

## RESOURCE CONSENT APPLICATION

U170738

## **Sanford Limited**

Brightlands Bay, Pelorus Sound

Submissions Close 5.00 pm Friday 10 November 2017

#### **Bea Gregory-5252**

From: MDC

**Sent:** Thursday, 17 August 2017 11:07 a.m.

To: RCInbox

**Subject:** Application for Resource Consent: REF170811628

**Attachments:** REF170811628.pdf

A application for a Resource Consent has been received. Application lodgement number is REF170811628.

Submission details are attached.



PO Box 443, Blenheim 7240 Tel 03 520 7400 / Fax 03 520 7496

 $\textbf{Email}\ \underline{mdc@marlborough.govt.nz} \ / \ \underline{www.marlborough.govt.nz}$ 

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Reference Number:	REF170811628	
Submitted On:	17/08/2017 11:06	
Submitted By:	Aquaculture Direct Ltd	

## Important Information

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

Please provide all details relevant to your proposal. Feel free to discuss any aspect of your proposal or the application process with Council's duty planner, who is here to help. Duty planner hours are 9.00 am to 3.00 pm Monday to Friday.

This application will be checked before formal acceptance. If the application is incomplete, we are unable to accept it for processing and it will be returned to you.

If this activity requires more than one consent type, (eg both land use and discharge) you may apply for all within this application.

## **Applicant Details**

Select as many as are applicable		
Is the applicant		
Is the applicant	• A company	
Company name	Sanford Limited	
Is the applicant		
Main applicant name	Zane Charman	
Main applicant mailing address	PO Box 13, Havelock 7150	
Main applicant email address	zcharman@sanford.co.nz	
Main contact number	5742023	
Alternative contact number	0277059290	
Is there an agent working on behalf of the applicant?	Yes	
All communication regarding the application will be sent to the agent		
Are you a business or an individual?	Business	
Company name	Aquaculture Direct Ltd	
Contact person	Bruce Cardwell	
Mailing address	PO Box 213, Blenheim 7240	
Email address	bruce@aquaculturedirect.co.nz	
Main contact number	021451284	
Alternative contact number	Not answered	
Agent reference	San/8308	

## **Application Details**

Types of resource consent applied for	Coastal Permit
Property Details	
The location to which the application relates is	NA
Brief description of the activity	To renew an existing resource consent for marine farm 8308 in Brightland Bay, outer Pelorus Sound including activities ancillary to the operation of the marine farm for a term of 20 years.
Assessment of Effects on the Environment (AEE)	

#### Assessment of Effects on the Environment (AEE)

I attach, in accordance with 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 now also have to include consideration of the provisions of the Resource Management Act 1991 and other relevant planning documents)

Please upload Assessment of Effects on the Environment

• 8308 Brightlands Bay (Sanford).pdf(4441807 bytes)

#### **Plans**

Please upload plans (e.g. site plan, elevation plans, scheme plan etc) of the locality and activity points. Describe the location in a manner that 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 the application may relate, proximity to any well known landmark, DP number, valuation number, property number

Site/location plan	No files uploaded
Scheme plan	No files uploaded
Forest harvest plan	No files uploaded
Building plans	No files uploaded
Dam design drawings	No files uploaded
Certificate of Title	

Certificate(s) of Title and legal documents No files uploaded

## Supplementary Forms

Please indicate which supplementary forms you are adding

Do you wish to upload any technical reports to be included in the

## **Technical Reports**

Geotechnical report

application by the relevant Resource Management Plan, Act or regulations?	Yes
Benthic report	• 8308 Brightlands Bay (Sanford).pdf(4441807 bytes)
Cultural effects assessment	No files uploaded
Dam construction report	No files uploaded
DSI	No files unloaded

DSI	No files uploaded
Ecology report	No files uploaded
Economic report(s)	No files uploaded
Engineering report	No files uploaded
Erosion and sediment management plan	No files uploaded

No files uploaded

Landscape report No files uploaded

PSI	No files uploaded
RAP	No files uploaded
Wastewater report	No files uploaded
Any other report not covered in the list above	<ul> <li>8308 Locality Map.pdf(2849164 bytes)</li> <li>8308 Renewal Layout Plan.pdf(321472 bytes)</li> <li>8308 Renewal Site Plan.pdf(471017 bytes)</li> </ul>

## Written Approvals

Please provide the names and addresses of the owner and occupier of the land (other than the applicant)

ΝΙΔ

Please attach any written approval(s) that may have been obtained from **No files uploaded** 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 why you have not below

Brief reason for not consulting with neighbours

Refer to AEE

### Other Details

Are additional resource consents required in relation to this proposal?

No

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 record applicant name and either property number or consent type as a reference.

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). 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.

Do you require a GST receipt for a bank payment?	Yes
Please make invoice out to	Applicant
The application lodgement fee	Will be paid by applicant
Notes	Not answered
I confirm that the information provided in this application and the attachments are accurate	Yes
Authorised by (your full name)	Bruce Raymond Cardwell

#### **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 made corrections to your details, please contact Council.

## ASSESSMENT OF ENVIRONMENTAL EFFECTS FOR A COASTAL PERMIT OCCUPANCY AND DISTURBANCE OF THE SEABED

# APPLICATION BY SANFORD LIMITED TO RENEW EXISTING CONSENT FOR MARINE FARM SITE 8308 IN BRIGHTLANDS, PELORUS SOUND, MARLBOROUGH

#### 1.0 INTRODUCTION – THE APPLICANT

Sanford Limited has applied to renew the existing resource consent MPE794 (U030153) and MFL425 for marine farm site 8308 (total 5.92ha) for the purpose of farming Green shell mussels (Perna canaliculus) using conventional long line methods. (Refer attached layout diagrams illustrating the site.)

MFL425 (parent farm) was granted in August 1989 and expires 31 December 2024. MPE794 (U030153) (extension) was granted in May 2006 and expires 31 August 2017.

