

Resource Consent Application



**MARLBOROUGH
DISTRICT COUNCIL**

This application is made under Section 88 of the Resource Management Act 1991

Please read and complete this form thoroughly and provide all details relevant to your proposal. Feel free to discuss any aspect of your proposal, the words used in this form or the application process with Council staff, who are here to help.

This application will be checked before formal acceptance. If further information is required, you will be notified accordingly. When this information is supplied, the application will be formally received and processed further.

You may apply for more than one consent that is needed for the same activity on the same form.

For Office Use

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Document Number:
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Receipt No. 1820725

Consent No. _____

Case Officer: _____

Date Received: _____

RECEIVED
10 NOV 2017
**MARLBOROUGH
DISTRICT COUNCIL**

1. Applicant details *(If a trust, list full names of all trustees.)*

Name:
(full legal name)

Aroma Aquaculture Limited

Attention: General Manager

Mailing address:
(including post code)

C/- Mr Merv Whipp
General Manager, Aroma Aquaculture Limited, 1 Rangitane Drive, HAVELOCK 7100

Email Address: merv@aromanz.com

Phone: (Daytime) _____

Phone: (Mobile) 027 557 3077

2. Agent Details *(If your agent is dealing with the application, all communication regarding the application will be sent to the agent.)*

Name: R D Sutherland

Mailing address:

Property and Land Management Services Ltd
PO Box 751
BLenheim 7240

Email Address: palmsltd@xtra.co.nz

Phone: (Daytime) (03) 578 1733

Phone: (Mobile) _____

027 220 7299

3. **Consent/Application Details**

Coastal Permit Discharge Permit Land Use Subdivision Water Permit

4. **Brief Description of the Activity**

It is proposed to renew marine farm site 8493 being U080178 (3.2.48 ha) & MFL 093 (3.0ha), and marine farm site 8494 being U050167 (0.75 ha), both sites creating a total zone of 10.49 hectares site to enable the continuing cultivation of Green Shell mussels (*Perna canaliculus*) and Blue Shell mussels (*Mytilus galloprovincialis*).

Consent is also sought to disturb the seabed with anchoring devices and to harvest marine farming produce including taking and discharge of coastal seawater and discharge biodegradable and organic waste matter during harvest. Length of term requested is 20 years to 2037. Existing consents MFL 093, U080178 and U050167 will be surrendered on confirmation of consent being issued.

5. **Supplementary Information Provided?**

Yes No

Council has supplementary forms for some activities, such as moorings, water permits, domestic wastewater, discharge permits, to assist applicants with providing the required information.

6. **Property Details**

The location to which the application relates is (address): Marine farm sites 8493 & 8494, Pigyard Bay, Kenepuru Sound

Legal description (i.e. Lot 1 DP 1234): _____

(Attach a sketch of the locality and activity points. Describe the location in a manner which will allow it to be readily identified e.g. house number and street address, Grid Reference, the name of any relevant stream, river, or other water body to which application may relate, proximity to any well known landmark, DP number, Valuation Number, Property Number.)

(Please attach a copy of the Certificate of Title that is less than 3 months old (except for coastal or water permits.)

The names and addresses of the owner and occupier of the land (other than the applicant):

Please attach the written approval of affected parties/adjoining property owners and occupiers.

Note: As a matter of good practice and courtesy you should consult your neighbours about your proposal. If you have not consulted your neighbours, please give brief reasons on a separate sheet why you have not.

7. **Assessment of Effects on the Environment (AEE)** *(Attach separate sheet detailing AEE.)*

I attach, in accordance with the Schedule Four of the Resource Management Act 1991, an assessment of environmental effects in a level of detail that corresponds with the scale and significance of the effects that the proposed activity may have on the environment. Applications also have to include consideration of the provisions of the Resource Management Act 1991 and other relevant planning documents.

Note: Failure to submit an AEE will result in return of this application.



8. **Other Information**

Are additional resource consents required in relation to this proposal? If so, please list and indicate if they have been obtained or applied for.

I attach any other information required to be included in the application by the relevant Resource Management Plan, Act or regulations. Yes No

9. **Fees**

- 1. The applicable lodgement (base) fee is to be paid at the time of lodging this application. If payment is made into Council's bank account 02-0600-0202861-02, please put Applicant Name and either U-number, property number or consent type as a reference. If you require a GST receipt for a bank payment, please tick
- 2. The final cost of processing the application will be based on actual time and costs in accordance with Council's charging policy. If actual costs exceed the lodgement fee an invoice will be issued (if actual costs are less, a refund will be made). Invoices are due for payment on the 20th of the month following invoice date. Council may stop processing an application until an overdue invoice is paid in full. Council charges interest on overdue invoices at 15% per annum from the date of issue to the date of payment. In the event of non-payment, legal and other costs of recovery will also be charged.
- 3. Please make invoice out to: Applicant Agent
(if neither is ticked the invoice will be made out to Applicant)

10. **Declaration**

I (please print name) R D Sutherland

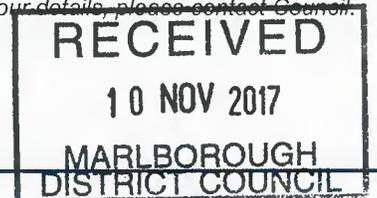
Confirm that the information provided in this application and the attachments to it are accurate.

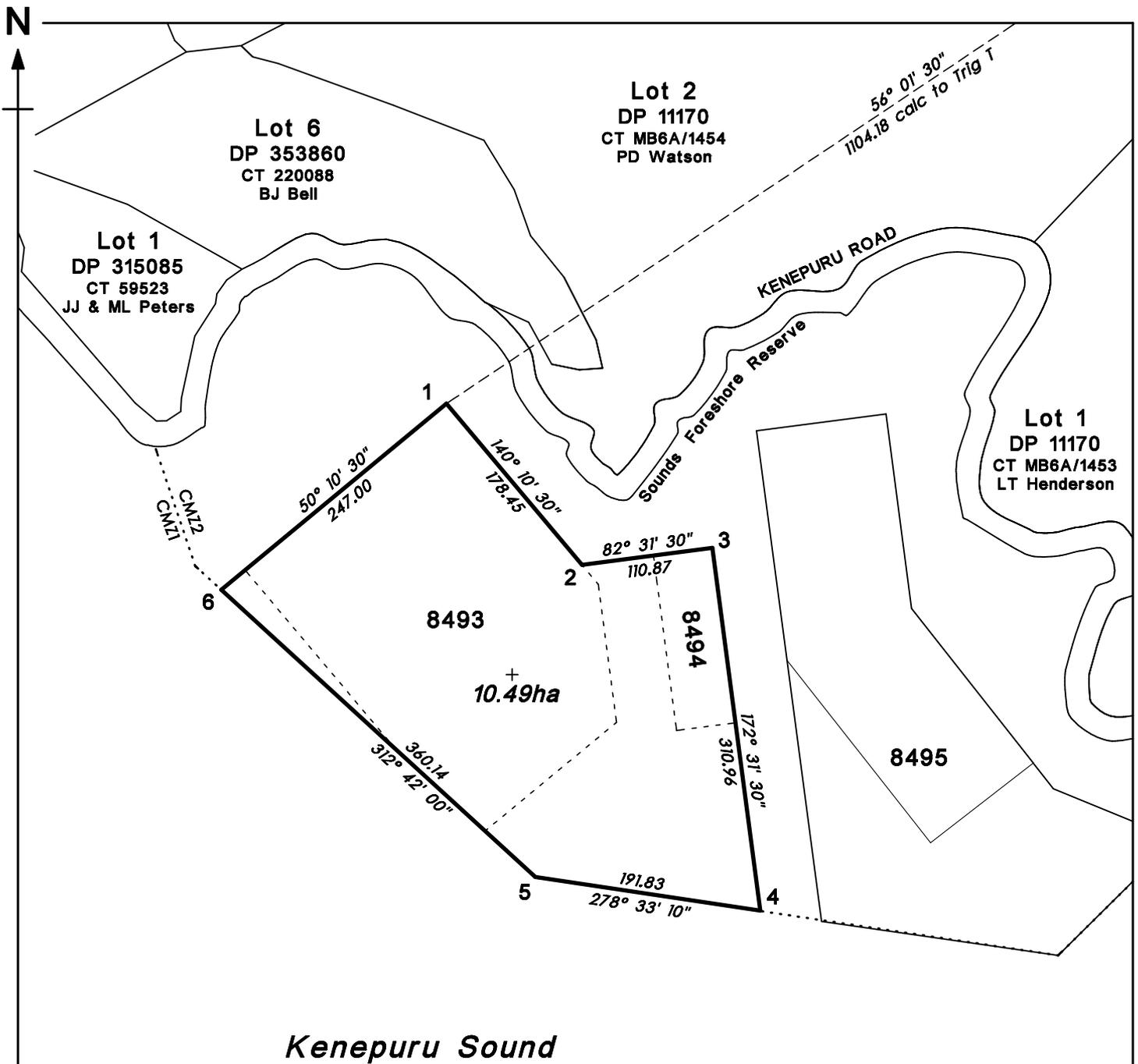
Signature of applicant or authorised agent: *RDSutherland*

Date 10-11-2017

Privacy Information

The information you have provided on this form is required so that your application can be processed and so that statistics can be collected by Council. The information will be stored on a public register and held by Council. Details may be made available to the public about consents that have been applied for and issued by Council. If you would like access to or make corrections to your details, please contact Council.





Kenepuru Sound

SCHEDULE OF COORDINATES		
DATUM: NZTM2000		
Point	East	North
1	1687651.57	5441160.62
2	1687765.85	5441023.57
3	1687875.78	5441038.00
4	1687916.23	5440729.68
5	1687726.54	5440758.21
6	1687461.86	5441002.44
Centroid	1687707.01	5440930.31
Trig T	1688567.27	5441777.64

MARLBOROUGH DISTRICT COUNCIL
Datum: NZTM

This site has not been surveyed
Cadastral Data from Land Information New Zealand Data



PALMS

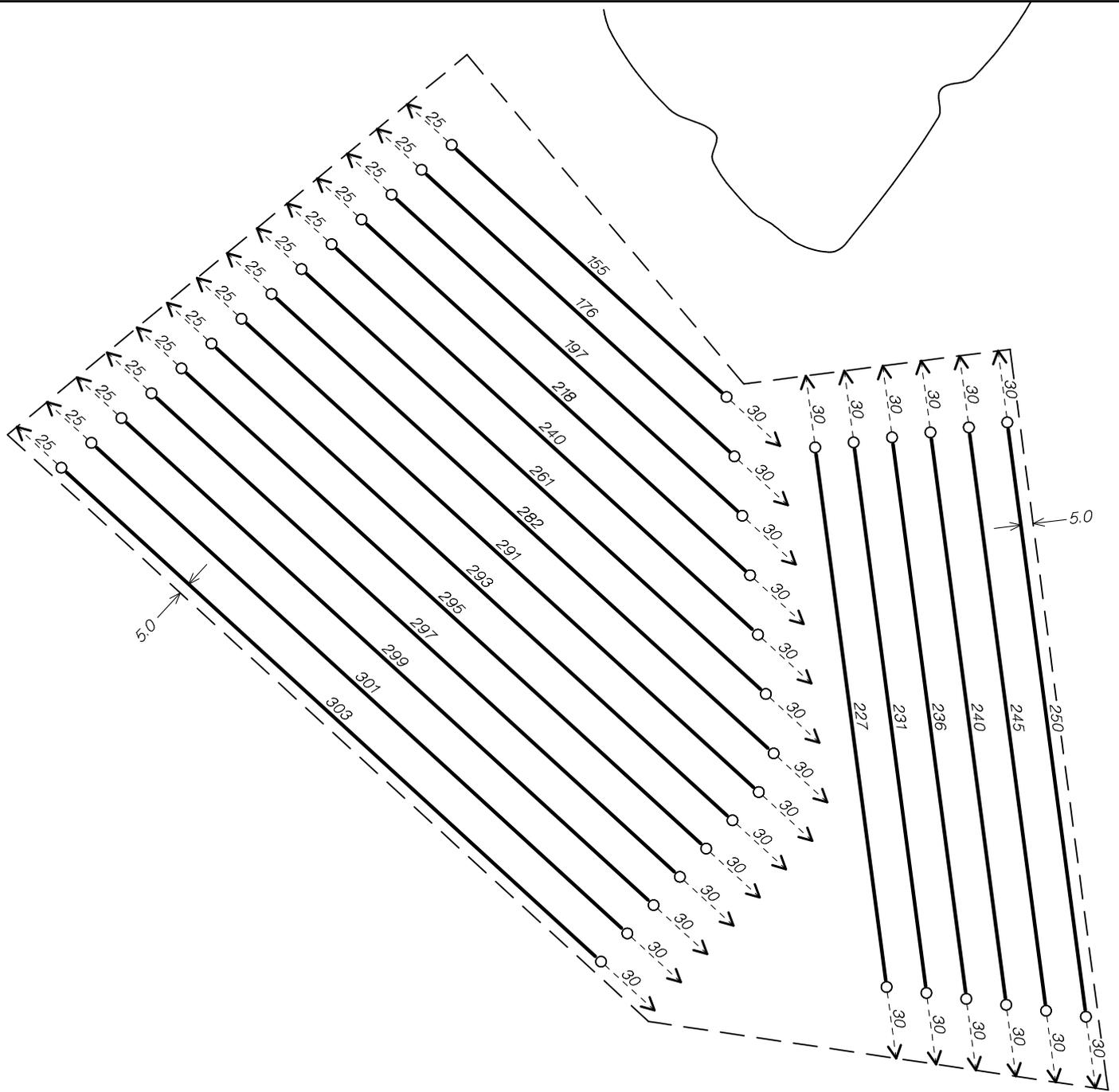
16 August 2017

Proposed Coastal Permit
Marine Farms 8493 & 8494 & Extn
Kenepuru Sound

SCALE 1:5,000



MF_2530



- REFERENCE**
- Orange Float
 - Anchors
 - Anchor Warp
 - Backbone

NOTE: Longline Spacing = 16m
 Total Longlines = 20
 Backbone Length = as shown
 Total Backbone Length = 5037m
 Warp Surface Loss = as shown



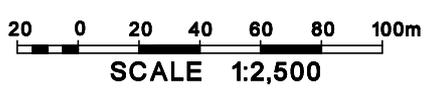
PALMS

16 August 2017

Layout Details

Proposed Coastal Permit

Marine Farms 8493 & 8494 & Extn



MF_2530

**ASSESSMENT OF ENVIRONMENTAL IMPACT
FOR A COASTAL PERMIT OCCUPANCY
AND DISTURBANCE OF THE SEABED**

**APPLICATION BY AROMA AQUACULTURE LIMITED,
FOR RENEWAL OF MARINE FARM SITES 8493 & 8494, AMALGAMATE
AND FOR EXTENSION OF THE SITES IN PIGYARD BAY, KENEPURU SOUND**

1.0 INTRODUCTION

Marine farm sites 8493 and 8494 were acquired in 2017 from R M Greer & J Gilbert (site 8393) and J P Wells (site 8494).

Site 8493 was granted in June 1980 as a 3.0 hectare site which was subsequently granted extension by 3.248 hectares in 2002. Site 8494 was renewed in 2005 and occupied an area of 0.75 hectares. On both sites the structures are on site and have not required revalidation under section 57 of the Aquaculture Reform Act 2004.

2.0 THE PROPOSAL

Since acquiring the sites Aroma Aquaculture Limited have reviewed the structure and management of the sites. As a result of this work it is proposed to renew marine farm sites 8493 & 8494 and to extend the sites so that the 10.49 hectare site is amalgamated into one site.

Restructuring of longlines will occur establishing 20 longlines of variable length with a total backbone length of 5037 metres.

Consent is also sought to continue to disturb the seabed with anchoring devices and to harvest marine farm produce including the taking and discharge of coastal seawater and discharge of biodegradable organic matter will occur at harvest. Term of consent sought is for twenty years to 2037. Existing consents will be relinquished on confirmation of consent being issued.

This is an application by existing permit holders for the site and activities permitted by existing consent and as such must be processed under Section 165ZH. Further matters outlined in Section 165AJI also come into play in that the applicants have:

- a) Complied with the relevant Regional Coastal Plan, and
- b) Complied with resource consent conditions for the current aquaculture activities undertaken by the applicants.

2.1. Existing Permitted Activities

Species to be farmed, anchoring devices in place, and harvesting of produce which includes taking and discharge of coastal seawater and discharge of biodegradable and organic waste, and activities that are designed to maintain the structure, lines and floats that are a comprehensive management package for the site.

The movement of vessels in a Permitted Activity S27 Marine and Coastal Area (Takatai Moana) Act 2011 and includes anything reasonably incidental to vessel movement (S27(2)).

3.0 STATUS OF THE APPLICATION

The site is located within the Coastal Marine Zone 1 (CMZ1) in the Marlborough Sounds Resource Management Plan (the Plan).

The amalgamated and extended site lies beyond 200m if Mean Low Water Springs at point 6 it is some 300m distant from the shore and at point 4 it is some 400m from shore. As a result the proposal must be considered as a Non-complying Activity in the Marlborough Sounds Resource Management Plan.

4.0 LOCATION

4.1. The Site

Pigyard and Fish Bays have three marine farms established. The proposal will see two farms amalgamated and extended to correspond to the Coastal Marine Zone area boundary and matches the extent of site 8495.

As indicated above the sites lies some 50m from mean low water springs while the outer boundaries range from 300-400m from mean low water springs. The site avoids any cobble or reef habitat inshore.

4.2. Site Dimensions

North sector boundaries are points 6, 1, 2, 3, 536.32m, east boundary is 310.96m and south west quadrant 551.97m.

Water depths are 1.42m, 2, 3, 4, 5, 6.

4.3. Site Layout

Existing site 8493 has 14 longlines with a backbone longline length of 2835m. The extension in this sector increased backbone length, maintains 14 longlines with a backbone length 3305m.

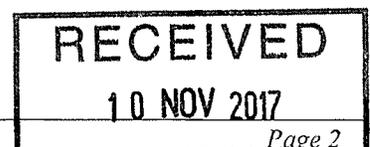
The extension to the parent site of 8494 had originally 4 longlines with backbone length of 360m. The extension here will have a total of 6 longlines with 1179m of backbone.

Longline lengths overall range from 303m to 155m and warps to anchors are 25m along the north boundary and 30m elsewhere. Longline spacing is proposed at 16m, with anchoring systems being screw anchors. A 25m gap will exist between the two differentlongline blocks. Total backbone length is 5037m.

5.0 THE PRESENT ENVIRONMENT

5.1. The Marine Environment

Three previous reports on the benthic environment were Richie 2000 which looked at the extension to marine farm licence 93 and subsequently a FRIA report was undertaken by Hopkins et al in 2005.



Davidson Environmental Limited reported on the site for renewal of the extension in 2008. The extension was dominated silt and clay with no habitats or substrata considered ecologically or scientifically important. This work confirmed the findings of both Richie and Hopkins.

Hopkins reported in the FRIA:

“The FRIA confirmed that no reef structures, boulders or shellfish beds were present. The benthos was soft mud being 97% of the sediment. No fish resources were compromised by the extension. The site was considered to be suitable for aquaculture.”

Davidson Environmental Limited undertook a further assessment in October 2017. In summary their findings were:

Sonar Imaging.

No rocky substrate were observed extending into consents or the extension areas.

Drop Camera Images.

Consents were characterised by soft silt and clay substrate. Mussel shell regarded at the low end of the scale compared to other farms in the Sounds.

Flora and fauna. Limited species and diversity and no species considered biologically significant were observed.

