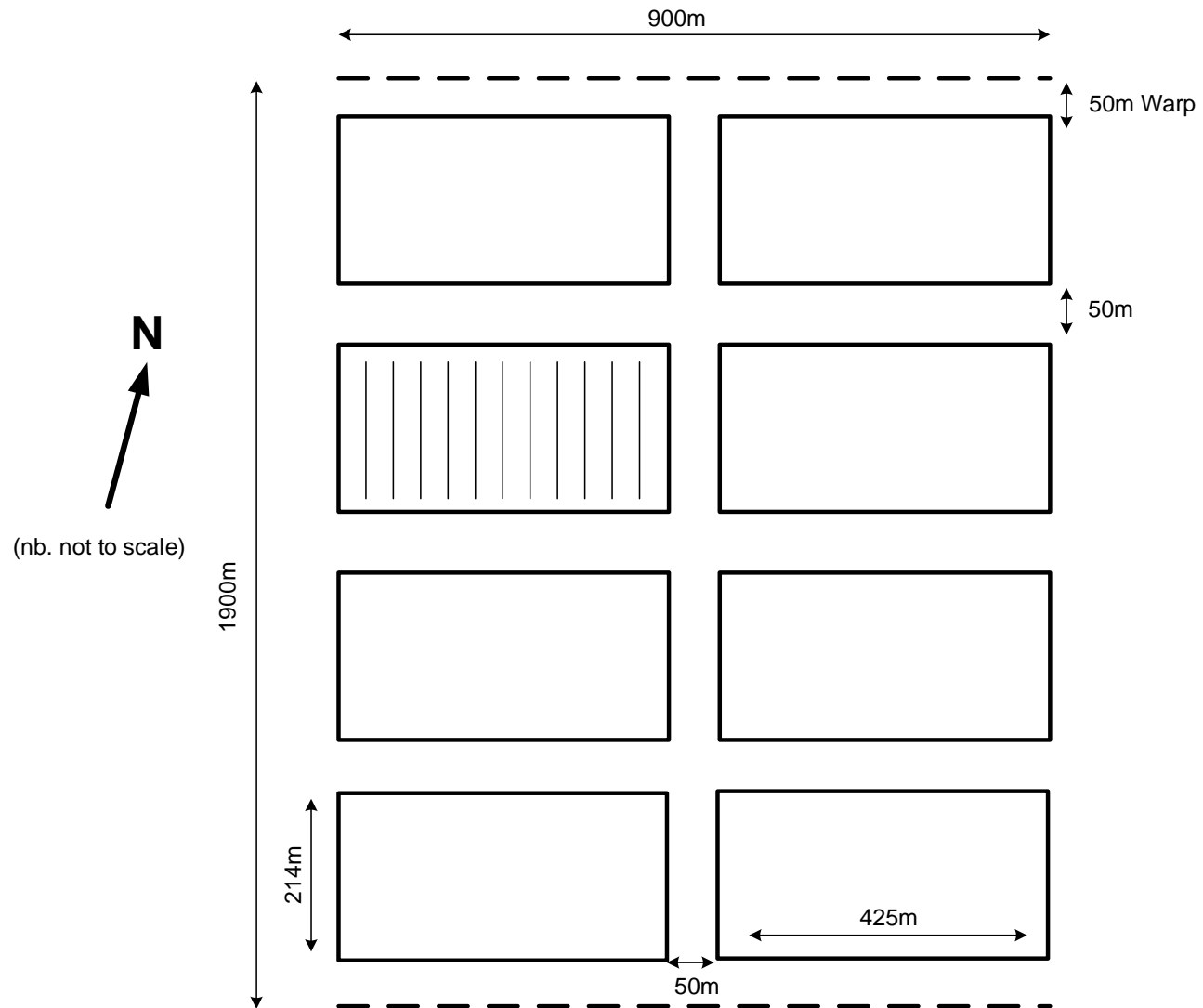
Appendix 1:A: Location plan & indicative navigation routes