MFL 425 (parent farm) is assessed as controlled activity in the current Marlborough Sounds Resource Management Plan.

MPE 794 (extension) is assessed as discretionary activity in the current Marlborough Sounds Resource Management Plan.

A part of the inshore area of the consent has been identified in the benthic report as unsuitable for marine farm structures. One mussel line currently sits inside this area and will be removed and installed on the outside on the northern block within the consented area. The plan shows the hatched area as being unsuitable for structures.

The application is for a continuation of the activities currently consented at the site. There is a small change to the structure plan with the removal of one line on the southern block to reduce the total line numbers from 13 to 12. No changes to the activities are proposed.

The site lies within the boundary of the CMZ2, an area which marine farming activity is a discretionary activity.

Sanford's history extends over 100 years. Sanford is a large and long established fishing company devoted entirely to the harvesting, farming, processing, storage and marketing of quality seafoods and aquaculture products, with a focus on the clear waters of New Zealand. Sanford employs approximately 1,430 employees throughout the various regions in which they

operate, Auckland, Coromandel, Tauranga, Nelson, Havelock, Timaru, Waitaki, Kaitangata, Bluff, Stewart Island & Melbourne, 230 of these employees are based in the Havelock.

The Company supports the sustainable utilisation of seafood from New Zealand's unique marine environment, and in other waters in which the company operates.

Sanford is responding to existing and emerging environmental issues by seeking to improve performance standards in all its operations and through active participation in industry environmental initiatives and forums. Sanford, Havelock was the winner of the marine section of the 2017 Cawthron Marlborough Environment Awards for a range of new environmental innovations within the marine farming industry.

Environmental performance improvement is being achieved by;

- The implementation of Environmental Management Systems (EMS) incorporating compliance with ISO 14001 standards. All shore based and on board processing facilities are certified to ISO 14001 standard.
- Continually investigating the implementation of methods to improve the Company's ecoefficiency in terms of farmed and harvested seafood, energy, water, packaging and waste
  management.
- Protecting and enhancing the natural environment through active management programs
  to prevent events such as oil spills from occurring, and formal contingency planning in the
  event they do. We also undertake active maintenance of marine areas nearby to where
  we operate.

The Applicant adheres to the 'Greenshell Mussel Industry Environmental Code of Practice' and its successor, the Environment Management Framework and is an active participant of the Marine Farming Association's Environmental Programme.

This programme covers the activities of marine farmers "on water" activities. This Programme includes being an active participant in beach clean ups and adhering to the following Codes of Practice:

- 'Marine Farming Operating Standards Marlborough Sounds, Tasman and Golden Bays'.
- 'Code of Practice to avoid, remedy or mitigate noise from marine farming activities in the Marlborough Sounds, Golden Bay and Tasman Bay, on other users and residents'.
- 'Reducing Pollution and Emissions from Marine Farming 'On Water' Activities'.
- 'Reducing Waste taken to Landfill from Marine Farming 'On water' Activities'.

As this is a 'like for like' Application by an existing permit holder, the Application should be processed under section 165ZH. The Applicant's adherence to the codes of practice mentioned above, and its commitment to environmental programmes and activities, along with its compliance with the conditions of the existing Consent, are conduct in the Applicant's favour in terms of section 165ZJ(1).

#### 2.0 INTRODUCTION – THE APPLICATION

**2.1 Size:** The site is 5.920ha.

**2.2 Structures:** The site dimensions will be: inshore boundary 430 metres long, outer boundary 430 metres, northern boundary 114 metres long and southern boundary 150 metres long (refer attached site plan).

There will be a total of 12 longlines (refer attached layout diagram).

**2.3 Species:** It is proposed to farm and harvest Green shell mussels (Perna canaliculus) using conventional long line methods.

The application is for a continuation of the activities currently consented at the site. No changes to the activities are proposed.

#### 3.0 PERMITTED ACTIVITIES

Consent is also sought to allow the existing seabed anchoring devices to remain (and be replaced as required), to harvest marine farming product from the marine farm (including the discharging of coastal seawater and discharge of biodegradable and organic waste matter) and all other activities that are ancillary to the operation on site 8308.

The movement of vessels is a permitted activity: s27 Marine and Coastal Area (Takutai Moana) Act 2011. This right includes anything reasonably incidental to vessel movement (s27(2)).

#### 4.0 TERMS OF CONSENT

MFL425 expires 31 December 2024.

MPE794 (U030153) expires 31 August 2017.

The Applicant seeks to combine both MFL 425 and MPE 794 into one consent for a 20-year term expiring in 2037..

#### 5.0 THE SITE - LOCATION

(Davidson report 860 dated July 2017)

"Brightlands Bay is a small, north-facing bay on the southern shore of Tawhitinui Reach, Pelorus Sound. Brightlands Bay has a coastline length of approximately 3 km and covers an area of sea of approximately 88.5 ha. The mouth of Brightlands Bay is approximately 1.5 km wide and the bay is roughly 1 km long"

The farm sits alongside other farms on the eastern side of Brightlands Bay. The nearest marine farms to 8308 are the adjacent farms to the south 8307 and 8309 to the north.

The adjacent land to the south and east of the farm is Rural 1. There is one residence in the Bay, 500 metres to the South of the farm.

The site lies within the boundary of Coastal Marine Zone 2 (CMZ2).

#### 6.0 THE SITE - DIMENSIONS

The site dimensions have been described above are as per the layout plans attached. The depth of the water at each of the site corners is 26 metres (NW), 26 metres (NE), 15 metres (SE), and 24 metres (SW).

The application includes 12 long lines, each being approximately 149.50 metres long.

There are currently 12 lines installed and operating at the site that grow Greenshell mussels.

The site layout is attached to the application.

The warp lengths are 40.5 metres from each end of the backbone (see line layout diagram for individual longline lengths). The warp ratio is 2:1.