The Davidson Environmental Ltd report (2017) is attached and is an integral part of this application.

3.2 The Land Environment

The land adjacent is in three titles. To the west J J & M C Peters in the centre B J Bell and to the north east P D Watson.

Two residences are established overlooking the bay. Within their environment exotic pine forest plantings are present to the top of the northern ridge. Indigenous forest regeneration is occurring over substantial areas not planted and below the District Council road. Wilding pines are also widespread within the indigenous regeneration area.

Access via the District Council road traverses the slopes above the bay and access tracks to housing and the forest planted areas are visible in the landscape.

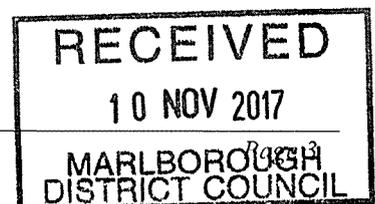
6.0 NAVIGATION MATTERS

6.1. The Shoreline

The distance from the shoreline holds with the conventions established in the Marlborough Sounds Resource Management Plan. That is, the inshore boundary of the proposed farm is beyond 50m of the mean low water mark. The outer boundary is approximately 200m from the shore and is therefore a Non-Complying Activity in the Marlborough Sounds Resource Management Plan.

6.2. Headlands

There are no headlands in the area.



6.3. Navigational Routes

The area lies inside of the navigational routes along the Kenepuru Sound. Vessels can navigate between the site and the shore, through the farm and on the outside of the site.

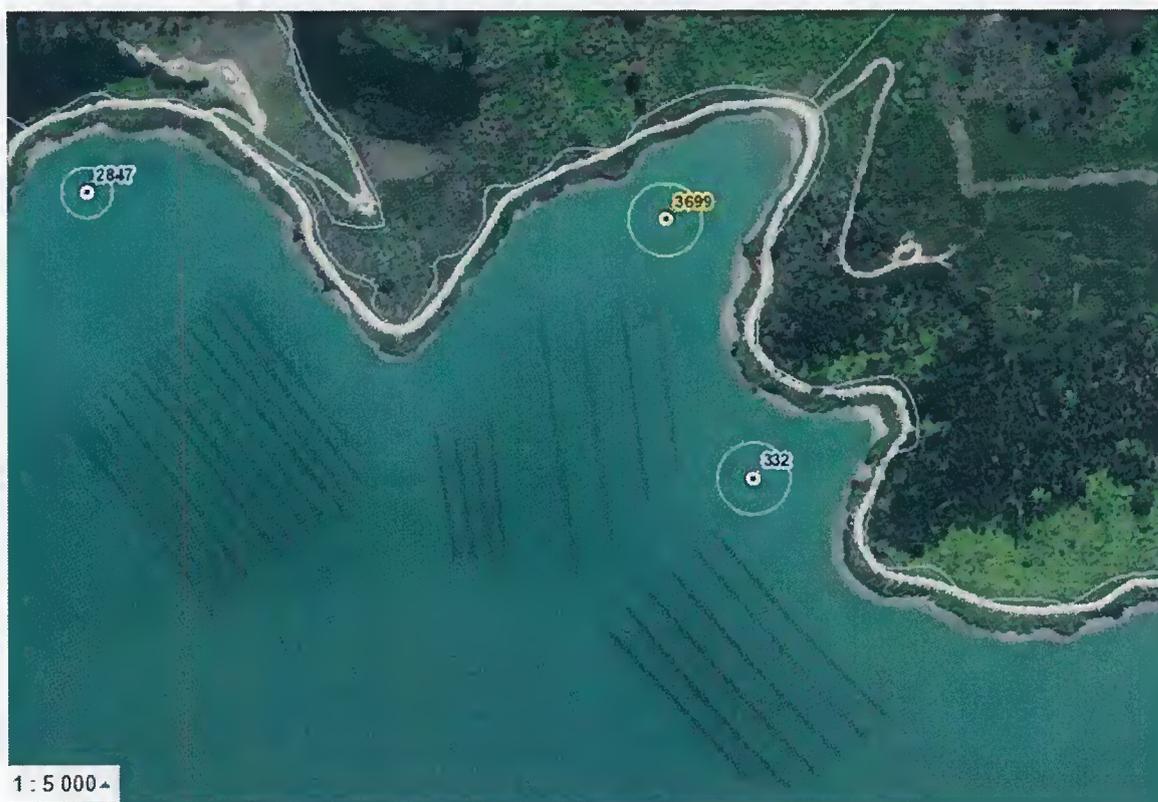
6.4. Anchorages or Mooring Areas

Three moorings are located in the Pigyard Bay and Fish Bay area. Mooring 2847 is owned by B J Bell under consent U050996 and lies inshore of the site in Pigyard Bay. Access to the site remains as is currently available.

Mooring 3699 is owned by P D Watson under consent U170818 and lies to the north east beyond the adjacent marine farm site 8495. Existing access is maintained by the extended site.

Mooring 332 owned by E A Freeman under consent U970409 and lies to the east of marine farm site 8495. The extension and renewal does not affect access to this site.

Figure 1: Location of moorings within Pigyard bay.

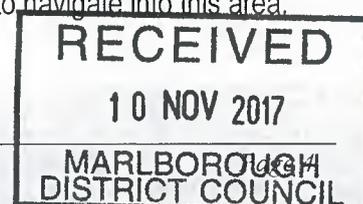


The New Zealand Cruising Guide (Central Area), produced by Murray and Von Kohorn, notes shelter from Northerly winds can be achieved in Fish Bay and as noted above 3 moorings a registered inshore of farms in Pigyard Bay.

Vessels from time to time do tie up to the marine farms and may travel inside the marine farms to obtain shelter from wind and waves. There is ample room for vessels to navigate into this area.

6.5. Water Ski Lanes

There are no water ski lanes in the vicinity.



6.6. Sub-Aqueous Cables

There are no sub-aqueous cables in the vicinity.

7.0 LANDSCAPE AND NATURAL CHARACTER**7.1. Land Zoned For Residential Use or Proximity to Residences**

The land surrounding Pigyard Bay is zoned Coastal Environment zone in the Marlborough Environment Plan (MEP) with three residences are located in this zone.

7.2. Scenic Value – Marlborough Sounds Resource Management Plan

The area has not been identified within the Marlborough Sounds Resource Management Plan as being of outstanding scenic landscape value. It lies within the “working” environment’ of the Kenepuru Sound where marine farming, traditional pastoral farming and forestry is practiced in the past.

The site lies adjacent to other marine farms. The effect on the scenic value will not change from present use of this part of the Kenepuru Sound.

7.3. Effects on Natural Character – Marlborough Environment Plan

The area is not considered to have a high coastal natural character rating. The 2014 Boffa Miskell study *Natural Character of the Marlborough Coast*, which is reflected in the natural character maps in the MEP, does not map the waters of the area as having outstanding, very high or high natural character. The land immediately adjoining the site is also not mapped as having natural character rating that should be protected. The area is mapped as Marlborough Sounds Coastal Landscape.

According to Rob Davidson, the marine farm will have limited effect on the marine environment at the site. This limited effect, combined with the productive nature of the bay, means that the farm will not have a significant effect on the natural character values at that location.

7.4. Effects on Landscape

The site is not within or adjacent to an Area of Outstanding Landscape Value (AOLV) in the Plan. The proposed Marlborough Environment Plan (MEP) does not identify the waters of Pigyard Bay as an outstanding natural feature and landscape (ONFL). The adjoining land is not mapped as an ONL. The area does form part of the high amenity value Marlborough Sounds Coastal Landscape, which includes all of the Marlborough Sounds.¹

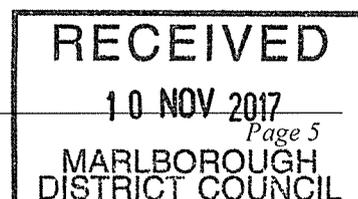
The waters of the area were not mapped as ONFL in the 2009 Boffa Miskell Marlborough Landscape Study.

The site lies within the “working” environment of Pigyard Bay within Kenepuru Sound where marine farming, pastoral farming and forestry have been practiced in the past, and continue to this day.

The site lies adjacent to another marine farm to the east of the site. The effect of the farm, even in its present form, is consistent with the scenic values of this part of the Pigyard Bay given its present use.

The site will not have an effect on the Marlborough Sounds Coastal Landscape, which is vast compared to this very small area in Pigyard Bay where it has been part of the landscape since 1980.

¹ Based on the 2015 Boffa Miskell Marlborough Landscape Study.



8.0 AMENITY VALUES

Visual and noise effects are considered to be minor. Vessels visit the area to service the farm on an irregular basis. Because this is a remote location vessels working this and the other farms work on a number of sites while they are present.

Given the presence of another marine farm, the buoys associated with renewal of the existing site would have only a minor additional impact on visual amenity.

9.0 ECOLOGICAL VALUE

There is no ecological value identified in the Marlborough Sounds Resource Management Plan for the immediate area. Ecological values that have been identified are described in the Davidson Environmental Ltd Report, particularly for those areas inshore of the proposal. These areas will not be adversely affected by this proposal.

10.0 RECREATIONAL VALUE

In terms of recreational use, there is road access to the area. All access is normally by boat. Boats transiting into the Bay will pass this site. The presence of existing farms in this locality has not impaired use of the area as access to the coast and beaches is maintained as it has from being originally installed.

Recreational fishing does occur along the shore of this zone of Kenepuru Sound. From time to time fishermen use the inshore zone, and utilise the marine farm longlines and anchor blocks for recreational fishing. Over time fish will be attracted to the site, which will then become a focus for recreational fishing.

The visual impact of the marine farm will not cause any significant alteration to the physical environment in what is essentially already a commercial marine farming area. Marine farming is consistent with the productive character of this part of the Bay.

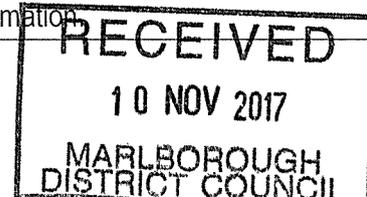
10.1. Recreational Fishing

It is the applicant's view that the marine farm at the site enhances opportunities for recreational fishing, as marine farms generally tend to create an ecosystem which is conducive to the presence of both reef fish, and other fish species such as cod and snapper. Access to the coast for recreationalists is maintained.

Recreational fishing does take place along the coastline utilising the small reefs and rubble shore which is inhabited by fish targeted by recreational fishers. The marine farm itself is located offshore and will encourage the presence of fish species over time. In the long run, as with other marine farms in the bay, fish are drawn to marine farm sites. Recreational fishing is an activity encouraged by the applicant.

11.0 HISTORICAL OR CULTURAL VALUES

The New Zealand Historical Places Trust Inventory has been consulted to identify any sites of significance in this location. None appear in published information.



From the applicant's knowledge no sites of historical or traditional value are present in the area. Given that site has had previous consultation it is not expected that values important to iwi would be affected. Consultation with Iwi will be undertaken to confirm this.

12.0 COMMERCIAL FISHING

Commercial fishing may occur in parts of Kenepuru Sound. It is unlikely in Pigyard Bay, due to the marine farms in the area or moorings. This area is not subject to, or affected by that activity.

13.0 EFFECTS ON WATER QUALITY AND ECOLOGY

The water quality of the area is generally high. The site relies on excellent water quality to enable the process of marine farming to flourish. It is a large area with good capacity for mixing of water with tidal current, wind and wave action. It is noted the area is affected by flood waters from the Pelorus River often causing turbid water conditions in inner Pelorus Sound and Kenepuru Sound.

Consent is required for discharge of organic waste matter, which is discharged during the harvesting process and for the take and use of coastal water. No significant historical adverse effects have been recorded or are anticipated, and any visual evidence of harvesting quickly dissipates in the coastal environment.

14.0 ALIENATION OF PUBLIC SPACE

The general area of this zone of the Sounds has been utilised by marine farmers for many years. Recreation and commercial boat owners are aware of marine farms in this area and recreational fishermen have the opportunity to use the sites and transit through them. Given the 16.0 m spacing existing between longlines for this farm, there are opportunities for vessels wanting to transit through the site.

From time to time, vessels utilise the longlines for mooring and over-nighting. This process as far as the applicant is concerned, will continue.

15.0 ON SHORE FACILITIES

The applicant does not require onshore marine farm facilities. The work is undertaken by existing marine farming contractors.

As part of this application, the applicant seeks to continue harvesting mature mussel crops.

The right to navigate to and from the farm, and to anchor, moor and load crop is preserved by s27 of the Marine and Coastal Area (Takutai Moana) Act 2011. However, consent is required for the amount of organic waste matter which is discharged during the harvesting process and for the take and use of coastal water. No significant historical adverse effects have been recorded or are anticipated and any visual evidence of harvesting quickly dissipates in the coastal environment.

Vessels will be required to service the farm on an irregular basis.

16.0 VALUE OF INVESTMENT

As part of this application to renew and extend sites 8493 & 8494, the applicant is seeking to re-consent the site as a single unit and surrender the existing consents when the application is

granted for a period of 20 years. As a result, this is an application to which s165AH(1)(c) applies and the Council must, when considering the application, have regard to the value of the investment of the existing consent holder under s104(2A).

The site has been held by the applicants since 2017. Equipment costs were \$252,882.00 and installation costs were \$93,000.00 and growing rope \$63,000.00.

Harvest and growth rates reflect climatic conditions and spat source. Kaitaia spat has been ready for harvest after 12 months with other spat sources including Golden Bay and locally caught taking 16-18 month cycle.

Approximately half the site will be harvested in any year with maintenance costs in the order of \$40,000.00 per year.

Harvest per line is variable and depending on the longline length will be in the order of 35-50 tonne, 400 tonne per year.

Returns to the grower can vary however the company advises the value to harvest their product is \$1300/tonne which is consistent with other industry sources. Value is based on 400 tonne year production is \$520,000.00.

The company values this site due to the high productivity experienced here and short term turn around time.

The product is transported to Havelock and processed in Aroma New Zealand's factory there and in Christchurch for human and veterinary production which is all exported.

From an employment perspective the company undertakes its a water work with 8 staff with 30 employees in factories in Havelock and Christchurch.

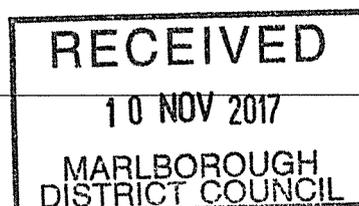
17.0 PART II RESOURCE MANAGEMENT ACT ISSUES

17.1. Section 5

In terms of the enabling provisions in Section 5 of the Resource Management Act the marine farm industry has been, and will continue, to be a source of substantial revenue production and in turn employment in the Sounds and in the Nelson/Marlborough regions.

In addition, export income for the nation is generated. Applications such as this enable sustainable use of the marine resources in a way that enables people and communities to provide for their economic and social wellbeing.

The site is in the CMZ2, an area zoned as appropriate for marine farms in the Plan however part of the site was approved in 1980. It is in the "working" environment of the Sounds. The site position and distances from other facilities are not detrimental to other uses of the area. Section 5 of the RMA is given effect through the New Zealand Coast Policy Statement 2010 ("NZCPS"), the Marlborough Regional Policy Statement and the Plan. The MEP is still in the notification phase. The application is assessed against the relevant provisions of these documents below, and in Appendix A, B and C.



17.2. Section 6

Matters of national importance have been assessed under the requirements of the Plan.

The proposal recognises the:

- (a) *The preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development:*

Section 6(a) is given effect through Policy 13 of NZCPS, which is considered later in this application. The adjacent vegetation is adjacent indigenous forest regeneration and exotic forest. The existing farms do not effect that. The site has been positioned to allow access around the coast without impediment, and access between the shore and structures has been maintained. Section 6(a) is given effect through Policy 15 of New Zealand Coastal Policy Statement which is considered later in this application.

- (b) *The protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development:*

The site does not lie in an area identified as "outstanding landscape". This site is adjacent to other marine farms. The adjacent land is indigenous and exotic forest. The proposal will diversify and enhance the production opportunities for the applicant and assist in enhancing employment and services to the area. See section 7.2.

- (c) *The protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna:*

The vegetation is both indigenous and exotic forest adjacent, with indigenous shrub lands along the coast.

- (d) *The maintenance and enhancement of public access to an along the coastal marine area, lakes, and rivers:*

Public access is maintained with good separation from the coast and main navigational routes.

- (e) *The relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga.*

The site is not known to be of importance to Maori. The applicants are unaware of any historical site on land nearby. The site has been positioned to avoid habitat that may be important to Maori. This will be confirmed with consultation with Iwi.

17.3. Section 7

In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall have particular regard to –

- (a) *Kaitiakitanga:*

A number of iwi are identified as having interests in the Pelorus Sound area. The proposal has been developed to avoid offending the guardianship and protection of resources valued by Iwi. It is an existing long established site. The notion of care and

protection of the environment and resources is also an important concept in management of resources, which the applicant also holds as important in its day to day management of water space.

- (b) *The efficient use and development of natural and physical resources:*
The proposal is confined and concentrated in a locality out of the way of normal public access and resource use. Being confined and sited together with another marine farm brings efficiencies in applying resources to manage the growing of mussels.
- (c) *The maintenance and enhancement of amenity values:*
Amenity values will have no change with the renewal; however, the farm is an existing one near to another farm.
- (d) *Intrinsic values of ecosystems:*
The values of the ecosystems have been identified in the report prepared, to detail the benthic environment. Importantly no significant resources have been identified on the site. The structures are situated over a mud benthos that is widespread in the Marlborough Sounds and is identified as the environment most suited to have aquaculture over it. Species are low in number and diversity.
- (e) *Recognition and protection of the heritage values of the sites, buildings, place, or areas:*
There are no heritage sites, buildings or places in the near vicinity.
- (f) *Maintenance and enhancement of quality of the environment:*
The quality of the environment will not be endangered by the proposal to grow mussels. The process needs high water quality and, as filter feeders, mussels will enhance water quality by the filtration process during feeding.
- (g) Any finite characteristics of natural and physical resources:
The proposal is to occupy a small part of the bay. Mussels are naturally occurring in the water column and filter feed off naturally occurring phytoplankton and zooplankton.
- (h) *The protection of the habitat of trout and salmon.*
Section (h) is not relevant to this application.

17.4. Treaty of Waitangi

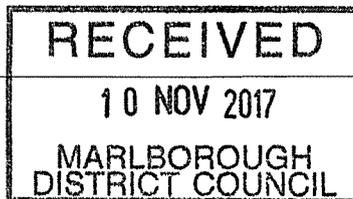
Matters of potential concern in relation to the Treaty of Waitangi have also been considered earlier in the original proposals to the site. No matters of concern were raised at that time. See also section 23.1 below.

18.0 NEW ZEALAND COASTAL POLICY STATEMENT 2010 (NZCPS)

The NZCPS 2010 is of general relevance to this application and all policies have been considered in the development of the proposal. The NZCPS policies of immediate relevance to the applications are policies 2, 6, 8, 11, 13, 15, 18, 22 and 23.

23.1 Policy 2

Policy 2 sets out a number of matters which are relevant to the taking into account of the principles of the Treaty of Waitangi and kaitiakitanga, in relation to the coastal environment.



The applicant recognizes that Ngāti Apa ki te Rā Tō, Ngāti Kuia, Rangitāne o Wairau, Ngāti Kōata, Ngāti Rārua, Ngāti Tama ki Te Tau Ihu, Te Ātiawa o Te Waka-a-Māui and Ngati Toa Rangatira have statutory acknowledgements in the area of the application site. Those acknowledgements have been considered during the preparation of this application, as outlined above.