Appendix 1:B: Survey Plan

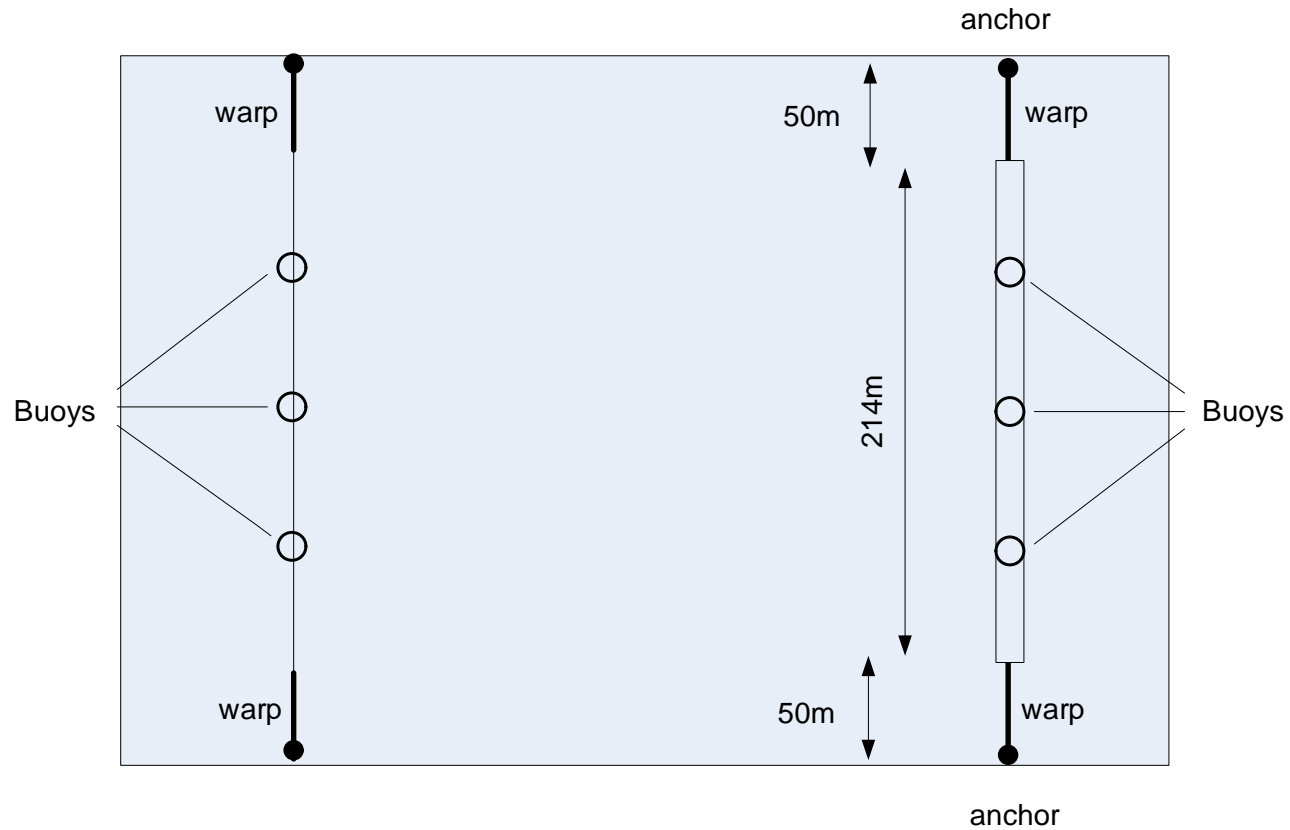


Appendix 1: C: Indicative Layout & Structures



Westpac Mussel Distributors Ltd . Mussel Farming Structures

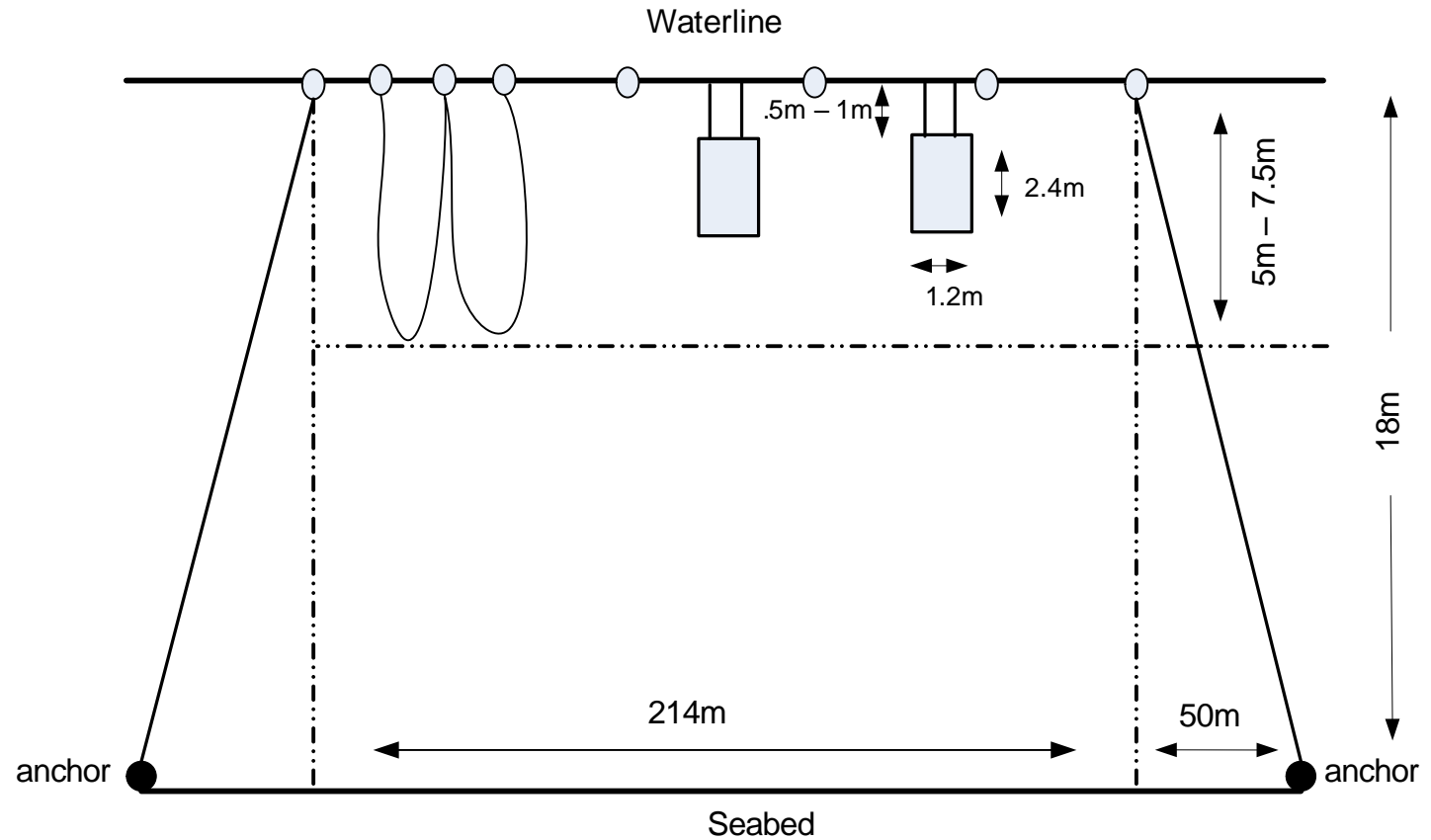
**Diagram 1.
Top View
(not to scale)**



- Either single (left side of diagram) or double (right side of diagram) backbones would be used
- Approx. 15m to 20m between each line
- Average 2.5 – 3.5 lines per ha.

Westpac Mussel Distributors Ltd.
Mussel Farming and Spat Catching Structures
(continuous rope dropper or suspended frames)

Diagram 2.
Side View
(not to scale)



Appendix 1:D Proposed Lighting Plan