The farm is identified as being onsite as shown on the Marlborough District Council website.

#### 7.0 THE PRESENT ENVIRONMENT

#### 7.1 The Marine Environment

In July 2017 Mr RJ Davidson, of Davidson Environmental Ltd, undertook a biological study of the ecology of the marine area of site 8308 (Report 860, attached).

The Report indicates that the impact of the existing activity is similar to other mussel farming activities in the Pelorus Sound. In particular, the report states the following;

#### 5.1 Benthic habitats

Substratum and habitat distribution relative to the consent renewal area was based on drop camera stations and sonar imaging of the benthos. The consent area was mostly located over silt and clay substratum. Cobbles were recorded along the inshore area of the consent at depths up to approximately 15 m. Most cobble and small boulder habitat was observed inshore of the consent. Silt and clay substratum is widespread the Marlborough Sounds. Mud (i.e. silt and clay) is the most

common subtidal habitat in the sheltered Marlborough Sounds and has been traditionally targeted by marine farming activities. This substratum type is considered suitable for consideration for marine farming activities in the Marlborough Sounds. Cobble substratum is not traditionally considered suitable for marine farming activities as it usually is smothered by shell and likely no longer functions as a hard substratum habitat.

#### 5.2 Species and communities

Species abundance and diversity was highest from inshore, shallow rocky areas compared to offshore, deeper silt substratum under and around the growing structures. Encrusting species observed from rocky areas appeared representative of a relatively sheltered shore.

#### 5.3.1 Benthic impacts

Benthic mussel shell was recorded from 21 of the 40 drop camera photos collected under and near backbones. Shell debris impact levels were within the range known for mussel farms in the Marlborough Sounds and towards the low to moderate impact range apart from directly under droppers where shell did occasionally reach high levels. 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. 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).

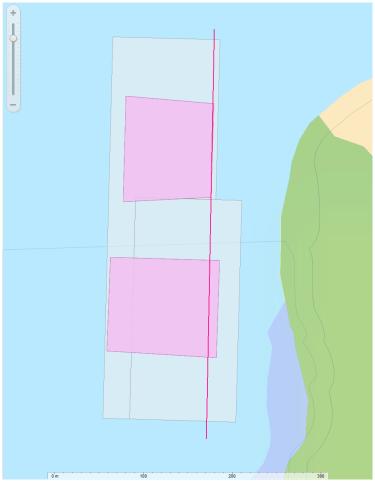
#### 5.4 Boundary adjustments, recommendations and monitoring

Davidson (1996) and Brown (1999) both suggested that the farm be located further distance from shore than it is presently positioned. Their reasons were primarily related to the presence of rocky substrata located close to shore. The present survey confirmed the presence of cobble, boulder and rock substrata within and immediately adjacent to the consent. It is recommended that the inshore consent boundary be relocated further from shore (Figure 6). During the present survey, substratum located immediately offshore of the consent were investigated and proved suitable for consideration for marine farming activities, should the farm owner wish to apply for an offshore extension to balance the inshore loss.

For the remaining area of the consent there were no biological values detected that would preclude the proposed consent for continuing to be used for mussel farming. The substratum is the most common and widespread habitat type in sheltered shore of the Marlborough Sounds and the sheltered outer Sounds. The impacts for mussel farming on muddy habitats characterised by silt, clay and natural shell are usually low compared to farm impacts in shallow, habitats dominated by rocky or biogenic communities. Farm structures in this area are therefore situated over habitats traditionally considered suitable for the activity of farming mussels. No other reductions to the present farm are therefore recommended on ecological grounds.

Based on the substratum located under structures and the impact levels of the existing activity, no monitoring is suggested.

The report also indicates that the impact of the current activities is in line with expectations of the environmental impacts of mussel farming. In addition, the current study supports the Ministry of Fisheries assessment which was used to assess the sustainability of the farm and its impact on fishing and fishery resources.



Davidson report Figure 6. Existing consent (grey), marine farm surface structures (pink) and suggested inshore consent boundary line (red).

Sanford accepts the recommendation of the report that prevents and structures being placed inshore of the red line. The line currently inshore of the southern block will be removed and placed on the seaward side of the northern block.

#### 7.2 The Land Environment

The site lies in Brightlands Bay, within Tawhitinui Reach, Pelorus Sound. (Refer attached locality map.)

The adjacent land is regenerating bush.

The coastline adjacent consists of steep hill slopes with short to moderately high coastal cliffs.

The beach is dominated by hard rock and boulders, although small beaches have formed along the coastline in this area.

#### 8.0 NAVIGATION MATTERS

#### 8.1 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 farm is beyond 50 metres from the mean low water mark.

#### 8.2 Headlands

There are no headlands immediately adjacent to the site.

#### 8.3 Navigational Routes (Formal/Informal)

The shoreline in which the farm sits is not on a normal navigation route; however, vessels that wish to navigate within the area can go through the farm, either inside or outside of the site.

The farm does not impede vessel movements along the coastline or access to the adjacent land.

#### 8.4 Anchorages or Mooring Areas (Formal/Informal)

There are 5 registered moorings in Brightlands Bay to the south and south west of the site. Moorings 2101, 2102, 2103, 2104 and 2105 which are all owned by the sole resident in the Bay.

The site does not impede access to these moorings.

#### 8.5 Indirect Effects-Servicing vessels at site

The Applicant estimates farming and harvesting vessels will visit the site on an average of 50 - 60 days a year, for periods of 0.5 to 8 hrs to undertake farm maintenance, seeding and harvesting. The total number of hours spent on these activities is estimated to be 180 - 190 hrs annually.

#### 8.6 Water Ski Lanes

There are no formal water ski lanes in the vicinity.

#### 8.7 Sub-Marine Cables

There are no sub-marine cables in the immediate vicinity of the farm.