The applicant has also reviewed the Iwi management plans of Ngāti Kōata, Te Ātiawa o Te Waka-a-Māui and Ngati Kuia. No areas of conflict have been identified.

There are no taiāpure or mahinga mātaihai in the area of the application. There are also no established areas of protected customary rights or customary marine title within the meaning of the Marine and Coastal Area (Takutai Moana) Act 2011.

The applicant will discuss the proposal further with relevant Iwi representatives.

23.2 Policy 6

Policy 6 of the NZCPS is in two parts, the first dealing with activities in the coastal environment more broadly, and the second with those in the coastal marine area more specifically.

The farm is consistent with the character of the existing built environment in Pigyard Bay. No areas of indigenous biodiversity or historic heritage value have been identified in relation to the site, so the farm complies with subpart 1(j).

Subpart 2 of the Policy 6 is particularly relevant. Mussel farming clearly has a functional need to be located in the coastal marine area. It directly contributes to the social and economic wellbeing of people and communities, in accordance with subpart 2(a). This is discussed in relation to Policy 8 below.

23.3 Policy 8

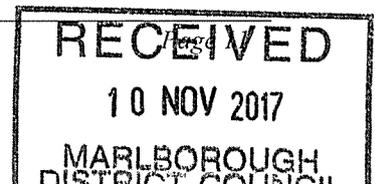
Policy 8 of the NZCPS provides for the recognition of the significant existing and potential contribution of aquaculture to the social, economic and cultural wellbeing of people and communities by:

- a) *Including in regional policy statements and regional coastal plans provision for aquaculture activities in appropriate places in the coastal environment, recognizing that relevant consideration may include:
 - i). *The need for high quality water 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 an 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.*

The application will enable production from the site, contributing to the social and economic benefits of aquaculture to the community. No changes to the impact on water quality are anticipated. This application satisfies the requirement of Policy 8.

23.4 Policy 11

Policy 11 relates to protecting the indigenous biological diversity of the coastal environment.



The farm is located over mud habitat and avoids any reef areas or any other areas of significant biodiversity. Marine mammals are unaffected by the farm. There will be no adverse effects on indigenous biodiversity.

23.5 Policy 13

Policy 13 provides for the avoidance of significant adverse effects on areas of the coastal environment with outstanding natural character and the avoidance, remediation and mitigation of other adverse effects on natural character.

See above at section 7.3.

The site lies within a bay and coastline with substantial human modification and patterns that dominates the visual environment.

23.6 Policy 15

Policy 15(a) provides for the avoidance of adverse effects of activities on outstanding natural features and outstanding landscapes in the coastal environment. Policy 15(b) provides for the avoidance of significant adverse effects and the avoidance, remediation, and mitigation of other adverse effects of activities on other natural features and natural landscapes in the coastal environment.

This application is not within an area of outstanding landscape value under the Marlborough Sounds Resource Management Plan or proposed MEP There will be no additional impact on the landscape compared with that already occurring under the current consent. The effects of the application on the landscape will be minor and the effects are not likely to impact on the values which contribute to the landscape.

23.7 Policy 18

Policy 18 recognises the need for public open space within and adjacent to the coastal marine area, for public use and appreciation including activities and passive recreation.

There is no access by road. Most of the access to this area is by boat. Nevertheless, the visual impact of the marine farm will not change significantly. The area has a low viewing audience. Access to the coast for recreationalists is maintained.

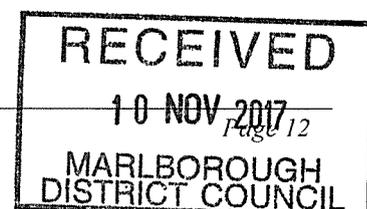
There is three registered moorings in Pigyard Bay. No formal water ski lanes are present. Opportunities for recreational fishing may be enhanced by the presence of the marine farm.

23.8 Policy 22

Policy 22 requires an assessment of sedimentation levels, and that use will not result in a significant increase in those levels. Davidson's biological report, stated that while shell and fine sediment would be deposited under and in proximity to droppers, the farm structures are located over habitat considered suitable for this type of activity. No monitoring appeared to be necessary.

23.9 Policy 23

Subpart 1 of Policy 23, which relates to managing discharges to water in the coastal environment, is relevant to this application. Silts and organic matter released at harvest are readily assimilated into the water column and seabed. The effects of harvesting mussels are only transitory, and quickly become indistinguishable from background sedimentation.



19.0 REGIONAL POLICY STATEMENT/MARLBOROUGH SOUNDS RESOURCE MANAGEMENT PLAN

Certain provisions of the Marlborough Regional Policy Statement have relevance to this application and are considered in Appendix A.

The Plan contains a number of provisions that are relevant to this application. An assessment of the application against the requirements of that plan is contained in Appendix B.

Conclusion

Taken overall, the application is consistent with the relevant objectives and policies of the Regional Policy Statement and Marlborough Sounds Resource Management Plan.

20.0 PROPOSED MARLBOROUGH ENVIRONMENT PLAN

Rules applying to marine farming have been specifically excluded from the proposed MEP at this stage, hence consideration of the proposal under the operative Plan. However, some recognition does need to be given to the relevant policies in the MEP. An analysis table assessing the proposal against the relevant provisions is included at Appendix C.

The site is located in the Overlay Marlborough Sounds Coastal Landscape. The terrestrial landscape has been classified and graded as not an outstanding natural feature or landscape.

MEP objectives and policies relevant to the proposal include:

- Chapter 4 – Natural & Physical Resources
- Chapter 5 – Allocation of Public Resources
- Chapter 6 – Natural Character
- Chapter 9 – Public Access and Open Space
- Chapter 15 – Resource Quality

Note that the provisions of chapter 13, Use of the Coastal Environment, specifically do not apply to marine farms.

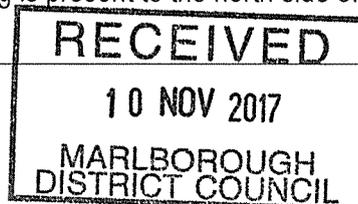
All are considered to be relevant to such applications as this and have been generally outlined in this AEE. In my view the proposal provides for the needs of primary production and tourism.

Infrastructure is protected. The nature and character of the Sounds is protected. Access to coastal water is maintained and exclusive occupation of water space is minimized allowing access between lines and the shore.

Adverse effects in areas of outstanding natural character, outstanding natural landscapes, and outstanding natural features have been avoided, as has any effect on ecosystems and biodiversity.

Heritage values are recognised, and are unaffected, including Maori Culture and traditions. Structures and activities are "clustered" in Pigyard Bay and do not diminish amenity values.

The character of Pigyard Bay is one of forestry, recreational boating as shown by the number of moorings and marine farming. Residential housing is present to the north side of the Bay.



21.0 CONSULTATION

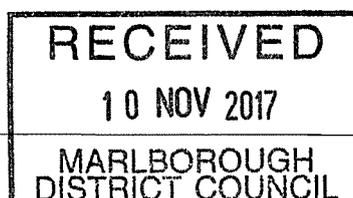
An initial letter has been sent to all Iwi listed below identifying the site.

Name	Address	Phone
Ngati Koata Trust	PO Box 1659, Nelson 7040	(03) 548 1639
Te Runanga a Rangitane o Wairau	PO Box 883, Blenheim 7240	(03) 578 6180
Te Runanga O Ngati Kuia	PO Box 1046, Blenheim 7240	(03) 579 4328
Ngāti Apa ki te Rā Tō	PO Box 708, Blenheim 7240	(03) 578 9695
Te Atiawa Manawhenua Ki Te Tau Ihu Trust	PO Box 340, Picton	(03) 573 5170
Ngati Toarangatira Manawhenua Ki Te Tau Ihu Trust	PO Box 5061, Blenheim 7240	(03) 577 8801
Ngati Rarua Trust	PO Box 1026, Blenheim 7240	(03) 577 8468

22.0 CONCLUSION

The applicant considers that the use of this area for aquaculture is appropriate, allowing the farming of mussels. The activity enables people and communities to provide for the social, economic and cultural wellbeing, while ensuring the principles of sustainable management are met.

RD Sutherland
Property and Land Management Services Limited,
On behalf of the Applicants



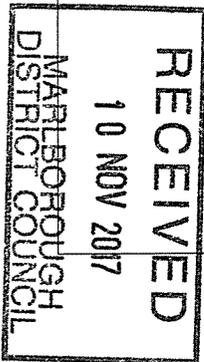
APPENDIX A: MARLBOROUGH REGIONAL POLICY STATEMENT – POLICY ANALYSIS

Objective	Policy	Assessment
<p>5.3.2: That water quality in the coastal marine area be maintained at a level which provides for the sustainable management of the marine ecosystem.</p>	<p>5.3.5: Avoid, remedy or mitigate the reduction of coastal water quality by contaminants arising from activities occurring within the coastal marine area.</p>	<p>No artificial feed or attractants are added. No chemicals, antibiotics or other therapeutants added. Any discharges of organic matter associated with harvesting will be transitory.</p>
<p>5.3.10: The natural species diversity and integrity of marine habitats be maintained or enhanced.</p>	<p>5.3.11: Avoid, remedy or mitigate habitat disruption arising from activities occurring within the coastal marine area.</p>	<p>Any disruption associated with the existing mooring of the farm is minor in scale and transitory. The seabed is already in a modified state due to terrestrial run off.</p>
<p>7.1.9: To enable present and future generations to provide for their wellbeing by allowing use, development and protection of resources provided any adverse effects of activities are avoided, remedied or mitigated.</p>	<p>7.1.10: To enable appropriate type, scale and location of activities by:</p> <ul style="list-style-type: none"> • Clustering activities with similar effects; • Ensuring activities reflect the character and facilities available in the communities in which they are located; • Promoting the creation and maintenance of buffer zones (such as stream banks or 'greenbelts'); • Locating activities with noxious elements in areas where adverse environmental effects can be avoided, remedied or mitigated. 	<p>The marine farm is consistent with the current Policy and the designated consented site is within a location as a site well established for marine farming. Marine farms are clustered in the area, along with three moorings.</p>
	<p>7.1.12: To ensure that no undue barriers are placed on the establishment of new activities (including new primary production species) provided the life supporting capacity of air, water, soil and ecosystems is safeguarded and any adverse environment effects are avoided, remedied or mitigated.</p>	<p>This area has a primary production character, and is well suited to marine farming. This policy supports the proposed renewal. The life supporting capacity of the area will be safeguarded.</p>

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APPENDIX A: MARLBOROUGH REGIONAL POLICY STATEMENT – POLICY ANALYSIS

Objective	Policy	Assessment
7.2.7: The subdivision use and development, of the coastal environment, in a sustainable way.	7.2.8: Ensure the appropriate subdivision, use and development of the coastal environment.	The marine farm is within a bay well established for marine farming. The marine farms activity is biologically sustainable.
	7.2.10(a) – (d)	The marine farm is located within the consented area which is approved for marine farming.
7.3.2: Buildings, sites, trees and locations identified as having significant cultural or heritage value are retained for the continued benefit of the community.	7.3.3: Protect identified significant cultural and heritage features.	No sites of cultural or heritage significance have been identified on the area of the application site.
8.1.2: The maintenance and enhancement of the visual character of indigenous, working and built landscapes.	8.1.3: Avoid, remedy or mitigate the damage of identified outstanding landscape features arising from the effects of excavation, disturbance of vegetation, or erection of structures.	The site is within an area of outstanding natural landscape but will have no additional impact on landscape values. The farm is well managed and will comply with the Aquaculture New Zealand A+ Sustainable Management Framework for Mussels.
	8.1.5: Promote enhancement of the nature and character of indigenous, working and built landscapes by all activities which use land and water.	The marine farm will have no additional impact on landscape values.
	8.1.6: Preserve the natural character of the coastal environment.	The site will have only minor effect on the already modified natural character of the coastal environment.



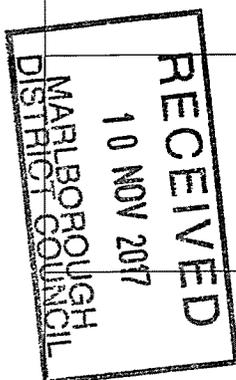
APPENDIX B: MARLBOROUGH SOUNDS RESOURCE MANAGEMENT PLAN – POLICY ANALYSIS

Objective	Policy	Assessment
<p>Ch 2, 2.2, Obj 1: The preservation of the natural character of the coastal environment of the coastal environment, wetlands, lakes, and rivers and their margins and the protection of them from inappropriate subdivision, use and development.</p>	<p>Policy 1.1: Avoid the adverse effects of subdivision, use of development within those areas of the coastal environment and freshwater bodies which are predominantly in their natural state and have natural character which has not been compromised.</p>	<p>This application is set in an area which is dominated by other human modifications, including forestry, roads, tracks, dwellings to the north of the bay and marine farms.</p>
	<p>Policy 1.2: Appropriate use and development will be encouraged in areas where the natural character of the coastal environment has already been compromised, and where the adverse effects of such activities can be avoided, remedied or mitigated.</p>	<p>As above.</p>
	<p>Policy 1.3: To consider the effects on those qualities, elements and features which contribute to natural character, including:</p> <ul style="list-style-type: none"> a) Coastal and freshwater landforms; b) Indigenous flora and fauna, and their habitats; c) Water and water quality; d) Scenic or landscape values; e) Cultural heritage values, including historic places, sites of early settlement and sites of significance to Iwi; and f) Habitat of trout. 	<p>These matters have been considered in the assessment of environmental effects in the Davidson Environment Report.</p>

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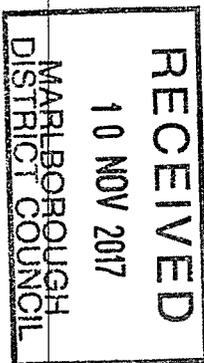
APPENDIX B: MARLBOROUGH SOUNDS RESOURCE MANAGEMENT PLAN – POLICY ANALYSIS

	<p>Policy 1.4: In assessing the actual or potential effects of subdivision, use or development on natural character of the coastal and freshwater environments, particular regard shall be had to the policies in Chapters, 3, 4, 5, 6, 12, 13 and Sections 9.2.1. 9.3.2 and 9.4.1 in recognition of the components of natural character.</p>	<p>The application will not have any additional impact on the components of these policies which impact natural character values.</p>
	<p>Policy 1.6: In assessing the appropriateness of subdivision, use or development in coastal and freshwater environments regard shall be had to the ability to restore or rehabilitate natural character in the area subject to the proposal.</p>	<p>Any residual impact on natural character will naturally rehabilitate on removal of the farm.</p>
	<p>Policy 1.7: To adopt a precautionary approach in making decisions where the effects on the natural character of the coastal environment, wetlands, makes and rivers (and their margins) are unknown.</p>	<p>The effects of this application are not unknown and are discussed elsewhere in the assessment of environmental effects. A precautionary approach is not justified.</p>
<p>Ch 4, 4.3, Obj 1: The protection of significant indigenous flora and fauna (including trout and salmon) and their habitats from the adverse effects of use and development.</p>	<p>Policy 1.2: Avoid, remedy or mitigate the adverse effects of land and water use on areas of significant ecological value.</p>	<p>The farm is not sited over an area of significant ecological value.</p>
<p>Ch 5, 5.3. Obj 1: Management of the visual quality of the Sounds and protection of outstanding natural features and landscapes from inappropriate subdivision, use and development.</p>	<p>Policy 1.1: Avoid, remedy and mitigate adverse effects of subdivision, use and development, including activities and structures, on the visual quality of outstanding natural features and landscapes, identified according to criteria in Appendix One.</p>	<p>The application site is not within an area of outstanding landscape value identified in the Plan. The effects of the application on the landscape will be similar to other marine farm sites. The effects are not likely to impact on the values which contribute to the landscape.</p>



APPENDIX B: MARLBOROUGH SOUNDS RESOURCE MANAGEMENT PLAN – POLICY ANALYSIS

<p>Ch 6, 6.1.2, Obj 1: Recognition and provision for the relationship of Marlborough’s Maori to their culture and traditions with their ancestral lands, waters, sites, waahi tapu and other taonga.</p>	<p>Policies 1.1 – 1.5:</p>	<p>In preparing this application, the applicants have had regard to the Statutory Acknowledgements and have reviewed the statements of association for each Iwi. No areas of conflict have been identified by the applicants. Consultation will be undertaken with iwi including sending an initial letter regarding the proposal. The applicants understand there are no known wahi tapu, taiapure, mataitai or other areas of significance to Maori in the vicinity of the application.</p>
<p>Ch 8, 8.3, Obj 1: That public access <i>to and along</i> the coastal marine area, lakes and rivers be maintained and enhanced.</p>	<p>Policy 1.2: Adverse effects on public access caused by the erection of structures, marine farms, works or activities in or along the coastal marine area should as far as practicable be avoided. Where complete avoidance is not practicable, the adverse effects should be mitigated and provision made for remedying those effects, to the extent practicable.</p>	<p>There are no additional adverse effects on public access caused by the existing marine farm. Access inshore and between lines is maintained.</p>
	<p>Policy 1.3: To prevent the erection of structures and marine farms that restrict public access in the coastal marine area where it is subjected to high public usage.</p>	<p>There are no additional adverse effects on public access caused by the marine farm.</p>
	<p>Policy 1.8: Public access to and along the coastal marine area should be maintained and enhanced except where it is necessary to [circumstances do not apply].</p>	<p>There are no additional adverse effects on public access caused by the marine farm.</p>



APPENDIX B: MARLBOROUGH SOUNDS RESOURCE MANAGEMENT PLAN – POLICY ANALYSIS

<p>Ch 9, 9.2.1, Obj 1: The accommodation of appropriate activities in the coastal marine area whilst avoiding, remedying or mitigating the adverse effects of those activities.</p>	<p>Policy 1.1: Avoid, remedy and mitigate adverse effects of use and development of resources in the coastal marine area on any of the following:</p> <ul style="list-style-type: none"> a) Conservation and ecological values; b) Cultural and Iwi values; c) Heritage and amenity values; d) Landscape, seascape and aesthetic values; e) Marine habitats and sustainability; f) Natural character of the coastal environment; g) Navigational safety; h) Other activities, including those on land; i) Public access to and along the coast; j) Public health and safety; k) Recreation values; and l) Water quality. 	<p>The way in which adverse effects on the stated values will be avoided, remedied and mitigated is addressed elsewhere in the assessment of environmental effects. Overall, the proposal is consistent with this policy.</p>
	<p>Policy 1.2: Adverse effects of subdivision, use or development in the coastal environment should as far as practicable be avoided. Where complete avoidance is not practicable, the adverse effects should be mitigated and provision made for remedying those effects to the extent practicable.</p>	<p>Adverse effects from the proposal will be minor and will be mitigated to the extent practicable.</p>
	<p>Policy 1.3: Exclusive occupation of the coastal marine area or occupation which effectively excludes the public will only be allowed to the extent reasonably necessary to carry out the activity.</p>	<p>Consistent with other marine farms in the Marlborough Sounds, exclusive occupation of the consent area is not sought, other than for the area physically occupied by the lines and anchoring devices.</p>

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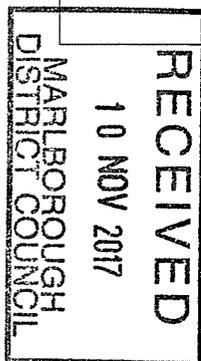
APPENDIX B: MARLBOROUGH SOUNDS RESOURCE MANAGEMENT PLAN – POLICY ANALYSIS

	<p>Policy 1.6: Ensure recreational interests retain a dominant status over commercial activities that require occupation of coastal space and which preclude recreational use in Queen Charlotte Sound, including Tory Channel, but excluding Port and Marina Zones.</p>	Not applicable.
	<p>Policy 1.7: Avoid adverse effects from the occupation of coastal space in or around recognized casual mooring areas.</p>	Exclusive occupation of the consent area is not sought. The farm will not impede access to the nearby mooring or jetties. There is no change to the existing environment.
	<p>Policy 1.12: To enable a range of activities in appropriate places in the waters of the Sounds including marine farming, tourism and recreation.</p>	Policy 1.12 enables marine farming in appropriate places. Sites 8493 & 8494 are consented for marine farming and this area has been consented for marine farming since 1980. Overall, the application is consistent with this policy.
	<p>Policy 1.13: Enable the renewal as controlled activities of marine farms authorized by applications made prior to 1 August 1996 as controlled activities, apart from exceptions in Appendix D2 in the Plan.</p>	This existing farm is a non-complying activity enabled by this policy.
<p>Ch 9, 9.3.2, Obj 1: Management of the effects of activities so that water quality in the coastal marine area is at a level which enables the gathering or cultivating of shellfish for human consumption (Class SG).</p>	<p>Policy 1.1 to 1.11:</p>	This application is not anticipated to have any impact on shellfish quality.