#### 9.0 AESTHETIC

#### 9.1 Land Zoned for Residential Use or Proximity to Residences

The land to the south and south east of the farm is zoned Rural 1.

There are no residences directly adjacent to the site. There is one resident in Brightlands Bay approximately 500 metres south from the site.

#### 9.2 Scenic Value

The area has not been identified within the Marlborough Sounds Resource Management Plan as being an area of outstanding natural landscape value. The area has not been described as an area of outstanding landscape, outstanding very high or high coastal natural character in the proposed Plan.

The effect of the marine farm on the adjacent area will not have any effect on the flora and fauna of this area.

#### 10.0 ECOLOGICAL VALUE

There are no areas of ecological value identified in the Marlborough Sounds Resource Management Plan for the site.

There are no areas of ecological significance in the proposed Plan.

The effect of the marine farm on the adjacent area will not have an effect on the flora and fauna of this area.

#### 11.0 RECREATIONAL VALUE

The visual impact of the marine farm will not change.

Access to the coast for recreationalists is maintained.

#### 12.0 HISTORICAL, TRADITIONAL AND CULTURAL VALUES

No sites of archaeological, historical or traditional value are known by the Applicant to be present in the area.

In preparing this Application, the Applicant has had regard to the Te Tau Ihu Statutory Acknowledgments and has reviewed the Statements of Association for each iwi. The Applicant understands that this Application will be notified to Iwi with statutory acknowledgements in the area and will discuss the Application further with Iwi representatives.

#### 13.0 COMMERCIAL AND RECREATIONAL FISHING

Matters impacting on commercial and recreational fishing are controlled by the Ministry of Primary Industry's (MPI) Undue Adverse Effects test (UAE).

#### 13.1 Commercial Fishing

Commercial fishing is not known to occur in Brightlands Bay, but may occur offshore. The farm will not interfere with commercial fishing operations. No artificial feed or attractants are added.

#### 13.2 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 reef fish and other fish species.

#### 14.0 VISUAL EFFECTS OF THE FARM

Visual effects will remain the same as they exist at the present. The farm structures presently consist of 12 long lines of 149.5 metres in length containing black mussel buoys ranging between approximately 4 and 60 per line.

At the end of each longline an orange buoy will be displayed and an orange buoy will be displayed in the middle of each of the seaward most and landward most longlines.

A yellow light, radar reflector and a band of reflective tape will be displayed on the seaward corners and radar reflectors and a band of reflective tape will be displayed on the landward corners or as requested on the lighting plan provided by the Harbour Master.

#### 15.0 EFFECTS ON WATER QUALITY AND ECOLOGY

Water quality of the area is suitable for mussel farming. The site relies on water quality to enable the process of mussel farming to flourish. The site 8308 has a good capacity for mixing of water with regular tidal currents, wind and wave action.

The effect on the ecology of the site from the existing activity is attached in the Davidson Environmental Limited Report 860.

No specific sites of marine ecological significance have been identified in Brightlands Bay in the 'Ecological Significant Marine Sites in Marlborough New Zealand' published by Rob Davidson and others in 2011.

#### 16.0 EFFECTS ON PRODUCTIVITY

Water quality is unlikely to be a problem for mussel farming in Brightlands Bay. The continuing activity itself is unlikely to create any significant detrimental effects on water quality. *Exert from Davidson Report* (Benthic Report 860, refer attached).

#### 5.3.2 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).

Tidal flows in Brightlands Bay are expected to be low; however, winds are likely to be an important driver of water movement in this area, especially during the predominant north-westerly flows. Brightlands Bay is near the main channel of Pelorus Sound. It is therefore likely that water residence times are short (i.e. water turnover time is short) compared to bays further distant where turnover times are often >8 days (e.g. Hallam Cove)."

#### 17.0 THE BENTHIC ENVIRONMENT

In terms of the benthic environment, the ecology of this area has been documented in Davidson Environmental Ltd Report 860 (refer to 7.1 above).

No changes to the site boundaries or the layout are necessary to mitigate any adverse impacts on the seabed.

#### 18.0 ALIENATION OF PUBLIC SPACE

The general area of this part of the Pelorus Sound has been utilised by marine farmers in excess of 35 years. Recreation and commercial boat owners are aware of marine farms in this area and all vessels have the opportunity to use the site and transit through it. The spacing between the long lines provides opportunity for access by vessels wanting to transit the site.

#### 19.0 HARVESTING

As part of this Application, the Applicant seeks to continue harvesting mussel crops. The right to navigate to and from the farm, and to anchor, moor and load crop is preserved by section 27 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 (refer 8.5).

#### 20.0 ON SHORE FACILITIES

The applicant already has onshore marine farm facilities based in Havelock on land leased from Port Marlborough Limited. Farm work is undertaken by the applicant's staff based out of Havelock.

The direct number of staff employed by the applicant, based in Havelock, is 70 FTE. The mussels are processed in Havelock where they provide a critical part of the production to maintain processing to the factory which employees 163 FTE.

#### 21.0 VALUE OF INVESTMENT

As part of this Application to renew site 8308, 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 section 165ZH(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 section 104(2A).

The existing site was purchased by the applicant has been held by the applicant since 2003. Over that time the applicant has expended significantly on the maintenance and upkeep of the farm. The cost of seeding the farm per cycle (18 months) is \$70,000 - \$90,000. The repairs and maintenance is \$18,000 - \$28,000 per cycle.

The farm produces approximately 200 tonnes per annum (\$1050/ Green Weight Tonne (GWT)) and after processing the final ½ shell product would be sold on the export market at approximately \$400,000. Approximately 95% of Sanford mussel products are exported. All lines are restocked after harvest to achieve 200 GWT/per annum harvest.

The applicant leases berthage and land in Havelock from Port Marlborough Ltd.

The mussels are processed in Havelock where they provide a critical part of the production to maintain processing to the factory which employees 163 FTE.