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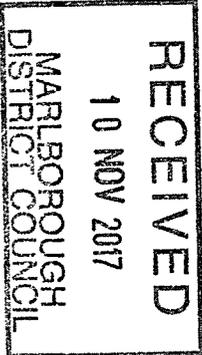
APPENDIX B: MARLBOROUGH SOUNDS RESOURCE MANAGEMENT PLAN – POLICY ANALYSIS

<p>Ch 9, 9.4.1, Obj 1:</p>	<p>Policy 1.1: Avoid, remedy or mitigate the adverse effects of activities that disturb or alter the foreshore and/or seabed on any of the following : [criteria specified in Plan].</p>	<p>There will be no additional disturbances of the seabed. The owners of the farm in Pigyard Bay have regular beach clean ups in which the greater percentage of rubbish is from recreational users of the Sounds.</p>
<p>Ch 9, 9.4A.1, Obj 1:</p>	<p>N/A</p>	<p>These policies are no longer relevant due to abolition of AMAs through legislation.</p>
<p>Ch 19, 19.3, Obj 1: Safe, efficient and sustainably managed water transport systems in a manner that avoids, remedies and mitigates adverse effects.</p>	<p>Policy 1.1: Avoid, remedy or mitigate the adverse effects of activities and structures on navigation and safety, within the coastal environment.</p>	<p>There have been no reported navigational incidences in the bay. There will be no changes to the existing consent conditions regarding the navigational aids placed on the farm. The navigational lighting requirements will provide better navigational aids within the Bay.</p>
<p>Ch 22, 22.3, Obj 1: To avoid, remedy and mitigate the adverse effects of unreasonable noise, while allowing for reasonable noise associated with port activities.</p>	<p>Policy 1.1: Avoid, remedy or mitigate community disturbance, disruption or interference by noise within coastal, rural and urban areas.</p>	<p>The farm is positioned approximately 200 metres away from the closest residence in the area. The contractors servicing vessel is estimated to spend approximately 65-90 hours maintaining and harvesting the lines per year. The applicants comply with the 'Code of Practice' to avoid, remedy or mitigate noise from marine farming activities in the Marlborough Sounds on other users and residents.</p>



RESOURCE CONSENT APPLICATION BY AROMA AQUACULTURE LIMITED

APPENDIX C Analysis of Consistency with the Proposed Marlborough Environment Plan (Volume 1)

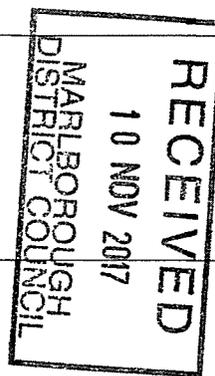
MEP Provision	Evaluation
<p>Objective 3.2 – Natural and physical resources are managed in a manner that takes into account the spiritual and cultural values of Marlborough’s tangata whenua iwi and respects and accommodates tikanga Māori.</p> <p>[RPS]</p>	<p>No particular customary activities have been identified for the site. However, recognition is given to Māori culture and traditions and confirmation from Iwi will be sought to ensure the proposal does not affect these values.</p>
<p>Objective 3.3 – The cultural and traditional relationship of Marlborough’s tangata whenua iwi with their ancestral lands, water, air, coastal environment, waahi tapu and other sites and taonga are recognised and provided for.</p> <p>[RPS]</p> 	<p>The applicant has had regard to Kaitiakitanga and will consult with Iwi, recognising their relationship with the waters of Te Tau Ihu. Consultation on the matter will be with Ngāti Apa ki te Rā Tō, Ngāti Kuia, Rangitāne o Wairau, Ngāti Kōata, Ngāti Rārua, Ngāti Tama ki Te Tau Ihu, Te Ātiawa o Te Waka-a-Māui and Ngati Toa Rangatira, recognising rohe under Statutory Acknowledgment protocols.</p> <p>The applicant has also reviewed the Iwi management plans of Ngāti Kōata and Te Ātiawa o Te Waka-a-Māui and Ngati Kuia. No areas of conflict have been identified.</p> <p>The applicant is aware of the importance of the waters of the Marlborough Sounds to Iwi.</p>
<p>Objective 3.5 – Resource management decision making processes that give particular consideration to the cultural and spiritual values of Marlborough’s tangata whenua iwi.</p> <p>[RPS]</p>	<p>The applicant has given particular consideration to the matters in objective 3.5, as discussed above and in the AEE, in order to assist decision makers.</p>
<p>Policy 3.1.1 – Management of natural and physical resources in Marlborough will be carried out in a manner that:</p> <p>(a) takes into account the principles of the Treaty of Waitangi/Te Tiriti o Waitangi, including kāwanatanga, rangatiratanga, partnership, active protection of natural resources and spiritual recognition.</p> <p>(b) recognises that the way in which the principles of the Treaty of Waitangi/Te Tiriti o Waitangi will be applied will continue to evolve;</p> <p>(c) promotes awareness and understanding of the Marlborough District Council’s obligations under the Resource</p>	<p>See above.</p>

MEP Provision	Evaluation
<p>Management Act 1991 regarding the principles of the Treaty of Waitangi/Te Tiriti o Waitangi among Council decision makers, staff and the community;</p> <p>(d) recognises that tangata whenua have rights protected by the Treaty of Waitangi/Te Tiriti o Waitangi and that consequently the Resource Management Act 1991 accords iwi a status distinct from that of interest groups and members of the public; and</p> <p>(e) recognises the right of each iwi to define their own preferences for the sustainable management of natural and physical resources, where this is not inconsistent with the Resource Management Act 1991.</p> <p>[RPS]</p>	
<p>Policy 3.1.2 – An applicant will be expected to consult early in the development of a proposal (for resource consent or plan change) so that cultural values of Marlborough’s tangata whenua iwi can be taken into account.</p> <p>[RPS]</p>	[To be undertaken].
<p>Policy 3.1.3 – Where an application for resource consent or plan change is likely to affect the relationship of Marlborough’s tangata whenua iwi and their culture and traditions, decision makers shall ensure:</p> <p>(a) the ability for tangata whenua to exercise kaitiakitanga is maintained;</p> <p>(b) mauri is maintained or improved where degraded, particularly in relation to fresh and coastal waters, land and air;</p> <p>(c) mahinga kai and natural resources used for customary purposes are maintained or enhanced and that these resources are healthy and accessible to tangata whenua;</p> <p>(d) for waterbodies, the elements of physical health to be assessed are:</p> <ul style="list-style-type: none"> i. aesthetic and sensory qualities, e.g. clarity, colour, natural character, smell and sustenance for indigenous flora and fauna; ii. life-supporting capacity, ecosystem robustness and habitat richness; iii. depth and velocity of flow (reflecting the life force of the river through its changing character, flows and fluctuations); iv. continuity of flow from the sources of a river to its mouth at the sea; 	<p>The applicant has had regard to the matters in Policy 3.1.3, as set out above, and in the AEE. Ecological effects have been assessed by Rob Davidson in his report.</p> <div data-bbox="1435 1114 1653 1481" style="border: 2px solid black; padding: 5px; text-align: center;"> <p>RECEIVED 10 NOV 2017 MARLBOROUGH DISTRICT COUNCIL</p> </div>

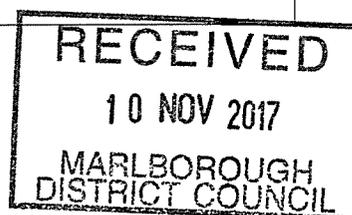
MEP Provision	Evaluation
<p>v. wilderness and natural character;</p> <p>vi. productive capacity; and</p> <p>vii. fitness to support human use, including cultural uses.</p> <p>(e) how traditional Māori uses and practices relating to natural and physical resources such as mahinga maataitai, waahi tapu, papakāinga and taonga raranga are to be recognised and provided for.</p> <p>[RPS]</p>	
<p>Policy 3.1.5 – Ensure iwi management plans are taken into account in resource management decision making processes.</p> <p>[RPS]</p>	<p>The applicant has reviewed the iwi management plans of Ngāti Kōata and Te Ātiawa o Te Waka-a-Māui and Ngati Kuia. No areas of conflict have been identified.</p>
<p>Objective 4.1 – Marlborough’s primary production sector and tourism sector continue to be successful and thrive whilst ensuring the sustainability of natural resources.</p> <p>[RPS]</p>	<p>The proposal ensures the sustainability of natural resources, as the adverse effects of aquaculture in Pigyard Bay are likely to be limited. Within months of removing the farms, any trace of their presence will dissipate. Therefore, the proposal does not restrict the ability of future generations to decide how they wish to use these resources. Moreover, the farming of algae will assist in countering the effects of ocean acidification.</p> <p>The proposal has economic and employment benefits to the applicants and community</p>
<p>Policy 4.1.2 – Enable sustainable use of natural resources in the Marlborough environment.</p> <p>[RPS]</p>	<p>As above at Objective 4.1.</p>
<p>Policy 4.1.3 – Maintain and enhance the quality of natural resources.</p> <p>[RPS]</p>	<p>The proposal will have less than minor effects on the quality of the natural resources at Pigyard Bay, and those effects are reversible upon removal of the farms.</p>

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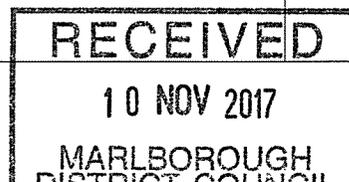
MEP Provision	Evaluation
<p>Objective 4.3 – The maintenance and enhancement of the visual, ecological and physical qualities that contribute to the character of the Marlborough Sounds.</p> <p>[RPS]</p>	<p>The ecological character of the site will be maintained (see Davidson report. The application site is located over a muddy habitat, typical of sheltered muddy areas in the Sounds. The effects of mussel farming are not likely to be significant. The farm would not have adverse effects on the water column. Shellfish farming at the site would have little impact on sediment enrichment and the infauna.</p>
<p>Policy 4.3.1 – Integrate management of the natural and physical resources within the Marlborough Sounds environment.</p> <p>[RPS]</p>	<p>Integrated management is arguably a matter for Council under Policy 4 of the NZCPS.</p>
<p>Policy 4.3.2 – Identify the qualities and values that contribute to the unique and iconic character of the Marlborough Sounds and protect these from inappropriate subdivision, use and development.</p> <p>[RPS]</p>	<p>The applicant has had regard to the qualities and values identified by the Council in the MEP, as indicated elsewhere in this policy assessment and in the application. Overall, the proposal is appropriate.</p>
<p>Policy 4.3.3 – Provide direction on the appropriateness of resource use activities in the Marlborough Sounds environment.</p> <p>[RPS]</p>	<p>The aquaculture provisions of the MEP have yet to be notified. The proposed site in Pigyard Bay can appropriately be rezoned as CM22 under the operative MSRMP.</p> <p>Policy 9.2.1.1.14 of the MSRMP enables marine farming in appropriate places, with zoning being a key method of implementation. The AEE shows that the proposed farm will have no significant adverse effects on these values.</p>
<p>Policy 4.3.4 – Enhance the qualities and values that contribute to the unique and iconic character of the Marlborough Sounds.</p> <p>[RPS]</p>	<p>The proposal will not have significant effects on the qualities and values of the Sounds, and any effects are reversible upon removal of the farms.</p>
<p>Policy 4.3.5 – Recognise that the Marlborough Sounds is a dynamic environment</p> <p>[RPS]</p>	<p>The applicant recognises that the Sounds is a dynamic environment. The Kenepuru Sound and Pigyard Bay has the capacity to absorb change, particularly given the backdrop of farm land. The appropriateness of the farm can be re-assessed by future generations in the context of the future environment of the bay through the resource consenting process.</p>



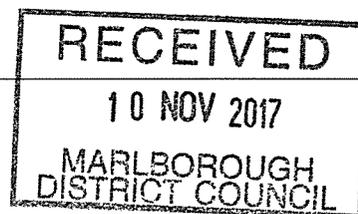
MEP Provision	Evaluation
Objective 5.10 – Equitable and sustainable allocation of public space within Marlborough’s coastal marine area. [RPS, C]	The applicant acknowledges that it is a privilege to occupy public space in the coastal marine area. The public will still have access around and through the site, and the proposal will not affect the ability of future generations to enjoy that public space.
Policy 5.10.1 – Recognition that there are no inherent rights to be able to use, develop or occupy the coastal marine area. [RPS, C]	The applicant recognises that it has no right to occupy and use the coastal marine area, and requires a resource consent for the proposed activity.
Policy 5.10.2 – The ‘first in, first served’ method is the default mechanism to be used in the allocation of resources in the coastal marine area. Where competing demand for coastal space becomes apparent, the Marlborough District Council may consider the option of introducing an alternative regime. [RPS, C]	The applicant considers that the first in first served method of allocation is appropriate in respect of the proposed site in Pigyard Bay. The farm is in existence and a renewal is proposed that aligns the site with another marine farm adjacent, but across the bay to the east.
Policy 5.10.3 – Where a right to occupy the coastal marine area is sought, the area of exclusive occupation should be minimised to that necessary and reasonable to undertake the activity, having regard to the public interest. [RPS, C]	The design of the site layout ensures the public will have access inshore of and through the farm. Access ways have been provided around the site.
Policy 5.10.4 – Coastal occupancy charges will be imposed on coastal permits where there is greater private than public benefit arising from occupation of the coastal marine area. [C]	The applicant would be comfortable paying coastal occupancy charges to reflect the private benefit from occupying space in Pigyard Bay. However, it is concerned that the level of these charges or at least the method of setting these, is not set out in the MEP.
Policy 5.10.5 – The Marlborough District Council will waive the need for coastal occupancy charges for the following: ... (b) monitoring equipment; [C]	If any monitoring equipment is required to be permanently installed at the site as a condition of consent, the applicant agrees that coastal occupancy charges for that equipment should be waived. However, Mr Davidson concluded that there were no biological reasons for site specific monitoring.
Policy 5.10.6 – Where there is an application by a resource consent holder to request a waiver (in whole or in part) of a coastal occupation charge, the following circumstances will be considered: [(a) – (d)] [C]	The applicant does not request a waiver of coastal occupancy charges.



MEP Provision	Evaluation
<p>Objective 6.1 – Establish the degree of natural character in the coastal environment, and in lakes and rivers and their margins.</p> <p>[RPS]</p>	<p>The applicant has had regard to the natural character overlay in the MEP.</p>
<p>Policy 6.1.1 – Recognise that the following natural elements, patterns, processes and experiential qualities contribute to natural character:</p> <p>(a) areas or water bodies in their natural state or close to their natural state;</p> <p>(b) coastal or freshwater landforms and landscapes (including seascape);</p> <p>(c) coastal or freshwater physical processes (including the natural movement of water and sediments);</p> <p>(d) biodiversity (including individual indigenous species, their habitats and communities they form);</p> <p>(e) biological processes and patterns;</p> <p>(f) water flows and levels and water quality; and</p> <p>(g) the experience of the above elements, patterns and processes, including unmodified, scenic and wilderness qualities.</p> <p>[RPS]</p>	<p>Between them, the applicant and Rob Davidson have assessed the effects of the proposal on biological processes and people's perceptions of those processes.</p>
<p>Policy 6.1.2 – The extent of the coastal environment is identified in the Marlborough Environment Plan to establish the areas of land and coastal marine area to which management may need to be applied in order to protect the natural character of the coastal environment from inappropriate subdivision, use and development.</p> <p>[RPS]</p>	<p>This is a matter for Council; however, the applicant has been mindful of the extent of the coastal environment in making this application.</p>
<p>Policy 6.1.3 – Determine the degree of natural character in both the coastal marine and coastal terrestrial components of the coastal environment by assessing:</p> <p>(a) the degree of human-induced modification on abiotic systems and landforms, marine and terrestrial biotic systems and experiential qualities; and</p> <p>(b) natural character at a range of scales.</p> <p>[RPS]</p>	<p>The Council has undertaken this assessment in the MEP. The natural character of the coastal marine area of Pigyard Bay has not been assessed as High.</p>



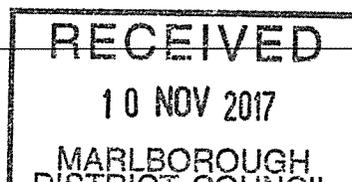
MEP Provision	Evaluation
<p>Policy 6.1.4 – Identify those areas of the coastal environment that have high, very high or outstanding natural character.</p> <p>[RPS]</p>	<p>The Council has not identified the coastal marine area of Pigyard Bay as having Outstanding, High and very high natural character. For the terrestrial and marine environments combine to create the natural character value of this location, with an overall rating of Moderate. Forestry on land dominates the area with aquaculture also significant. That causes some disruption to natural processes (reducing natural science values) and reduces perceptual/sensory values (through reduced perceived naturalness, coherence and visual amenity).</p>
<p>Objective 6.2 – Preserve the natural character of the coastal environment, and lakes and rivers and their margins, and protect them from inappropriate subdivision, use and development.</p> <p>[RPS, R, C, D]</p>	<p>The proposal is appropriate, fits with the existing context and will not adversely compromise the existing values of the area.</p>
<p>Policy 6.2.1 – Avoid the adverse effects of subdivision, use or development on areas of the coastal environment with outstanding natural character values...</p> <p>[RPS, R, C, D]</p>	<p>N/A – Pigyard Bay is not identified in the MEP as having outstanding natural character values at this location.</p>
<p>Policy 6.2.2 – Avoid significant adverse effects of subdivision, use or development on coastal natural character, having regard to the significance criteria in Appendix 4.</p> <p>[RPS, R, C, D]</p>	<p>The proposal avoids significant adverse effects. The degree of modification is moderate, with no damage, loss or destruction. The effects are reversible upon removal of the farm. This is an existing farm occupying space. The location is resilient to change, as it is able to absorb the proposed farm given the layout and extent of surrounding marine farms.</p>
<p>Policy 6.2.3 – Where natural character is classified as high or very high, avoid any reduction in the degree of natural character of the coastal environment or freshwater bodies.</p> <p>[RPS, R, C, D]</p>	<p>The natural character of the coastal marine area in Pigyard Bay is not mapped as having high, very high or outstanding natural character in the MEP. None of the surrounding terrestrial area is mapped as having high to very high natural character. The farm will not impact on the terrestrial ecology of the values that lead to that classification.</p>
<p>Policy 6.2.4 – Where resource consent is required to undertake an activity within coastal or freshwater environments with high, very high or outstanding natural character, regard will be had to the potential adverse effects of the proposal on the elements, patterns, processes and experiential qualities that contribute to natural character.</p> <p>[RPS, R, C, D]</p>	<p>Assessment of the natural science (biophysical) values of the site as being low-moderate overall. Rob Davidson notes that the application site is located over a mud habitat, typical of sheltered muddy areas in the Sounds. The epibiota and infaunal communities are typical of muddy sheltered areas in the Sounds. It is well established that mussel farming has a less than minor impact on the biophysical</p>