#### 22.0 PART II RESOURCE MANAGEMENT ACT ISSUES

#### **22.1** Section 5

Section 5 of the Resource Management Act 1991 is given effect through the New Zealand Coastal Policy Statement, Marlborough Regional Policy Statement and Marlborough Sounds Resource Management Plan.

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 generation and job creation in the Marlborough Sounds and in the Nelson/Marlborough region.

The majority of mussels produced from the site will be exported, thereby generating foreign exchange earnings for the country. Applications such as this enable the sustainable use of the marine environment.

#### 22.2 **Section 6**

Matters of national importance have been assessed under the requirements of the Marlborough Sounds Resource Management Plan.

The Proposal recognises:

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 the New Zealand Coastal Policy Statement and is considered further below.

b. The protection of outstanding natural features and landscapes from inappropriate Subdivision, use, and development:

The area has not been identified within the Marlborough Sounds Resource Management Plan as being an area of outstanding natural landscape value. The area has not been described as an area of outstanding landscape, outstanding very high or high coastal natural character in the proposed Plan. The effects of the Application on the landscape will be the same as the present Consent and any effects will not impact on the values which contribute to the landscape.

c. The protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna:

The adjacent vegetation next to the farm is regenerating bush.

d. The maintenance and enhancement of public access to and 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 Applicant is unaware of any new historical sites on land nearby identified since the last Application. This will be confirmed through consultation with Iwi.

#### 22.3 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:
- (b) The efficient use and development of natural and physical resources:
- (c) The maintenance and enhancement of amenity values:
- (d) Intrinsic values of ecosystems:
- (e) Recognition and protection of the heritage values of the sites, buildings, place, or areas:
- *(f) Maintenance and enhancement of quality of the environment:*
- (g) Any finite characteristics of natural and physical resources:
- (h) The protection of the habitat of trout and salmon.

Matters under Section 7 (a - g) have been considered earlier in the original proposal. This Application is not anticipated to have any additional effects over and above what already exists. Section (h) is not relevant to this Application.

#### 23.0 NEW ZEALAND COASTAL POLICY STATEMENT 2010 (NZCPS)

The New Zealand Coastal Policy Statement 2010 is of general relevance to this Application and all policies have been considered in the development of the proposal.

Policies of specific relevance are considered below.

#### 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 recognises 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 acknowledgments in the area of the application site. Those acknowledgements have been considered during the preparation of this application, as outlined above.

The iwi management plans of Ngāti Kōata and Te Ātiawa o Te Waka-a-Māui have been reviewed. No areas of conflict have been identified.

There are no taiāpure or mahinga mātaitai 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 if this is requested.

#### 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 part of the existing built environment, so is in accordance with subpart 1(f), as continuation of the farm would not result in a change in the present character of Brightlands 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 Policy 6 is particularly relevant. Mussel farming clearly has a functional need to be located in the coastal marine area. The farm 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, recognising that relevant considerations 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 any available assessments of national and regional economic benefits; and
- (c) Ensuring that development in the coastal environment does not make water quality unfit for aquaculture activities in areas approved for that purpose.

The Application will enable the continuation of 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 longlines are located over mud habitat and avoids any reef areas or any other areas of significant biodiversity. There will be no adverse modified effects on indigenous biodiversity. An additional hatched area includes a 'no structures area' to protect the inshore habitat.

#### 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.

The area has not been identified within the Marlborough Sounds Resource Management Plan as being an area of outstanding natural landscape value. The area has not been described as an area of outstanding landscape, outstanding very high or high coastal natural character in the proposed Plan.

#### 23.6 Policy 15

Policy 15(a) provides for the avoidance of adverse effects of activities on outstanding natural features and outstanding natural 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.

There will be no further impact on the landscape than those 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 active and passive recreation.

The visual impact of the marine farm will not change. Access to the coast for recreationalists is maintained.

There are 5 registered moorings in the vicinity of the site. The site does not impede access to these moorings. There are no formal water ski lanes. 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, discussed above, 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.

#### Conclusion

The effects of the Application on the landscape will be no more than minor and will result in no change to the existing status. The effects are not likely to impact on the values which contribute to the landscape.

#### 24.0 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 Marlborough Sounds Resource Management Plan contains a number of provisions that are relevant this application. An assessment of the application against the requirements of the 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.

#### 25.0 CONSULTATION

A letter has been sent to all Iwi listed below identifying the site prior to the application being submitted.

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 7250	(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

Initial consultation has taken place with the resident in Brightlands Bay – Graeme Beal.

#### 26.0 CONCLUSION

The Applicant considers that the renewal of site 8308 is appropriate, thereby allowing the continued farming of Greenshell mussels at the site.

The site is in that part of the Pelorus Sound where aquaculture has long been present and has no more than a minor impact on other values in the area.

## Appendix A: Marlborough Regional Policy Statement – Policy Analysis

Objective	Policy	Assessment
5.3.2:	5.3.5: Avoid, remedy or mitigate the reduction of	No artificial feed or attractants are added.
That water quality in the coastal marine area be	coastal water quality by contaminants arising	No Chemicals, antibiotics or other theraputants
maintained at a level which provides for the	from activities occurring within the coastal marine	added
sustainable management of the marine	area.	Any discharges of organic matter associated with
ecosystem		harvesting will be transitory.
5.3.10:	5.3.11: Avoid, remedy or mitigate habitat	Any disruption associated with the existing
The natural species diversity and integrity of	disruption arising from activities occurring within	mooring of the farm is minor in scale and
marine habitats be maintained or enhanced	the coastal marine area.	transitory. The seabed is already in a modified
		state due to terrestrial run off.
7.1.9:	7.1.10:	The marine farm is consistent with the current
To enable present and future generations to	To enable appropriate type, scale and location of	Policy and the designated consented area is
provide for their wellbeing by allowing use,	activities by:	within a bay with other marine farms.
development and protection of resources	<ul> <li>clustering activities with similar effects;</li> </ul>	
provided any adverse effects of activities are	<ul> <li>ensuring activities reflect the character and</li> </ul>	
avoided, remedied or mitigated.	facilities available in the communities in	
	which they are located;	
	<ul> <li>promoting the creation and maintenance of</li> </ul>	
	buffer zones (such as stream banks or	
	'greenbelts');	
	<ul> <li>locating activities with noxious elements in</li> </ul>	
	areas where adverse environmental effects	
	can be avoided, remedied or mitigated.	
	7.1.12:	The marine farm is located within the consented
	To ensure that no undue barriers are placed on	area which marine farming is a permitted activity.
	the establishment of new activities (including new	There will be no change in permitted activity or
	primary production species) provided the life	permitted structures when the consent is
	supporting capacity of air, water, soil and	renewed.
	ecosystems is safeguarded and any adverse	
	environmental effects are avoided, remedied or	
	mitigated.	

7.2.7	7.2.8:	The marine farm is within a bay with other marine
The subdivision use and development, of the	Ensure the appropriate subdivision, use and	farms. The marine farm's activity is biologically
coastal environment, in a sustainable way.	development of the coastal environment.	sustainable.
	7.2.10(a) - (d)	The marine farm is located within the consented area which is permitted for marine farming.
7.3.2:	7.3.3:	No sites of cultural or heritage significance have
Buildings, sites, trees and locations identified as having significant cultural or heritage value are retained for the continued benefit of the community.	Protect identified significant cultural and heritage features	been identified on the area of the application site
8.1.2: The maintenance and enhancement of the	8.1.3:	There will be no further impact on the landscape
visual character of indigenous, working and built	Avoid, remedy or mitigate the damage of	than those already permitted under the current
landscapes.	identified outstanding landscape features arising	consent. The effects of the application on the
	from the effects of excavation, disturbance of	landscape will be minor and the effects are not
	vegetation, or erection of structures.	likely to impact on the values which contribute to
		the landscape. The farm is well managed and
		complies with the Greenshell Mussel
		Environmental Code of Practice.
	8.1.5:	The marine farm will have no additional impact on
	Promote enhancement of the nature and	landscape values.
	character of indigenous, working, and built	
	landscapes by all activities which use land and	
	water.	
	8.1.6:	The site will have no additional impact on the
	Preserve the natural character of the coastal environment.	natural character of the coastal environment.

Appendix B: Marlborough Sounds Resource Management Plan – Policy Analysis

Objective	Policy	Assessment
Ch 2, 2.2, Obj 1: The preservation	Policy 1.1: Avoid the adverse effects of subdivision,	This application is set in an area which is regenerating bush.
of the natural character of the	use or development within those areas of the	The marine farm is within a bay with other marine farms.
coastal environment, wetlands,	coastal environment and freshwater bodies which	
lakes, and rivers and their margins	are predominantly in their natural state and have	
and the protection of them from	natural character which has not been compromised.	
inappropriate subdivision, use and	Policy 1.2: Appropriate use and development will be	
development.	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.	
	Policy 1.3: To consider the effects on those qualities,	These matters have been considered in the assessment of
	elements and features which contribute to natural	environmental effects.
	character, including:	
	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.	
	Policy 1.4: In assessing the actual or potential	, , ,
	effects of subdivision, use or development on	components of these policies which impact natural character
	natural character of the coastal and freshwater	values.
	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.	

	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.	Any residual impact on natural character will naturally rehabilitate on removal of the farm.
	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.	The effects of this application are not unknown and are discussed elsewhere in the assessment of environmental effects. A precautionary approach is not justified.
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	Policy 1.2: Avoid, remedy or mitigate the adverse effects of land and water use on areas of significant ecological value.	The effect of the marine farm on the adjacent area will not have any effect on the flora and fauna of this area.
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	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.	The effects of the application on the landscape will be the same as the current permitted activity and the effects are not likely to impact on the values which contribute to the landscape.
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.	Policies 1.1-1.5	In preparing this application, the applicant has had regard to the Statutory Acknowledgments and has reviewed the statements of association for each iwi. No areas of conflict have been identified by the applicant. An initial letter has been sent to all Iwi identifying the site prior to the application being submitted
		The applicant understands there are no known wahi tapu, taiapure, mataitai or other areas of significance to Maori in the vicinity of the application.

Policy 1.2: Adverse effects on public access caused	There are no additional adverse effects on public access
by the erection of structures, marine farms, works or	caused by the marine farm.
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.	
Policy 1.3: To prevent the erection of structures and	There are no additional adverse effects on public access
marine farms that restrict public access in the	caused by the marine farm.
coastal marine area where it is subjected to high	
public usage.	
Policy 1.8: Public access to and along the coastal	There are no additional adverse effects on public access
marine area should be maintained and enhanced	caused by the marine farm.
except where it is necessary to [circumstances do	
not apply].	
Policy 1.1: Avoid, remedy and mitigate the adverse	The way in which adverse effects on the stated values will be
effects of use and development of resources in the	avoided, remedied and mitigated is addressed elsewhere in
coastal marine area on any of the following:	the assessment of environmental effects. Overall, the
a) Conservation and ecological values;	proposal is consistent with this policy.
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;	
l) Public health and safety; k) Recreation values; and	
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	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. 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.  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].  Policy 1.1: Avoid, remedy and mitigate the adverse effects of use and development of resources in the coastal marine area on any of the following:  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;