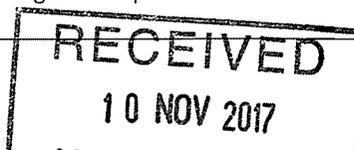
MEP Provision	Evaluation
	<p>attributes of natural character.</p> <p>The site is of mixed character set within a wider working landscape. There are existing structures, but the “managed” character of the context dominates. Vegetation patterns are fragmented. There is some sense of remoteness and enclosure. While the farm would reduce the perceived naturalness and have a moderate effect on natural character, the site is considered able to absorb the proposed level of change.</p>
<p>Policy 6.2.5 – Recognise that development in parts of the coastal environment and in those rivers and lakes and their margins that have already been modified by past and present resource use activities is less likely to result in adverse effects on natural character.</p> <p>[RPS, R, C, D]</p>	<p>The bay has extensive forestry that has is highly visible. There are dwellings located at the head of the Bay. The proposal is less likely to have an adverse effect on natural character given this existing development.</p>
<p>Policy 6.2.6 – In assessing the appropriateness of subdivision, use or development in coastal or freshwater environments, regard shall be given to the potential to enhance natural character in the area subject to the proposal.</p> <p>[RPS, R, C, D]</p>	<p>No enhancement is proposed.</p>
<p>Policy 6.2.7 – In assessing the cumulative effects of activities on the natural character of the coastal environment, or in or near lakes or rivers, consideration shall be given to:</p> <p>(a) the effect of allowing more of the same or similar activity;</p> <p>(b) the result of allowing more of a particular effect, whether from the same activity or from other activities causing the same or similar effect; and</p> <p>(c) the combined effects from all activities in the coastal or freshwater environment in the locality.</p> <p>[RPS, R, C, D]</p>	<p>There are existing marine farms in the Bay. There are no significant adverse cumulative effects. Navigational lighting at night would be less intrusive than lighting associated with dwellings.</p> <p>There is a clustering of activity that focuses effects to a confined area of Pigyard Bay. The proposed renewal will maintain an existing farm. Visually, it is not likely to have an adverse effect in that context.</p>
<p>Policy 6.2.9 – Encourage and support private landowners, community groups and others in their efforts to restore the natural character of the coastal environment, wetlands, lakes and rivers.</p> <p>[RPS, R, C, D]</p>	<p>N/A</p>



MEP Provision	Evaluation
<p>Objective 7.1 – Identify Marlborough’s outstanding natural features and landscapes and landscapes with high amenity value.</p> <p>[RPS]</p>	<p>The applicant has had regard to the landscape overlay in the MEP. Amenity values include the two marine farms. The area is identified as Marlborough Sounds Coastal Landscape</p>
<p>Policy 7.1.1 – When assessing the values of Marlborough’s landscapes, the following criteria will be used:</p> <p>(a) biophysical values, including geological and ecological elements;</p> <p>(b) sensory values, including aesthetics, natural beauty and visual perception; and</p> <p>(c) associative values, including cultural and historic values and landscapes that are widely known and valued by the immediate and wider community for their contribution to a sense of place.</p> <p>[RPS]</p>	<p>.</p>
<p>Policy 7.1.2 – Define the boundaries of significant landscapes using the following methods:</p> <p>(a) land typing;</p> <p>(b) contour line;</p> <p>(c) contained landscape features;</p> <p>(d) visual catchment; and/or</p> <p>(e) land use.</p> <p>[RPS]</p>	<p>Pigyard Bay is part of the wider Marlborough Sounds Coastal Landscape in the MEP; however, it is not identified as an outstanding natural feature or landscape (ONFL) in the MEP. The wider area is noted in Marlborough Sounds coastal landscape reflecting the aquaculture that takes place there.</p>
<p>Policy 7.1.3 – Assessment of the values in Policy 7.1.1 will determine:</p> <p>(a) whether a landscape is identified as an outstanding natural feature and landscape in terms of Section 6(b) of the Resource Management Act 1991;</p> <p>(b) whether the landscape has high amenity value in terms of Section 7(c) of the Resource Management Act 1991; or</p> <p>(c) where landscape values are not sensitive to change.</p>	<p>Pigyard Bay seascape is not an ONFL in terms of s 6(b) of the Act, so Policy 7.1.3(a) does not apply.</p> <p>The MEP maps the entirety of the Marlborough Sounds as having high amenity values. The visual amenity baseline in Pigyard Bay at a local scale is of moderate rating. There is a limited viewing audience for the proposed site, being passing recreational vessels and static views from dwellings at the head of the Bay and adjacent to the site.</p> <p>The site has low sensitivity to change in terms of landscape and natural character, consistent with Policy 7.1.3(c). The presence of</p>



MEP Provision	Evaluation
[RPS]	dwellings to the south increases the sensitivity in relation to visual amenity.
<p>Policy 7.1.4 – Landscapes that meet the criteria to be identified as an outstanding natural feature and landscape, or landscapes with high amenity value, where those values are more sensitive to change:</p> <p>(a) are specifically identified on the Landscape Overlay; and</p> <p>(b) the specific values associated with the identified landscapes are set out in Appendix 1 of Volume 3 of the Marlborough Environment Plan.</p> <p>[RPS, R, C, D]</p>	The Marlborough Sounds Coastal Landscape is mapped as a high amenity landscape in the MEP and the values are set out in Appendix 1. The applicant has had regard to these values when preparing this application.
<p>Policy 7.1.5 – Refine the boundaries of outstanding natural features and landscapes and landscapes with high amenity value in response to:</p> <p>(a) landscape change over time; or</p> <p>(b) more detailed assessment of landscape values.</p> <p>[RPS, R, C, D]</p>	The proposed application does not prevent Council from refining boundaries in the future.
Objective 7.2 – Protect outstanding natural features and landscapes from inappropriate subdivision, use and development and maintain and enhance landscapes with high amenity value.	The proposal will not have an impact on the values that lead to the entirety of the Marlborough Sounds being mapped as a high amenity landscape. The impacts are localised, and would occur in a bay that is not particularly representative of the values listed in Appendix 1.
<p>Policy 7.2.1 – Control activities that have the potential to degrade those values contributing to outstanding natural features and landscapes by requiring activities and structures to be subject to a comprehensive assessment of effects on landscape values through the resource consent process.</p> <p>[R, C, D]</p>	The seascape of Pigyard Bay is not an ONFL.
<p>Policy 7.2.3 – Control activities that have the potential to degrade the amenity values that contribute to those areas of the Marlborough Sounds Coastal Landscape not identified as being an outstanding natural feature and landscape by:</p> <p>(a) using a non-regulatory approach as the means of maintaining and enhancing landscape values in areas of this landscape zoned as Coastal Living;</p>	Policy 7.2.3(b) does not apply to the proposed site, because aquaculture rules have yet to be included in the MEP. As a result, this application proposal must be assessed against the rules applying under the operative MSRMP. This has been done in a separate policy analysis table.



MEP Provision	Evaluation
<p>(b) setting standards/conditions that are consistent with the existing landscape values and that will require greater assessment where proposed activities and structures exceed those standards; and...</p> <p>[C, D]</p>	
<p>Policy 7.2.4 – Where resource consent is required to undertake an activity within an outstanding natural feature and landscape or a landscape with high amenity value, regard will be had to the potential adverse effects of the proposal on the values that contribute to the landscape.</p> <p>[R, C, D]</p>	<p>The proposal will not have an effect on this wider landscape. Pigyard Bay is capable of absorbing the level of activity.</p>
<p>Policy 7.2.5 – Avoid adverse effects on the values that contribute to outstanding natural features and landscapes in the first instance. Where adverse effects cannot be avoided and the activity is not proposed to take place in the coastal environment, ensure that the adverse effects are remedied.</p> <p>[R, C, D]</p>	<p>N/A – Pigyard Bay seascape is not an ONFL.</p>
<p>Policy 7.2.7 – Protect the values of outstanding natural features and landscapes and the high amenity values of the Wairau Dry Hills and the Marlborough Sounds Coastal Landscapes by:</p> <p>(a) In respect of structures:</p> <ul style="list-style-type: none"> (i) avoiding visual intrusion on skylines, particularly when viewed from public places; (ii) avoiding new dwellings in close proximity to the foreshore; (iii) using reflectivity levels and building materials that complement the colours in the surrounding landscape; (iv) limiting the scale, height and placement of structures to minimise intrusion of built form into the landscape; (v) recognising that existing structures may contribute to the landscape character of an area and additional structures may complement this contribution; (vi) making use of existing vegetation as a background and utilising new vegetation as a screen to reduce the visual impact of built form on the surrounding landscape, providing that the vegetation used is also in keeping with the surrounding landscape character; and 	<p>The structures are already in place in the parent farm. The farm follows the contour of the shoreline. Mussel buoys are low profile and predominantly black, save for orange navigation buoys required for navigational safety. The remainder of policy 7.2.7 does not apply to marine farming structures.</p>



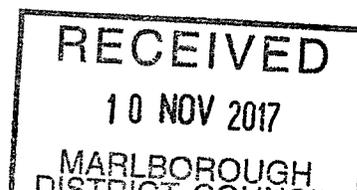
MEP Provision	Evaluation
(vii) encouraging utilities to be co-located wherever possible... [R, C, D]	
Policy 7.2.8 – Recognise that some outstanding natural features and landscapes and landscapes with high amenity value will fall within areas in which primary production activities currently occur. [C, D]	Pigyard Bay seascape is not an ONFL. Forestry is a dominant feature of the Bay. The proposal is consistent with this primary production character.
Policy 7.2.9 – When considering resource consent applications for activities in close proximity to outstanding natural features and landscapes, regard may be had to the matters in Policy 2.2.7. [R, C, D]	N/A -The site is not in close proximity to an ONFL Policy 7.2.7 has been considered above.
Policy 7.2.10 – Reduce the impact of wilding pines on the landscape by: (a) supporting initiatives to control existing wilding pines and limit their further spread; and... [D]	N/A.
Objective 8.1 – Marlborough’s remaining indigenous biodiversity in terrestrial, freshwater and coastal environments is protected.	The applicant has had regard to Objective 8.1 in preparing this application, as outlined in relation to the policies below.
Objective 8.2 – An increase in area/extent of Marlborough’s indigenous biodiversity and restoration or improvement in the condition of areas that have been degraded.	N/A
Policy 8.1.1 – When assessing whether wetlands, marine or terrestrial ecosystems, habitats and areas have significant indigenous biodiversity value, the following criteria will be used: (a) representativeness; (b) rarity; (c) diversity and pattern; (d) distinctiveness;	The applicant has had regard to the significance criteria, and notes that these are based on the criteria in Davidson’s 2011 report <i>Ecologically Significant Marine Sites in Marlborough, New Zealand</i> . Davidson undertook a biological survey of the proposed site in 2017. Davidson has identified ecosystems or marine habitats of note over the outer original proposed farm. The application site is located over a mud habitat, typical of sheltered muddy areas in the Sounds. He concluded that the effects of low intensity farming are not likely to be



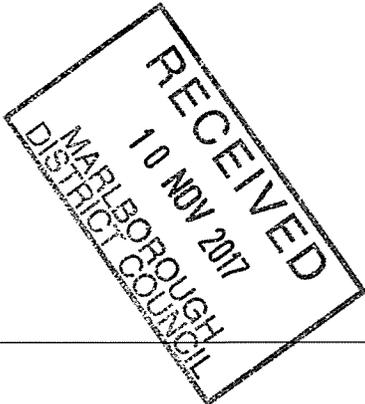
MEP Provision	Evaluation
<p>(e) size and shape;</p> <p>(f) connectivity/ecological context;</p> <p>(g) sustainability; and</p> <p>(h) adjacent catchment modifications.</p> <p>For a site to be considered significant, one of the first four criteria (representativeness, rarity, diversity and pattern or distinctiveness/special ecological characteristics) must rank medium or high.</p>	<p>significant.</p>
<p>Policy 8.1.2 – Sites in the coastal marine area and natural wetlands assessed as having significant indigenous biodiversity value will be specifically identified in the Marlborough Environment Plan.</p>	<p>The applicant has had regard to the ecologically significant marine sites mapped in volume 4 of the proposed MEP.</p>
<p>Policy 8.1.3 – Having adequate information on the state of biodiversity in terrestrial, freshwater and coastal environments in Marlborough to enable decision makers to assess the impact on biodiversity values from various activities and uses.</p>	<p>The applicant notes that the Council will continue to undertake surveys to improve knowledge. A site specific assessment was undertaken by Rob Davidson for this proposal. His report will add to the general body of knowledge.</p>
<p>Policy 8.2.1 – A variety of means will be used to assist in the protection and enhancement of areas and habitats with indigenous biodiversity value, including partnerships, support and liaison with landowners, regulation, pest management, legal protection, education and the provision of information and guidelines.</p>	<p>The proposal is consistent with policy 8.2.1. It is prepared over habitat appropriate for marine farming.</p>
<p>Policy 8.2.3 – Priority will be given to the protection, maintenance and restoration of habitats, ecosystems and areas that have significant indigenous biodiversity values, particularly those that are legally protected.</p>	<p>N/A</p>
<p>Policy 8.2.7 – A strategic approach to the containment/eradication of undesirable animals and plants that impact on indigenous biodiversity values will be developed and maintained.</p>	<p>N/A</p>
<p>Policy 8.2.8 – Where monitoring of ecosystems, habitats and areas with significant indigenous biodiversity value shows that there is a loss of or deterioration in condition of these sites, then the Marlborough District Council will review the approach to protection.</p>	<p>The applicant is aware of this policy, and acknowledges the Council's role in protecting biodiversity.</p>



MEP Provision	Evaluation
<p>Policy 8.2.9 – Maintain, enhance or restore ecosystems, habitats and areas of indigenous biodiversity even where these are not identified as significant in terms of the criteria in Policy 8.1.1, but are important for:</p> <ul style="list-style-type: none"> (a) the continued functioning of ecological processes; (b) providing connections within or corridors between habitats of indigenous flora and fauna; (c) cultural purposes; (d) providing buffers or filters between land uses and wetlands, lakes or rivers and the coastal marine area; (e) botanical, wildlife, fishery and amenity values; (f) biological and genetic diversity; and (g) water quality, levels and flows. 	<p>Marine farming in Pigyard Bay would not interfere with the continued functioning of ecological processes, biological and genetic diversity or water quality, levels and flows to any noticeable degree.</p> <p>The presence of surface buoys and harvest vessels would have some impact on amenity values, particularly for owners and users of nearby dwellings.</p> <p>The applicant recognises that resources are finite. Future generations could decide to remove the farm, and the effects will be reversible. In particular, amenity would be restored instantly upon removal of the farm.</p>
<p>Policy 8.2.10 – Promote to the general public and landowners the importance of protecting and maintaining indigenous biodiversity because of its intrinsic, conservation, social, economic, scientific, cultural, heritage and educational worth and for its contribution to natural character.</p>	<p>The applicant recognises the importance of protecting and maintaining indigenous biodiversity. Natural character has been considered above in relation to the policies in chapter 6.</p>
<p>Policy 8.2.12 – Encourage and support private landowners, community groups and others in their efforts to protect, restore or re-establish areas of indigenous biodiversity.</p>	<p>N/A</p>
<p>Policy 8.3.1 – Manage the effects of subdivision, use or development in the coastal environment by:</p> <ul style="list-style-type: none"> (a) avoiding adverse effects where the areas, habitats or ecosystems are those set out in Policy 11(a) of the New Zealand Coastal Policy Statement 2010; (b) avoiding adverse effects where the areas, habitats or ecosystems are mapped as significant wetlands or ecologically significant marine sites in the Marlborough Environment Plan; or (c) avoiding significant adverse effects and avoiding, remedying or mitigating other adverse effects where the areas, habitats or ecosystems are those set out in Policy 11(b) of the New Zealand Coastal Policy Statement 2010 or are not identified as significant in terms of Policy 8.1.1 of the Marlborough Environment Plan. 	<p>Pigyard Bay is not specifically recognised as an important area. There is nothing to suggest that the site is significant for marine mammals.</p>



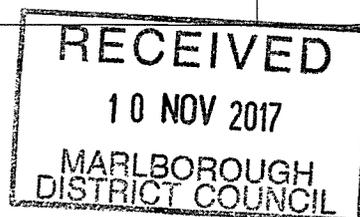
MEP Provision	Evaluation
<p>Policy 8.3.2 – Where subdivision, use or development requires resource consent, the adverse effects on areas, habitats or ecosystems with indigenous biodiversity value shall be:</p> <p>(a) avoided where it is a significant site in the context of Policy 8.1.1; and</p> <p>(b) avoided, remedied or mitigated where indigenous biodiversity values have not been assessed as being significant in terms of Policy 8.1.1</p>	<p>There are no areas, habitats or ecosystems with indigenous biodiversity value that require to be avoided.</p>
<p>Policy 8.3.5 – In the context of Policy 8.3.1 and Policy 8.3.2, adverse effects to be avoided or otherwise remedied or mitigated may include:</p> <p>(a) fragmentation of or a reduction in the size and extent of indigenous ecosystems and habitats;</p> <p>(b) fragmentation or disruption of connections or buffer zones between and around ecosystems or habitats;</p> <p>(c) changes that result in increased threats from pests (both plant and animal) on indigenous biodiversity and ecosystems;</p> <p>(d) the loss of a rare or threatened species or its habitat;</p> <p>(e) loss or degradation of wetlands, dune systems or coastal forests;</p> <p>(f) loss of mauri or taonga species;</p> <p>(g) impacts on habitats important as breeding, nursery or feeding areas, including for birds;</p> <p>(h) impacts on habitats for fish spawning or the obstruction of the migration of fish species;</p> <p>(i) impacts on any marine mammal sanctuary, marine mammal migration route or breeding, feeding or haul out area;</p> <p>(j) a reduction in the abundance or natural diversity of indigenous vegetation and habitats of indigenous fauna;</p> <p>(k) loss of ecosystem services;</p> <p>(l) effects that contribute to a cumulative loss or degradation of habitats and ecosystems;</p> <p>(m) loss of or damage to ecological mosaics, sequences, processes or integrity;</p> <p>(n) effects on the functioning of estuaries, coastal wetlands and their margins;</p>	<p>The proposal avoids the adverse effects in Policy 8.3.5. In particular, Pigyard Bay is not a marine mammal sanctuary, migration route, breeding, feeding or haul out area.</p> <div data-bbox="1361 1219 1729 1449" style="text-align: right; border: 1px solid black; padding: 5px; width: fit-content;"> <p>RECEIVED 10 NOV 2017 MARLBOROUGH DISTRICT COUNCIL</p> </div>

MEP Provision	Evaluation
<p>(o) downstream effects on significant wetlands, rivers, streams and lakes from hydrological changes higher up the catchment;</p> <p>(p) natural flows altered to such an extent that it affects the life supporting capacity of waterbodies;</p> <p>(q) a modification of the viability or value of indigenous vegetation and habitats of indigenous fauna as a result of the use or development of other land, freshwater or coastal resources;</p> <p>(r) a reduction in the value of the historical, cultural and spiritual association with significant indigenous biodiversity held by Marlborough's tangata whenua iwi;</p> <p>(s) a reduction in the value of the historical, cultural and spiritual association with significant indigenous biodiversity held by the wider community; and</p> <p>(t) the destruction of or significant reduction in educational, scientific, amenity, historical, cultural, landscape or natural character values.</p>	
<p>Policy 8.3.8 – With the exception of areas with significant indigenous biodiversity value, where indigenous biodiversity values will be adversely affected through land use or other activities, a biodiversity offset can be considered to mitigate residual adverse effects. Where a biodiversity offset is proposed, the following criteria will apply:</p> <p>(a) the offset will only compensate for residual adverse effects that cannot otherwise be avoided, remedied or mitigated;</p> <p>(b) the residual adverse effects on biodiversity are capable of being offset and will be fully compensated by the offset to ensure no net loss of biodiversity;</p> <p>(c) where the area to be offset is identified as a national priority for protection under Objective 8.1, the offset must deliver a net gain for biodiversity;</p> <p>(d) there is a strong likelihood that the offsets will be achieved in perpetuity;</p> <p>(e) where the offset involves the ongoing protection of a separate site, it will deliver no net loss and preferably a net gain for indigenous biodiversity protection; and</p> <p>(f) offsets should re-establish or protect the same type of ecosystem or habitat that is adversely affected, unless an alternative ecosystem or habitat will provide a net gain for indigenous biodiversity.</p>	<p>N/A.</p> 

MEP Provision	Evaluation
<p>Objective 9.1 – The public are able to enjoy the amenity and recreational opportunities of Marlborough’s coastal environment, rivers, lakes, high country and areas of historic interest.</p> <p>[RPS, R, C, D]</p>	<p>The proposal is sited in a zone of two long established marine farms. The public will still have access between longlines and inshore of the site. There is seven registered moorings in the head of the bay, jetties and no formal water ski lanes. Opportunities for recreational fishing may be enhanced by the presence of the marine farm.</p>
<p>Policy 9.1.1 – The following areas are identified as having a high degree of importance for public access and the Marlborough District Council will as a priority focus on enhancing access to and within these areas:</p> <ul style="list-style-type: none"> (b) high priority waterbodies for public access on the Wairau Plain and in close proximity to Picton, Waikawa, Havelock, Renwick, Seddon, Ward and Okiwi Bay; (c) coastal marine area, particularly in and near Picton, Waikawa and Havelock, Kaiuma Bay, Queen Charlotte Sound (including Tory Channel), Pigyard Bay, Kenepuru Sound, Mahau Sound, Mahikipawa Arm and Croiselles Harbour, Rarangi to the Wairau River mouth, Wairau Lagoons, Marfells Beach and Ward Beach... <p>[RPS]</p>	<p>This part of Pigyard Bay is not identified as an area having a high degree of importance for public access. This area is occasionally frequented by recreationalists. The public will not be excluded from the area of the proposed site.</p>
<p>Policy 9.1.2 – In addition to the specified areas in Policy 9.1.1, the need for public access to be enhanced to and along the coastal marine area, lakes and rivers will be considered at the time of subdivision or development, in accordance with the following criteria:</p> <ul style="list-style-type: none"> (a) there is existing public recreational use of the area in question, or improving access would promote outdoor recreation; (b) connections between existing public areas would be provided; (c) physical access for people with disabilities would be desirable; and (d) providing access to areas or sites of cultural or historic significance is important. <p>[RPS, C, D]</p>	<p>See above. The farm will not prevent access to areas or sites of cultural and historic significance in the area.</p>
<p>Policy 9.1.5 – Acknowledge the importance New Zealander’s place on the ability to have free and generally unrestricted access to the coast.</p> <p>[RPS, C, D]</p>	<p>The applicant acknowledges the importance to New Zealanders of having unrestricted access to the coast. The site design ensures that the public will continue to have access through the site and along the shore.</p>



MEP Provision	Evaluation
<p>Policy 9.1.7 – Recognise there is an existing network of marinas at Picton, Waikawa and Havelock, publicly owned community jetties, landing areas and launching ramps that make a significant contribution in providing access for the public to Marlborough’s coastal areas.</p> <p>[RPS, C]</p>	<p>The applicant’s contractors will make use of this existing network of facilities. The proposed farm will not affect access.</p>
<p>Policy 9.1.8 – Enable public use of jetties for the purposes of access to the Sounds Foreshore Reserve and legal road along the coast.</p> <p>[RPS, C]</p>	<p>There are no jetties in the vicinity of the site</p>
<p>Policy 9.1.13 – When considering resource consent applications for activities, subdivision or structures in or adjacent to the coastal marine area, lakes or rivers, the impact on public access shall be assessed against the following:</p> <p>(a) whether the application is in an area identified as having a high degree of importance for public access, as set out in Policy 9.1.1;</p> <p>(b) the need for the activity/structure to be located in the coastal marine area and why it cannot be located elsewhere; ...</p> <p>(d) the extent to which the activity/subdivision/structure would benefit or adversely affect public access, customary access and recreational use, irrespective of its intended purpose;</p> <p>(e) in the coastal marine area, whether exclusive rights of occupation are being sought as part of the application;</p> <p>(f) for the Marlborough Sounds, whether there is practical road access to the site of the application;</p> <p>(g) how public access around or over any structure sought as part of an application is to be provided for;</p> <p>(h) whether the impact on public access is temporary or permanent and whether there is any alternative public access available; and</p> <p>(i) whether public access is able to be restricted in accordance with Policies 9.2.1 and 9.2.2.</p> <p>[C, D]</p>	<p>The structures have a functional need to be located in the coastal marine area. The public will have access through and around the site. Exclusive occupation is not sought. There is no road access. The proposed farm will not restrict boat access to this area. Any impact on public access would be temporary, being reversible upon removal of the farm. Any restrictions on public access will be consistent with the purpose of a resource consent to farm, in line with policy 9.2.1. The effects on public access will be no more than minor, in accordance with policy 9.2.2.</p>



MEP Provision	Evaluation
<p>Policy 9.3.2 – Seek diversity in the type and size of open spaces and recreational facilities to meet local, district, regional and nationwide needs, by: ... (d) recognising and protecting the value of open space in the coastal marine area, high country environments and river beds.</p> <p>[RPS, C, D]</p>	<p>The applicant recognises the value of open space and has designed the site layout with this in mind.</p>
<p>Policy 9.3.3 – Support the management of reserves through strategies and reserve management plans prepared under the Conservation and Reserves Acts.</p> <p>[D]</p>	<p>N/A.</p>
<p>Objective 10.1 – Retain and protect heritage resources that contribute to the character of Marlborough.</p> <p>[RPS]</p>	<p>The applicant has had regard to historic and cultural sites within the vicinity of the proposed farm. The application will not have an impact on heritage resources.</p>
<p>Policy 10.1.3 – Identify and provide appropriate protection to Marlborough’s heritage resources, including:</p> <p>(a) historic buildings (or parts of buildings), places and sites;</p> <p>(b) heritage trees;</p> <p>(c) places of significance to Marlborough’s tangata whenua iwi;</p> <p>(d) archaeological sites; and</p> <p>(e) monuments and plaques.</p> <p>[RPS, C, D]</p>	<p>The Historic Places Inventory notes has been consulted and none are recorded nearby. If sites are present the proposed farm will not impact adversely on these sites.</p> <p>The applicant is aware of the importance of the waters of the Marlborough Sounds to Iwi. It recognises that there are Maori archaeological sites within the wider Pelorus Sound. Iwi have been consulted and will be provided with a final copy of the proposal at lodgement.</p>
<p>Chapter 13 objectives and policies.</p>	<p>N/A – Chapter 13 expressly states that it “does not contain provisions managing marine farming.”</p>
<p>Objective 15.1a – Maintain and where necessary enhance water quality in Marlborough’s rivers, lakes, wetlands, aquifers and coastal waters, so that:</p> <p>(a) the mauri of wai is protected;</p>	<p>Marine farming will not have an adverse effect on water quality within the Pigyard Bay.</p>



MEP Provision	Evaluation
<p>(b) water quality at beaches is suitable for contact recreation;</p> <p>(c) people can use the coast, rivers, lakes and wetlands for food gathering, cultural, commercial and other purposes;</p> <p>... (f) coastal waters support healthy ecosystems.</p> <p>[RPS, R, C]</p>	
<p>Policy 15.1.1 – As a minimum, the quality of freshwater and coastal waters will be managed so that they are suitable for the following purposes:</p> <p>(a) Coastal waters: protection of marine ecosystems; potential for contact recreation and food gathering/marine farming; and for cultural and aesthetic purposes; ...</p> <p>[RPS, R, C]</p>	<p>Aquaculture requires excellent water quality. The proposed farm will not have an adverse effect on water quality and would assist in removing some anthropogenic nitrogen from the water column.</p>
<p>Policy 15.1.9 – Enable point source discharge of contaminants or water to water where the discharge will not result:</p> <p>(a) in any of the following adverse effects beyond the zone of reasonable mixing:</p> <ul style="list-style-type: none"> (i) the production of conspicuous oil or grease films, scums, foams or floatable or suspended materials; (ii) any conspicuous change in the colour or significant decrease in the clarity of the receiving waters; (iii) the rendering of freshwater unsuitable for consumption by farm animals; (iv) any significant adverse effect on the growth, reproduction or movement of aquatic life; or <p>(d) in the flooding of or damage to another person’s property.</p> <p>[R, C]</p>	
<p>15.1.10 – Require any applicant applying for a discharge permit that proposes the discharge of contaminants to water to consider all potential receiving environments and adopt the best practicable option, having regard to:</p> <p>(a) the nature of the contaminants;</p> <p>(b) the relative sensitivity of the receiving environment;</p>	<p>The 2017 Davidson Environmental Ltd report assessed the likely sedimentation levels and their impact on the coastal environment. Discharge occurs during harvesting, and the effects are momentary and insignificant. Contaminants are materials that are already in the water column, such as sediments and organic materials trapped by</p>



MEP Provision	Evaluation
<p>(c) the financial implications and effects on the environment of each option when compared with the other options; and</p> <p>(d) the current state of technical knowledge and the likelihood that each option can be successfully applied.</p> <p>[RPS, R, C]</p>	<p>lines and structures.</p>
<p>15.1.11 – When considering any discharge permit application for the discharge of contaminants to water, regard will be had to:</p> <p>(a) the potential adverse effects of the discharge on spiritual and cultural values of Marlborough’s tangata whenua iwi;</p> <p>(b) the extent to which contaminants present in the discharge have been removed or reduced through treatment; and</p> <p>(c) whether the discharge is of a temporary or short term nature and/or whether the discharge is associated with necessary maintenance work for any regionally significant infrastructure.</p> <p>[RPS, R, C]</p>	<p>No particular customary activities have been identified for the site. However, as above, recognition is given to Māori culture and traditions and confirmation from Iwi is sought to ensure the proposal does not affect these values.</p> <p>The applicant is aware of the importance of the waters of the Marlborough Sounds to Iwi. Iwi will be consulted and will be provided with a final copy of the proposal at lodgement.</p> <p>Discharge during harvest is temporary in nature and sedimentation soon reverts to background levels.</p>
<p>15.1.12 – After considering Policies 15.1.10 and 15.1.11, approve discharge permit applications to discharge contaminants into water where:</p> <p>(a) the discharge complies with the water quality classification standards set for the waterbody, after reasonable mixing; or</p> <p>(b) in the case of non-compliance with the water quality classification standards set for the waterbody:</p> <p>(i) the consent holder for an existing discharge can demonstrate a reduction in the concentration of contaminants and a commitment to a staged approach for achieving the water quality classification standards within a period of no longer than five years from the date the consent is granted; and</p> <p>(ii) the degree of non-compliance will not give rise to significant adverse effects.</p> <p>[RPS, R, C]</p>	<p>Water discharged during harvesting of mussels will comply with SG standards.</p>



MEP Provision	Evaluation
<p>Policy 15.1.14 – Except as provided for by Policy 15.1.15, apply a zone of reasonable mixing to the receiving waters for all point source discharges to water. The zone shall not exceed (as measured from the discharge point):</p> <p>(d) For coastal waters, limited to the extent necessary to achieve effective mixing, having regard to:</p> <ul style="list-style-type: none"> (i) the characteristics of the discharge, including the contaminant type, concentration and volume; (ii) the coastal processes that exist at and near the point of discharge; and (iii) the nature, sensitivity and use of the coastal waters. <p>[R, C]</p>	
<p>Policy 15.1.16 – The duration of any new discharge permit will be either:</p> <p>(a) Up to a maximum of 15 years for discharges into waterbodies or coastal waters where the discharge will comply with water quality classification standards for the waterbody or coastal waters;</p> <p>... (c) no more than five years where the existing discharge will not comply with water quality classification standards for the waterbody or coastal waters.</p> <p>With the exception of regionally significant infrastructure, no discharge permit will be granted subsequent to the one granted under (c), if the discharge still does not meet the water quality classification standards for the waterbody or coastal waters.</p> <p>[R, C]</p>	<p>NB. Policy relates to point source discharges</p> <p>This policy is inconsistent with s 123A of the Resource Management Act, which provides for a minimum 20 year term for coastal permits authorising aquaculture activities, unless a shorter period is required to ensure that adverse effects on the environment are adequately managed. This high threshold is not met in these circumstances. The applicants seek a 20 year term of consent.</p>
<p>Policy 19.1.3 – Enable primary industries to adapt to the effects of climate change.</p> <p>[R, C, D]</p>	





Davidson Environmental Limited

Biological report for the
reconsenting and extension
to marine farms 8493 & 8494,
Kenepuru Sound, Pelorus
Sound

Research, survey and monitoring report number 873

*A report prepared for:
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C/o PALMS Limited
P.O. Box 751,
Blenheim*

November 2017

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November 2017



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Contents

1.0	Introduction	4
2.0	Background information	6
2.1	Study area.....	6
2.2	Historical reports.....	7
3.0	Methods (present survey).....	7
3.1	Sonar imaging	8
3.2	Drop camera stations, depths and low tide	8
4.0	Results.....	9
4.1	Consent corners, surface structures and tides	9
4.2	Sonar imaging.....	10
4.3	Drop camera images	15
4.4	Flora and fauna	20
5.0	Conclusions	20
5.1	Benthic habitats	20
5.2	Species and communities.....	21
5.3	Significant site	21
5.4	Mussel farming impacts	21
5.4.1	Benthic impacts.....	21
5.4.2	Productivity.....	22
5.4	Boundary adjustments, recommendations and monitoring	23
	References	24
	Appendix 1. Drop camera photographs.....	25

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1.0 Introduction

The aim of the present study was to provide biological information including substratum and habitat data in relation to: (A) the consenting of existing marine farms 8493 and 8494, and (B) a proposed extension that would join the two parent farms (Figure 1).

The existing 6.242 ha and 0.748 ha production mussel farms are located along the northern coastline of Kenepuru Sound, east of Waitaria Bay (Figure 1, Plate 1). The proposed extension area joins the two farms would add another 3.5 ha bringing the total area to 10.49 ha if approved.

The report was commissioned by PALMS Limited for the farm owner, Aroma.

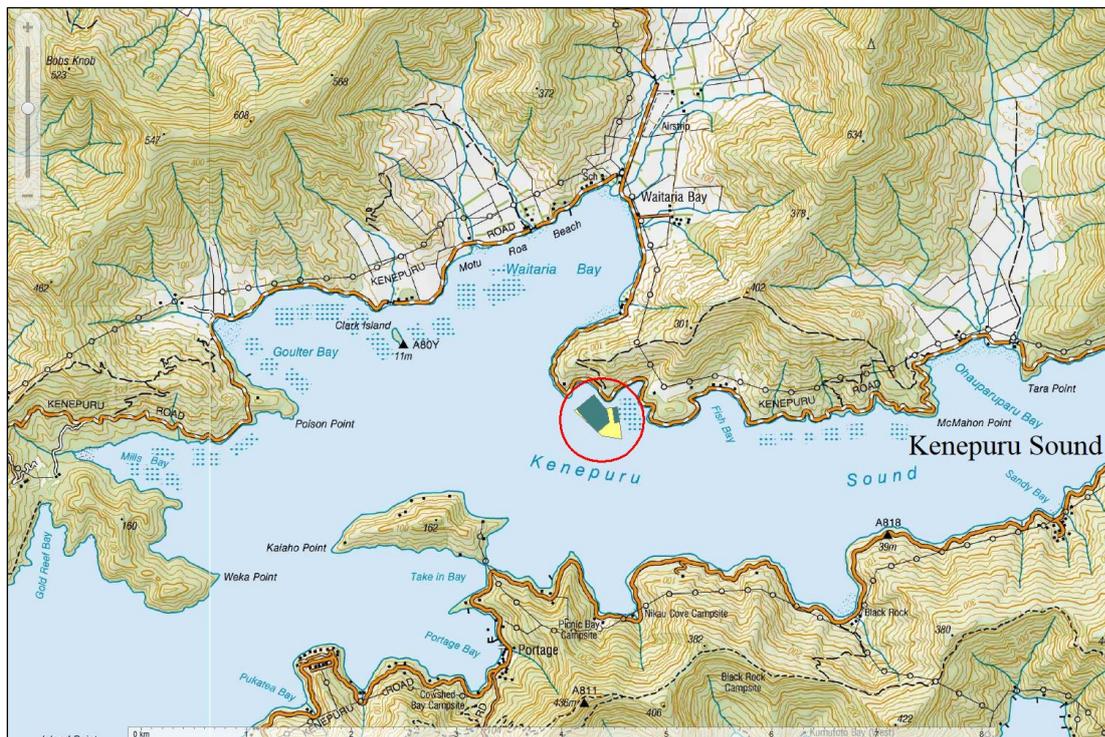


Figure 1. Location of marine farm 8493 and 8494 (teal) and proposed extension (yellow).



Plate 1a. Looking westward towards the existing lines of farms 8493 and 8494. Photo taken from a position east and alongshore of the backbones. Note: backbones in left foreground are part of farm 8495.



Plate 1b. Looking north-eastwards towards the existing lines of farms 8493 and 8494. Photo taken from an offshore and south-west of backbones.

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2.0 Background information

2.1 Study area

Waitaria Bay is located on the northern shore of Kenepuru Sound, approximately 30 km from Havelock. Fish Bay is a small bay located east of Waitaria Bay along the northern side of inner Kenepuru Sound (Figure 2). The marine farms are in a small bay between Waitaria and Fish Bays.



Figure 2. Location of the consents (teal) and extension (yellow) located between Waitaria and Fish Bays (within red circle) and other consented marine farms in the area.

2.2 Historical reports

A biological report was produced for an extension to License 93 (8493) in 2000 (Ritchie, 2000). No biological report was found in association with farm 8494.

Ritchie (2000) investigated five offshore, diver sampled transects in the 3.248 ha extension. The authors also conducted several random free swims through the proposed extension. Ritchie (2000) stated:

- The benthos was flat and depths uniform.
- Substrata was soft silt clay.
- Cushion seastars, heart urchins and a microalgal mat were common.
- The existing farm had shell material extending to 10-15 m distance from droppers.
- Redox layer under farm 40-70 mm depth and 90 mm depth outside the farm.
- No reef systems were detected in the extension.
- No trigger species or communities were detected.

3.0 Methods (present survey)

The area was investigated on October 26th and 27th, 2017. Prior to fieldwork, the consent corners were plotted onto mapping software (TUMONZ Professional). The laptop running the mapping software was linked to a Lowrance HDS-12 Gen2 with an externally mounted Lowrance Point 1 high sensitivity GPS, allowing real-time plotting of the corners of marine farm surface structures and to pinpoint drop camera stations in the field. This GPS system has a maximum error of +/- 5 m.