	Dollar 1 2. Advarsa offacts of subdivision was an	The marine form is within a her with ather marine forms
	Policy 1.2: Adverse effects of subdivision, use or development in the coastal environment should as	The marine farm is within a bay with other marine farms.  There are no additional adverse effects on the coastal
	1	
	far as practicable be avoided. Where complete	environment from this farm. The navigational lighting
	avoidance is not practicable, the adverse effects	requirements will not change from the existing consent.
	should be mitigated and provision made for	
	remedying those effects to the extent practicable.	
	Policy 1.3: Exclusive occupation of the coastal	Consistent with other marine farms in the Marlborough
	marine area or occupation which effectively	Sounds, exclusive occupation of the consent area is not
	excludes the public will only be allowed to the	sought, other than for the area physically occupied by the
	extent reasonably necessary to carry out the activity.	lines and anchoring devices.
	Policy 1.6: Ensure recreational interests retain a	Not applicable
	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.	
	Policy 1.7: Avoid adverse effects from the	Exclusive occupation of the consent area is not sought. There
	occupation of coastal space in or around recognised	are 5 moorings located in the Bay. The farm does not impede
	casual mooring areas.	the navigation to this mooring.
		o o
	Policy 1.12: To enable a range of activities in	Policy 1.12 enables marine farming in appropriate places. Site
	appropriate places in the waters of the Sounds	8308 is consented for marine farming, there are other marine
	including marine farming, tourism and recreation.	farms consented in the bay.
	, ,	,
	Policy 1.13: Enable the renewal as controlled	NA
	activities of marine farms authorised by applications	
	made prior to 1 August 1996 as controlled activities,	
	apart from exceptions in Appendix D2 in the Plan.	
Ch 9, 9.3.2, Obj 1: Management of	Policies 1.1 to 1.11	This application is not anticipated to have any impact on
the effects of activities so that		shellfish quality.
and ancord of detirities so that		5

water quality in the coastal marine area is at a level which enables the gathering or cultivating of shellfish for human consumption (Class SG).		
Ch 9, 9.4.1, Obj 1:	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].	There will be no additional disturbances of the seabed.
Ch 9, 9.4A.1, Obj 1:	n/a	These policies are no longer relevant due to abolition of AMAs through legislation.
Ch 19, 19.3, Obj 1: Safe, efficient and sustainably managed water transport systems in a manner that avoids, remedies and mitigates adverse effects.	Policy 1.1: Avoid, remedy or mitigate the adverse effects of activities and structures on navigation and safety, within the coastal marine area.	There have been no reported navigational incidences in the bay. There will no changes to the existing consent conditions regarding the navigational aids placed on the farm.
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.	Policy 1.1: Avoid, remedy and mitigate community disturbance, disruption or interference by noise within coastal, rural, and urban areas.	There is one resident in the Bay. A servicing vessel is estimated to spend approximately 180-190 hours per annum maintaining and harvesting the lines per year. The applicant complies with the 'Code of Practice to avoid, remedy or mitigate noise from marine farming activities in the Marlborough Sounds, Golden Bay and Tasman Bay on other users and residents'

## Appendix C: Analysis of Consistency with the Proposed Marlborough Environment Plan (Volume 1)

MEP Provision	Evaluation
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.  [RPS]	The applicant has prepared the application in a manner that takes into account the spiritual and cultural values of Marlborough's tangata whenua iwi.  Recognition is given to Māori culture and traditions and confirmation from Iwi is sought to ensure the proposal does not affect these values.
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. [RPS]	See sections 12 and 22 AEE.
Objective 3.5 – Resource management decision making processes that give particular consideration to the cultural and spiritual values of Marlborough's tangata whenua iwi. [RPS]	The applicant has given particular consideration to the matters in objective 3.5, as discussed the AEE at sections 12 and 22, in order to assist decision makers.
Policy 3.1.1 – Management of natural and physical resources in Marlborough will be carried out in a manner that:  (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.  (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;  (c) promotes awareness and understanding of the Marlborough District Council's obligations under the Resource Management Act 1991 regarding the principles of the Treaty of Waitangi/Te Tiriti o Waitangi among Council decision makers, staff and the community;  (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  (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.	See above.

MEP Provision	Evaluation
[RPS]	
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.  [RPS]	See above.
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:  (a) the ability for tangata whenua to exercise kaitiakitanga is maintained; (b) mauri is maintained or improved where degraded, particularly in relation to fresh and coastal waters, land and air; (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; (d) for waterbodies, the elements of physical health to be assessed are: 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; v. wilderness and natural character; vi. productive capacity; and vii. fitness to support human use, including cultural uses. (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. [RPS]	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 Davidson Environmental in the report annexed to this application.

MEP Provision	Evaluation
Policy 3.1.5 – Ensure iwi management plans are taken into account in resource management decision making processes. [RPS]	The applicant has reviewed the Iwi management plans of Ngāti Kōata and Te Ātiawa o Te Waka-a-Māui. No areas of conflict have been identified.
Objective 4.1 – Marlborough's primary production sector and tourism sector continue to be successful and thrive whilst ensuring the sustainability of natural resources.  [RPS]	The application will support the mussel farming industry in Marlborough and provide an opportunity for that industry to grow. The proposal ensures the sustainability of natural resources, as the adverse effects of mussel farming at the site are likely to be limited, as per the Davidson Environmental report. 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.
Policy 4.1.2 – Enable sustainable use of natural resources in the Marlborough environment. [RPS]	As above at Objective 4.1.
Policy 4.1.3 – Maintain and enhance the quality of natural resources. [RPS]	The proposal will have no more than minor effects on the quality of the natural resources at the site, and those effects are reversible upon removal of the farms.
Objective 4.3 – The maintenance and enhancement of the visual, ecological and physical qualities that contribute to the character of the Marlborough Sounds.  [RPS]	The ecological character of the site will be maintained (see Davidson Environmental report). The application site is located over a habitat of sandy mud, typical of similar areas in the Sounds. The effects of low intensity farming are not likely to be significant. The relatively strong currents at the site are sufficient to prevent the accumulation of organic deposition.
	The existing character of the area is a working landscape. It is well-suited to the proposed activity due to the existing level of modification from farming and aquaculture. The proposed renewal is unlikely to adversely affect the existing values of the area.