The corners of the existing marine farm surface structures were surveyed by positioning the survey vessel immediately adjacent to the corner floats and the position plotted. It should be noted that surface structures can move due to environmental variables such as tidal current and wind. The plot of surface structures is variable from day to day and over the duration of tidal cycles. These data should not therefore be regarded as a precise measurement of the position of surface structures, but rather an approximate position.



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3.1 Sonar imaging

Sonar investigations of the area were conducted using a Lowrance HDS-12 Gen 2 and HDS-8 Gen2 linked with a Lowrance StructureScan™ Sonar Imaging LSS-1 Module. These units provide right and left side imaging as well as DownScan Imaging™. The unit also allows real time plotting of StructureMap™ overlays onto the installed Platinum underwater chart. A Lowrance HDS 10 Gen 1 unit fitted with a high definition 1kw Airmar transducer was used to collect traditional sonar data from the site.

Prior to the collection of underwater photographs, the boundaries of both the consent area and the marine farm surface structure area were investigated using the sonar. Any bottom abnormalities such as reefs, hard substrata or abrupt changes in depth were noted for inspection using the drop camera (see section 3.2).

3.2 Drop camera stations, depths and low tide

A total of 49 drop camera photographs were collected from the farms and extension (including alongside droppers and warps) and adjacent areas outside the consent. At each drop camera station, a Sea Viewer underwater splash camera fixed to an aluminium frame was lowered to the benthos and an oblique still photograph was collected where the frame landed. On occasion, the camera was left to drift after the photograph was collected to observe the wide benthos.

The cover of benthic mussel shell from drop camera photographs were ranked as: None = no mussel shell, Low = 1-30%, Moderate = 31-50%, Moderate to High = 51-75%, and High = 76-100% cover. This assessment is displayed in Table 2 of the present report.

The location of photograph stations was selected to obtain a representative range of habitats and depths within the consent. Additional photographs were taken when any features of interest (e.g. mussel shell, reef structures, cobbles) were observed on the remote monitor on-board the survey vessel. All photographs collected during the survey have been included in Appendix 1.

Low tide was determined at three locations inshore of the consent. The survey vessel was positioned over the low water mark and the position recorded using the mapping software.

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Low tide was visually determined by using the transition between intertidal and subtidal species.

4.0 Results

4.1 Consent corners, surface structures and tides

On the 26th October the tide was high at 1.44 pm (2.77 m) and low at 6.29 pm (0.92 m).

The inshore corner depths of the consent ranged from 3.8 m to 5.3 m. Offshore boundaries of the proposed extension ranged from 5.8 m to 6 m (Table 1, Figure 3). At the time of the survey, existing surface structures consisted of two blocks of backbones occupying a total of 4.288 ha or 68.7% in farm 8493 and 0.547 ha or 73% in farm 8494 (Figure 3).

The distance between low tide and the consent boundary was measured at three positions along the adjacent shoreline. The distance from the inshore boundary to low tide position 1 was 46 m, 46 m at position 2 and 76 m at position 3 (Figure 3, Plate 2).

Table 1. Depths at the proposed consent corners, original corners and existing surface structures. Depths adjusted to datum. Coordinates = NZTM (Northing/Easting).

Type	No. & Depth (m)	Coordinates
Consent corner	1, 3.8m	1687651.57,5441160.62
Consent corner	2, 5.3m	1687765.85,5441023.57
Consent corner	3, 4.1m	1687875.78,5441038.0
Consent corner	4, 5.8m	1687916.23,5440729.68
Consent corner	5, 5.8m	1687728.54,5440758.21
Consent corner	6, 6m	1687461.86,5441002.44
Structure corner	A, 4.1m	1687873.0,5441033.9
Structure corner	B, 4.4m	1687888.6,5440914.8
Structure corner	C, 6m	1687628.3,5440838.7
Structure corner	D, 6m	1687491.1,5441002.5
Structure corner	E, 3.9m	1687652.5,5441139.6
Structure corner	F, 4.8m	1687755.5,5441006.7
Structure corner	G, 4.5m	1687766.8,5440965.2
Structure corner	H, 4.9m	1687846.3,5440901.7
Structure corner	I, 4.6m	1687825.9,5441014.1
Low tide	Low tide 1	1687695.4,5441178.9
Low tide	Low tide 2	1687780.3,5441079.0
Low tide	Low tide 3	1687835.6,5441108.8

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4.2 Sonar imaging

The sonar run along the inshore areas of the bay and the offshore areas of the farm and extension revealed rocky substrata was well inshore of the Consent and proposed extension areas (Plates 3a, 3b). Hard substrata comprising bedrock and cobble material was recorded along the length of the inshore coast, but did not extend far from shore. No rocky substrata were observed extending into the Consents or extension areas.

Mussel shell on the benthos was recorded from the sonar. Mussel shell was highest under and very close to backbones. Compared to most marine farms, the level of mussel shell recorded at this site was low. This is typical of marine farms located in very shallow water (author pers. obs.).

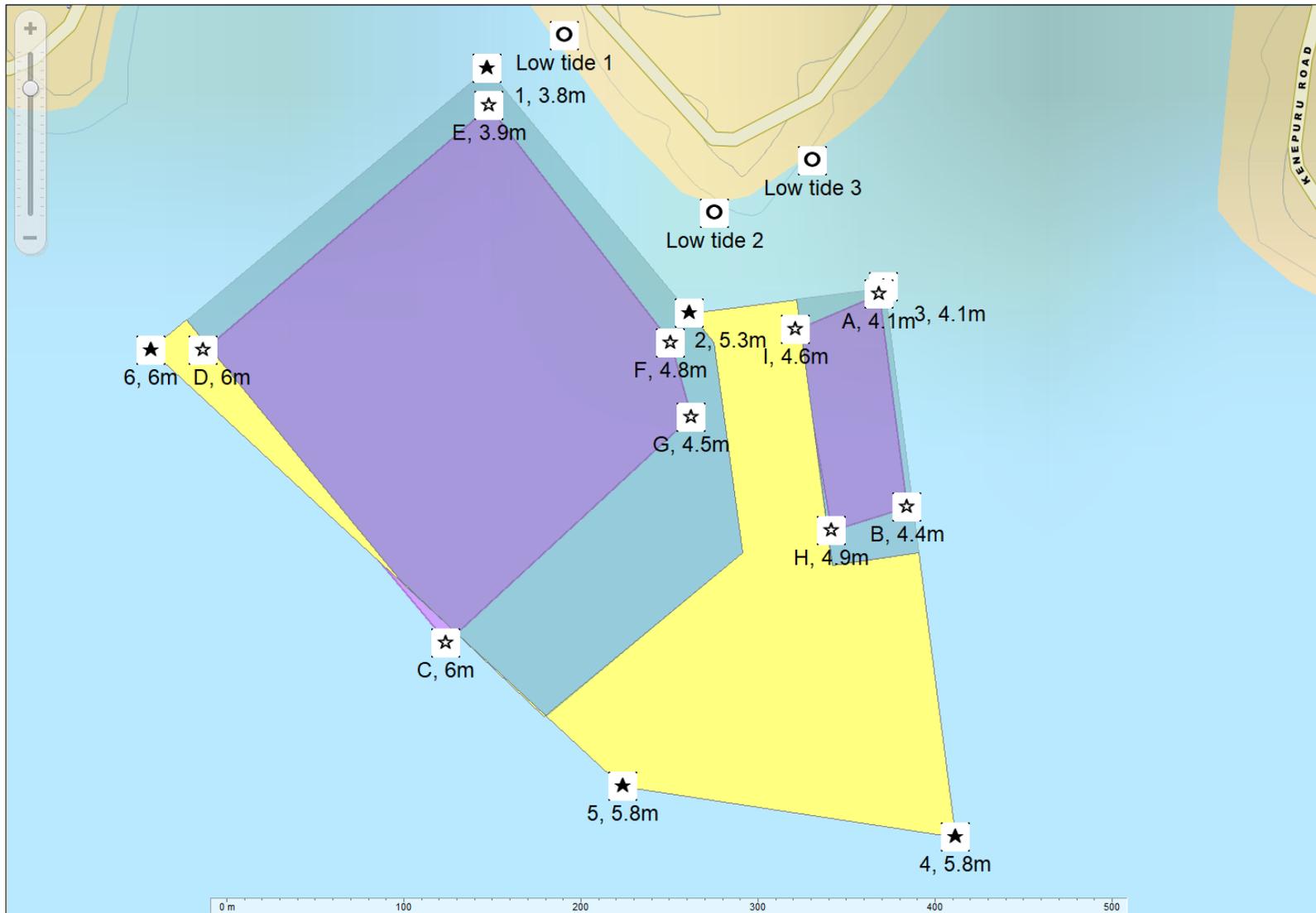


Figure 3. Location of the consents near Fish Bay (teal), corner depths and area occupied by surface structures (purple). Three adjacent low tide positions are plotted (open circles). The proposed extension area is depicted in yellow.

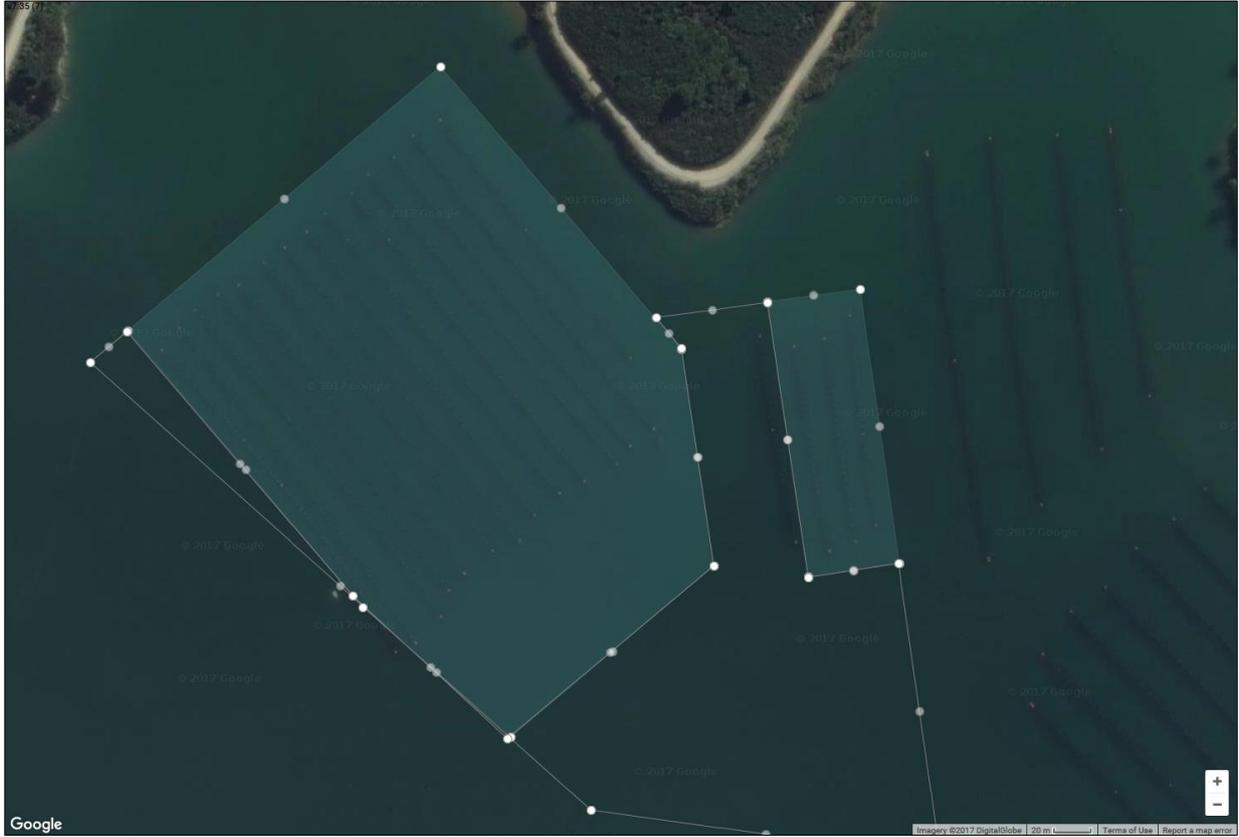


Plate 2. Consents (teal) and extension in relation to adjacent coastline.

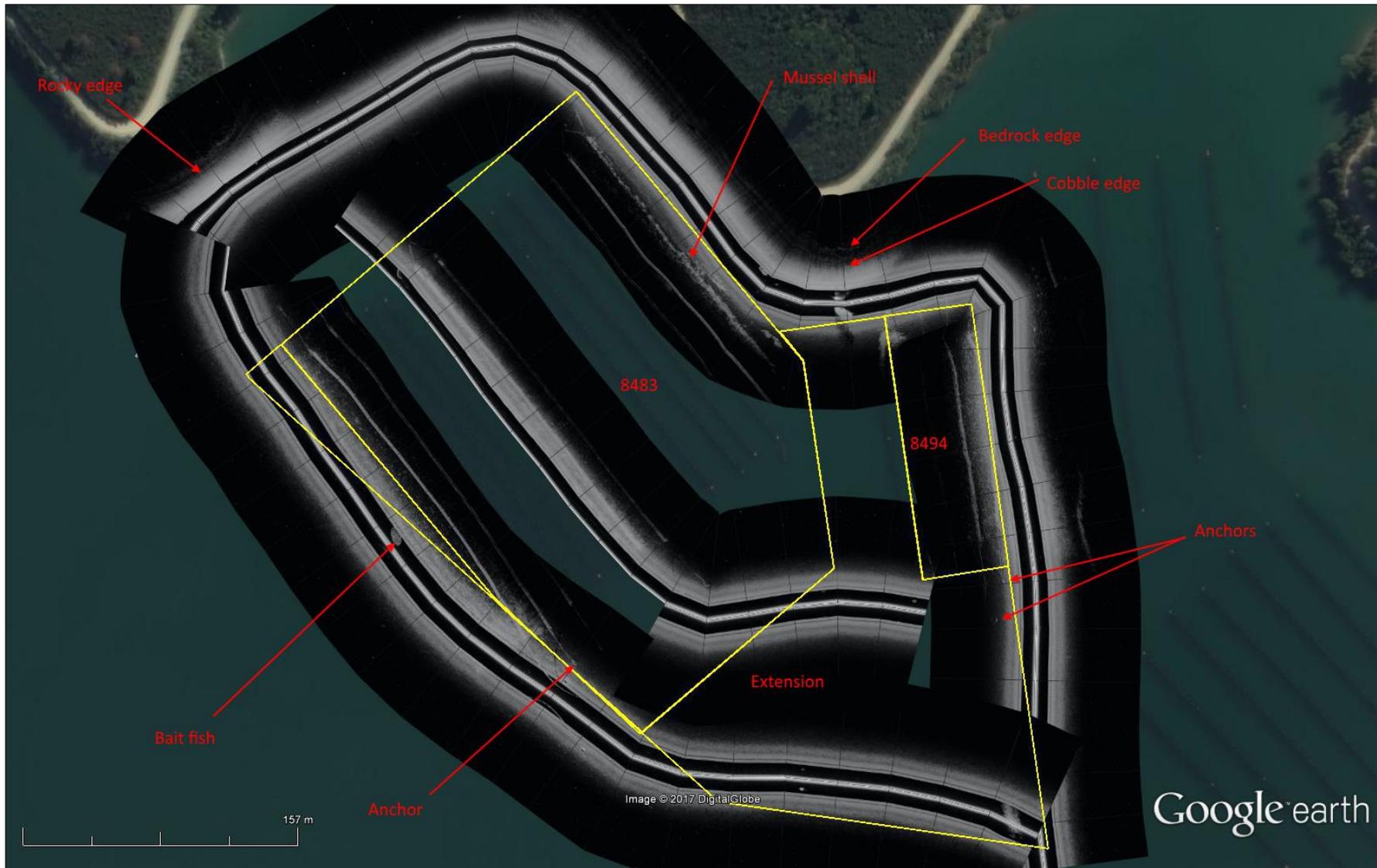


Plate 3a. Sonar transects at farm 8493 and 8494. Yellow polygon = consent boundaries and extension, white line = sonar tracks.

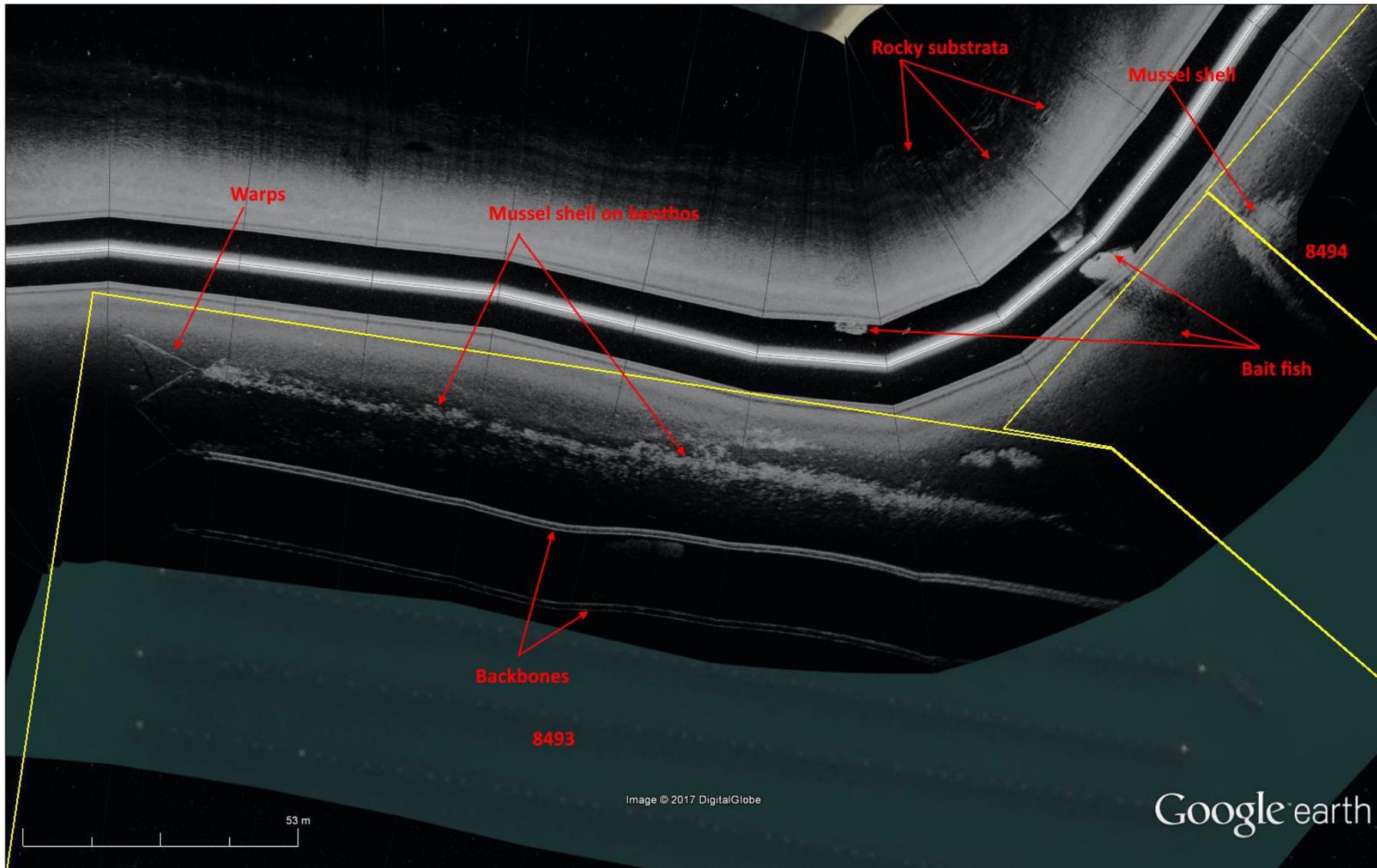


Plate 3b. Close-up of sonar tracks at farm 8493 and 8494. Yellow polygon = consent boundaries and extension, white line = sonar tracks.

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4.3 Drop camera images

Drop camera photographs were taken within the consents as well as the extension. Some photos were collected inshore of the consents (Table 2, Figure 4, Appendix 1).

Inshore of the consent

Rocky substratum was located around the bay edges (Plate 4). The sonar detected boulders and cobbles extending only a short distance from the adjacent shore (Plate 5). Shallow inshore shallow soft shores below rocky shores, were composed of silt and natural shell. By the edge of the consents, this substratum was replaced by silt and clay.

Plate 4. Cobble, silt and natural shell substratum inshore of the consent (Photo 48, 1.5 m depth). Note: filamentous algae present.



Plate 5. Silt and natural shell located immediately offshore of the rocky shore (Photo 49, 3.4 m depth).



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Inside the Consents

The consents were characterised by soft silt and clay substrata with virtually no natural shell (Plate 6).

Mussel shell debris was recorded from photos collected close to backbones (Plate 7, Table 2).

Plate 6. Silt and clay inside farm 8493 (Photo 18, 4.1 m depth)



Plate 7. Silt and clay substratum with mussel shell (Photo 4, 4.7 m depth).



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Inside the extension area

Photos collected inside the extension were characterised by silt and clay (Plate 8, Table 2). Some mussel shell was recorded from the extension from areas close to the adjacent consents (Table 2).



Plate 8. Silt and clay located in deeper areas of the consent (Photo 29, 21.3 m depth).

Benthic mussels and mussel shell

Mussel shell was observed from a total of 16 of the 31 consent photos (Plate 9, Table 2). Mussel shell debris ranged from none through to a high cover, with highest levels usually recorded under and close to backbones (Table 2, Plate 7). Overall, mussel shell levels were at the low end of the range compared to other mussel farms in the Sounds. This is consistent with farms located in shallow locations (<10 m depth).

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Table 2. Coordinates of drop camera stations showing location relative to the marine farm consent area (NZTM). Colours are: teal = within consent, yellow = extension, pink = under backbones, blue = outside consent. Depth, substratum, and mussel debris data are also listed.

No. & Depth (m)	Coordinates	Location	Substratum	Shell debris
1, 4m	1687860.2,5441041.1	Inshore of consent	silt and clay, mussel shell	Low
2, 4.8m	1687819.0,5441027.2	In proposed extension	silt and clay, mussel shell	Low
3, 5.1m	1687770.4,5441042.5	Inshore of consent	Silt and clay	
4, 4.7m	1687728.6,5441040.4	In consent, under backbones	silt and clay, mussel shell	Moderate
5, 4.1m	1687713.4,5441080.9	In consent	Silt and clay	
6, 3.8m	1687680.6,5441128.1	Inshore of consent	Silt and clay	
7, 3.7m	1687645.1,5441160.6	Alongshore of consent	Silt and clay	
8, 3.4m	1687645.2,5441115.9	In consent, under backbones	silt and clay, mussel shell	Low
9, 3.5m	1687678.3,5441074.6	In consent, under backbones	silt and clay, mussel shell	Low
10, 4.5m	1687735.1,5441005.1	In consent, under backbones	silt and clay, drift algae	
11, 4.5m	1687762.7,5440978.0	In consent, under warps	Silt and clay	
12, 4.7m	1687753.8,5440944.9	In consent, under warps	silt and clay, mussel shell	Low
13, 4.5m	1687735.5,5440977.7	In consent, under backbones	Silt and clay	
14, 4.3m	1687703.1,5441022.6	In consent, under backbones	silt and clay, mussel shell	Low
15, 3.8m	1687659.4,5441076.0	In consent, under backbones	silt and clay, mussel shell	Low
16, 3.8m	1687615.6,5441104.8	In consent, under backbones	silt and clay, mussel shell	Low
17, 3.8m	1687590.4,5441063.3	In consent, under backbones	Silt and clay	
18, 4.1m	1687624.6,5441020.9	In consent, under backbones	Silt and clay	
19, 4.4m	1687644.9,5440995.9	In consent, under backbones	Silt and clay	
20, 5m	1687686.4,5440941.6	In consent, under backbones	Silt and clay	
21, 5.2m	1687646.9,5440867.0	In consent, under backbones	Silt and clay	
22, 5.1m	1687613.8,5440913.4	In consent, under backbones	silt and clay, mussel shell	Low
23, 5m	1687566.2,5440978.1	In consent, under backbones	Silt and clay	
24, 5.3m	1687519.5,5441029.7	In consent, under warps	Silt and clay	
25, 5.5m	1687505.8,5440998.1	In consent, under backbones	Silt and clay	
26, 5.6m	1687555.7,5440938.9	In consent, under backbones	silt and clay, mussel shell	Moderate
27, 5.7m	1687605.0,5440873.7	In consent, under backbones	silt and clay, mussel shell	Low
28, 5.9m	1687619.2,5440849.9	In consent, under backbones	Silt and clay	
29, 5.9m	1687563.4,5440913.2	In consent	silt and clay, mussel shell	Low
30, 5.2m	1687893.8,5440781.5	In proposed extension	Silt and clay	
31, 4.9m	1687885.0,5440848.0	In proposed extension	Silt and clay	
32, 4.4m	1687873.9,5440904.7	In consent, under warps	silt and clay, mussel shell	Moderate
33, 4.1m	1687879.9,5440958.4	In consent, under backbones	Silt and clay	
34, 4.1m	1687858.0,5441012.0	In consent, under backbones	silt and clay, mussel shell	Moderate to high
35, 4.5m	1687818.9,5441009.0	In proposed extension	silt and clay, mussel shell	Low
36, 4.3m	1687831.6,5440960.0	In proposed extension	silt and clay, mussel shell	High
37, 4.9m	1687862.3,5440895.1	In consent, under warps	silt and clay, mussel shell	Low
38, 5.5m	1687810.2,5440771.6	In proposed extension	Unknown	
39, 5.7m	1687724.5,5440801.3	In proposed extension	Silt and clay	
40, 5.7m	1687675.8,5440829.0	In consent, under warps	silt and clay, mussel shell	Moderate
41, 5.2m	1687818.3,5440841.8	In proposed extension	Unknown	
42, 5.3m	1687748.1,5440838.9	In proposed extension	Silt and clay	
43, 5.4m	1687704.5,5440868.3	In consent, under warps	Silt and clay	
44, 5m	1687817.1,5440897.0	In proposed extension	Silt and clay, filamentous algae	
45, 4.9m	1687768.2,5440915.2	In consent, under warps	Silt and clay	
46, 4.5m	1687801.8,5440967.1	In proposed extension	Silt and clay	
47, 5.1m	1687784.2,5441019.7	In proposed extension	Silt and clay	
48, 1.5m	1687781.0,5441063.8	Inshore of consent	Occasional cobble, silt, natural shell, Ascidiars	
49, 3.4m	1687723.9,5441104.4	Inshore of consent	Silt, natural shell	

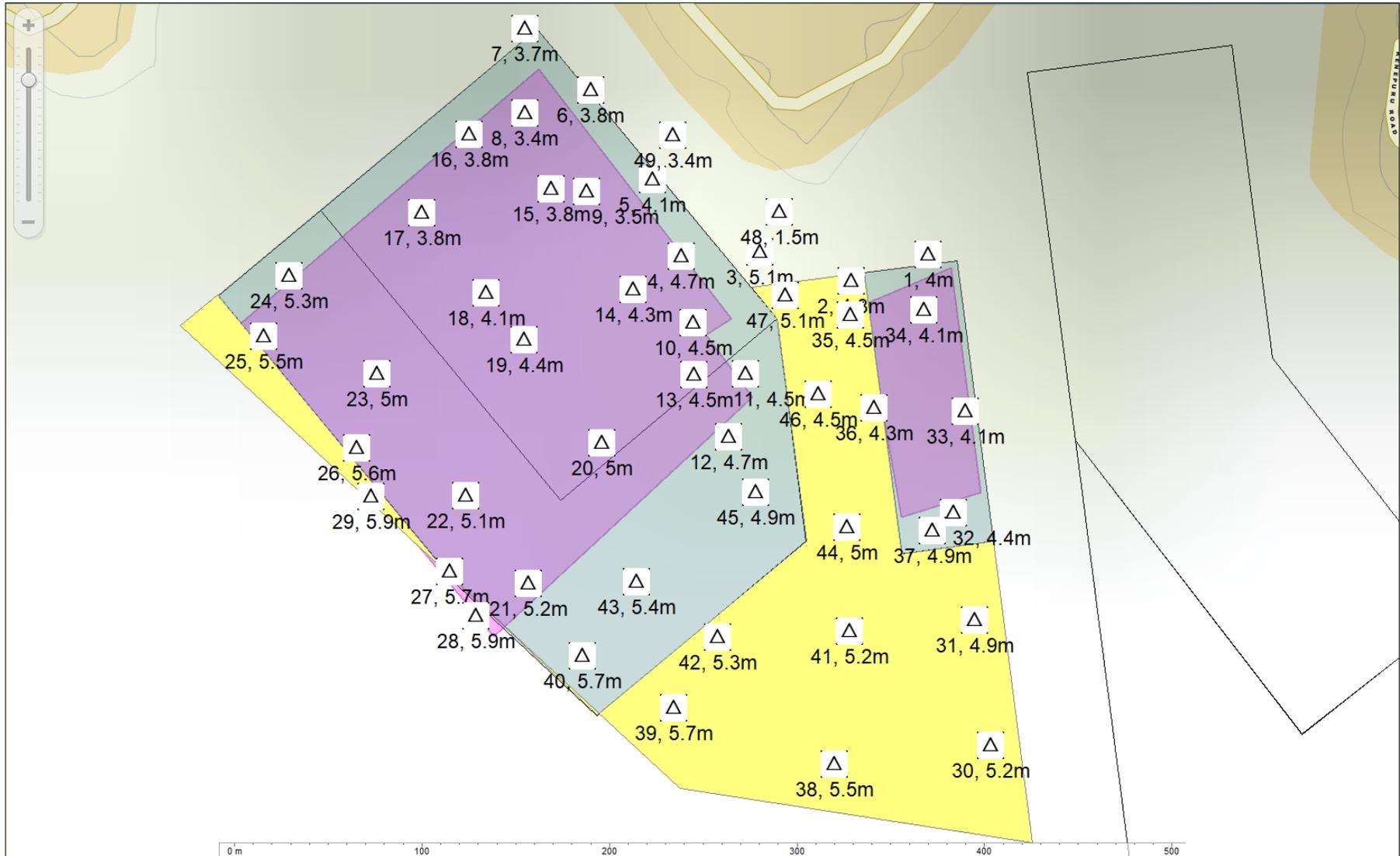


Figure 4. Location of the consents (teal), extension (yellow) and drop camera stations with depth (m).

4.4 Flora and fauna

Based on photographs, very shallow areas well inshore of the consents supported the greatest variety of surface dwelling species compared to offshore silt and clay. Inshore rocky and coarser substrata were restricted to a narrow strip around the edges of Kenepuru Sound (author pers. obs.).

Offshore areas of Kenepuru Sound are characterised by soft silt and clay. The exceptions are areas towards the main reach where currents act to increase species diversity. It is there areas where coarser sediments occur.

No horse mussels or scallops were observed from soft substratum located inside the consent. The surface dwelling fauna in the consents were dominated by cushion sea stars, sea cucumber and heart urchins. No species or communities considered biologically significant were observed under the consents or the extension area.

5.0 Conclusions

5.1 Benthic habitats

Substratum and habitat distribution relative to the consent was based on 49 drop camera stations and sonar imaging of the benthos.

The consent area was located over silt and clay substratum with virtually no natural shell (i.e. mud). This substratum is the most common subtidal habitat in the sheltered Marlborough Sounds (McKnight and Grange, 1991) and has been traditionally targeted for marine farming activities as it is considered the most suitable habitat for marine farming activities in the Marlborough Sounds.

Hard substratum was observed inshore of the consent. Unlike mud and mud and shell, rocky substratum is not traditionally considered suitable for marine farming activities as it vulnerable to smothering by shell and fine sediment and would likely no longer function as a hard substratum habitat. Further, hard substratum is usually restricted to a narrow strip around the edges of the Marlborough Sounds. In Kenepuru the inshore rocky fringe is very narrow compared to most bays in the Sounds.

5.2 Species and communities

Surface dwelling species abundance and diversity appeared highest from areas inshore of the consents where cobbles and coarser substratum were located. *Undaria* was observed growing on farm structures and occasional drift plants were observed under the farms.

Spotty were observed under and inshore of the consent. No opalfish or witch flounder were observed during the collection of drop camera photographs.

One king shag was observed feeding in outer Kenepuru Sound west of Snapper Point. To our knowledge this is the third sighting in the Kenepuru area and the first inside Kenepuru Sound. No king shag sightings exist in the inner areas of Kenepuru Sound.

5.3 Significant site

The estuarine area at the head of Kenepuru Sounds is regarded as a significant site (Davidson *et al.*, 2011). No other significant sites are known from this area. The present site is located over 5 km from the estuarine head site.

5.4 Mussel farming impacts

5.4.1 Benthic impacts

Mussel shell was observed on the seafloor under the consent. Mussel shell was observed from a total of 16 of the 31 consent photos collected. Mussel shell debris ranged from none through to high cover, with highest levels usually recorded under and close to backbones. Shell debris impact levels were within the range known for mussel farms and towards the low end of the impact range compared to other farms in the Sounds.

It is probable that the impact of continued shellfish farming at this site will result in the deposition of more shell and fine sediment under and near droppers. Farming of the extension will lead to an impact comparable to areas located under the present consents. Kenepuru is a very turbid environment and the species present are tolerant of high sediment loadings. The impact of fine sediment from the farm is unlikely to have an appreciable impact on the species present at the site.

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It is noted, that fine material is processed by bioturbators in the environment, while a proportion is resuspended during storm events and larger tides. Based on the literature and assuming the present level of activity remains relatively consistent, it is very unlikely that the surface sediments would become anoxic, especially as the site is shallow (<10 m depth) (Hartstein and Rowden, 2004; Keeley *et al.*, 2009; Davidson and Richards, 2014).

5.4.2 Productivity

Mussel farms can influence adjacent farms by slowing water flow to farms located in downstream positions. This is particularly pronounced in quiescent areas of the Sounds. However, published work by Zeldis *et al.* (2008, 2013) suggests that the major factors influencing productivity in the Marlborough Sounds relate to cyclical weather patterns in the summer (El Nino and La Nina) and river-derived nutrient inputs in winter. Slow crop cycles in some years are therefore a reflection of a weather cycle and much less about the number of farms.

There has been no data presented to show that the ecological carrying capacity of the Sounds has been reached. There is considerable evidence that shows the major drivers of the Pelorus system, for example, naturally leads to large within and between year variability. Relative to this, the impact of mussel farms appears to be material, but relatively small compared to major environmental drivers (Broekhuizen *et al.*, 2015).

Observed tidal flows through the consents were low (author pers. obs.). Broekhuizen *et al.*, (2015) reported flows are expected to be <0.1 m/s in this area. Winds are likely to be an important driver of water movement, especially during the predominant north-westerly flows down the Sound.

The site is a considerable distance from the main channel of Pelorus Sound. It is therefore likely that water residence times are relatively long compared to bays close to the channel. There are, however, few farms in the head of Kenepuru Sound. It is therefore likely that depletion will be restricted to the farm itself and the waters immediately adjacent to the farm

5.4 Boundary adjustments, recommendations and monitoring

Substratum under the consent and proposed extension is mud. This substratum is considered the most common and widespread habitat type in sheltered shores of the Marlborough Sounds. The impacts associated with mussel farming on muddy habitats characterised by silt, clay and natural shell are usually low compared to farm impacts in shallow areas where habitats may be dominated by rocky or biogenic communities.

Areas inshore of the consent were characterised by combinations of silt, natural shell and cobbles. These habitats are generally considered unsuitable for marine farming activities as they are uncommon habitats in the Sounds and would likely be altered by the activity of mussel farming. These habitats are well distance to the contents and proposed extension and unlikely to be impacted by farming activities.

Based on these considerations, no alterations to the consent area are suggested. Based on the substratum located under the proposed extension there is no biological reason why the extension area should be reduced or modified. No monitoring is suggested.

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Appendix 1. Drop camera photographs

Photo 1 (Silt and clay, mussel shell)

Photo 2 (Silt and clay, mussel shell)



Photo 3 (silt and clay)

Photo 4 (silt and clay, mussel shell)



Photo site 5 (silt and clay)

Photo site 6 (silt and clay)



Photo site 7 (silt and clay)



Photo site 8 (silt and clay, mussel shell)



Photo site 9 (silt and clay, mussel shell)



Photo site 10 (silt and clay, drift macroalgae)



Photo site 11 (silt and clay)



Photo site 12 (silt and clay, mussel shell)



Photo site 13 (silt and clay)



Photo site 14 (silt and clay, mussel shell)



Photo site 15 (silt and clay, mussel shell)



Photo site 16 (silt and clay, mussel shell)



Photo site 17 (silt and clay)



Photo site 18 (silt and clay)



Photo site 19 (silt and clay)



Photo 20 (silt and clay)



Photo site 21 (silt and clay)



Photo 22 (silt and clay, mussel shell)



Photo site 23 (silt and clay)



Photo 24 (silt and clay)



Photo site 25 (silt and clay)



Photo 26 (silt and clay, mussel shell)



Photo site 27 (silt and clay, mussel shell)



Photo 28 (silt and clay)



Photo site 29 (silt and clay, mussel shell)



Photo 30 (silt and clay)



Photo site 31 (silt and clay)



Photo 32 (silt and clay, mussel shell)



Photo site 33 (silt and clay)



Photo 34 (silt and clay, mussel shell)



Photo site 35 (silt and clay, mussel shell)



Photo 36 (silt and clay, mussel shell)



Photo site 37 (silt and clay, mussel shell)



Photo 38 (unknown)

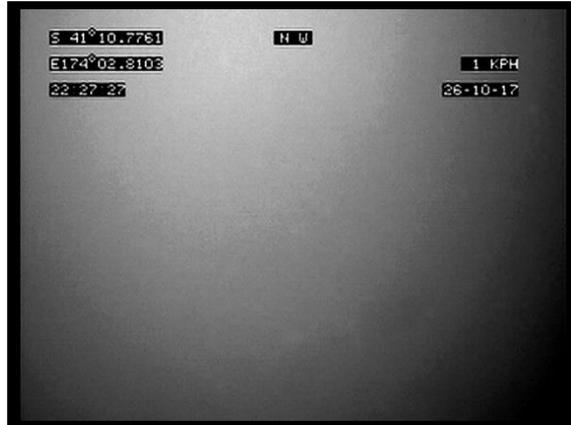


Photo site 39 (silt and clay)



Photo 40 (silt and clay, mussel shell)



Photo site 41 (unknown)



Photo 42 (silt and clay)



Photo site 43 (silt and clay)



Photo 44 (silt and clay, filamentous algae)



Photo site 45 (silt and clay)



Photo 46 (silt and clay)



Photo site 47 (silt and clay)



Photo 48 (silt, natural shell, occ. cobble)



Photo site 49 (silt, natural shell)