MEP Provision	Evaluation
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.  [RPS]	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.
Policy 4.3.3 – Provide direction on the appropriateness of resource use activities in the Marlborough Sounds environment.  [RPS]	The aquaculture provisions of the MEP have yet to be notified. The proposed site is zoned CMZ2 under the operative MSRMP, which suggests that aquaculture is appropriate in the area.
Policy 4.3.4 – Enhance the qualities and values that contribute to the unique and iconic character of the Marlborough Sounds.  [RPS]	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.
Policy 4.3.5 – Recognise that the Marlborough Sounds is a dynamic environment [RPS]	The applicant recognises that the Sounds is a dynamic environment. The appropriateness of the farm can be reassessed by future generations in the context of the future environment of the area through the resource consenting process.
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 inherent right to occupy and use the coastal marine area, and requires 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 for applications that meet the statutory requirements.

MEP Provision	Evaluation
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.
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 has insufficient information on coastal occupancy charges to understand the implications.
Policy 5.10.5 – The Marlborough District Council will waive the need for coastal occupancy charges for the following: (b) monitoring equipment; [C]	Davidson Environmental has not indicated that ongoing monitoring is necessary at this site.
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]	Refer Policy 5.10.4
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.  [RPS, R, C, D]	The farm will not adversely compromise the existing values of the area and is appropriate development
Policy 6.2.1 – Avoid the adverse effects of subdivision, use or development on areas of the coastal environment with outstanding natural character values  [RPS, R, C, D]	N/A –site is not identified in the MEP has having outstanding natural character values.
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. [RPS, R, C, D]	The proposal avoids significant adverse effects. There will be no damage, loss or destruction. The effects are reversible upon removal of the farm.

MEP Provision	Evaluation
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.  [RPS, R, C, D]	The area is not classified as having high natural character in the MEP. There will be no change in the degree of the biological components of natural character.
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.  [RPS, R, C, D]	See above and AEE sections 9 and 22.3.
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.  [RPS, R, C, D]	The proposal is less likely to have an adverse effect on natural character, given existing development in the area.
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.  [RPS, R, C, D]	The effects are not of a scale to justify an enhancement programme.
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:  (a) the effect of allowing more of the same or similar activity;  (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  (c) the combined effects from all activities in the coastal or freshwater environment in the locality.  [RPS, R, C, D]	There are existing aquaculture activities in the area and the farm has been operating for a number of years. There are unlikely to be cumulative effects issues.
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 area is not mapped as ONFL (although these maps are subject to challenge through the consultation process on the MEP).

MEP Provision	Evaluation
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.  [R, C, D]	See above and sections 9
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:  (a) using a non-regulatory approach as the means of maintaining and enhancing landscape values in areas of this landscape zoned as Coastal Living;  (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  [C, D]	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, the application must be assessed against the rules applying under the operative MSRMP. This has been done in a separate policy analysis table, at Appendix B.
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.  [R, C, D]	See above.
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. [R, C, D]	See above.
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:  (a) In respect of structures:  (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	The applicant will minimise the scale, height and placement of structures to minimise intrusion of built form into the landscape. 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.

MEP Provision	Evaluation
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 (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]	Existing farming and aquaculture already occurs within the embayment and general area. 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 7.2.7. [R, C, D]	See above.
Policy 8.3.1 – Manage the effects of subdivision, use or development in the coastal environment by: (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.	There are no areas of ecological significance in the MEP.  The effect of the marine farm on the adjacent area will not have an effect on the flora and fauna of this area.
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:  (a) avoided where it is a significant site in the context of Policy 8.1.1; and  (b) avoided, remedied or mitigated where indigenous biodiversity values have not been assessed as being significant in terms of Policy 8.1.1	According to the Davidson Environmental report, the proposed farm is consistent with policy 8.3.2(b).

MEP Provision	Evaluation
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:  [(a) – (t)]	See AEE and Davidson Environmental report.
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:  (a) the offset will only compensate for residual adverse effects that cannot otherwise be avoided, remedied or mitigated;  (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;  (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;  (d) there is a strong likelihood that the offsets will be achieved in perpetuity;  (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  (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.	Biodiversity offsetting is not justified in this case.
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. [RPS, R, C, D]	See sections 8, 9, 11, 13, 14 and 18 of the AEE.
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:  (a) high priority waterbodies for public access on the Wairau Plain and in close proximity to Picton, Waikawa, Havelock, Renwick, Seddon, Ward and Okiwi Bay;  (b) coastal marine area, particularly in and near Picton, Waikawa and Havelock, Kaiuma Bay, Queen Charlotte Sound (including Tory Channel), Port Underwood, Pelorus Sound, Mahau Sound, Mahikipawa Arm and Croiselles Harbour, Rarangi to the Wairau River mouth, Wairau Lagoons, Marfells Beach and Ward Beach	N/A

MEP Provision	Evaluation
[RPS]	
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:  (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.  [RPS, C, D]	See above. The farm will not prevent access to areas or sites of cultural and historic significance in the area.
Policy 9.1.5 – Acknowledge the importance New Zealander's place on the ability to have free and generally unrestricted access to the coast. [RPS, C, D]	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.
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.  [RPS, C]	
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. [RPS, C]	There are no jetties in the vicinity of the site.
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:  (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;  (b) the need for the activity/structure to be located in the coastal marine area and why it	The structures have a functional need to be located in the coastal marine area. The public will have access through and around the site. Access to the site is by boat. 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

MEP Provision	Evaluation
cannot be located elsewhere;  (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;  (e) in the coastal marine area, whether exclusive rights of occupation are being sought as part of the application;  (f) for the Marlborough Sounds, whether there is practical road access to the site of the application;  (g) how public access around or over any structure sought as part of an application is to be provided for;  (h) whether the impact on public access is temporary or permanent and whether there is any alternative public access available; and  (i) whether public access is able to be restricted in accordance with Policies 9.2.1 and 9.2.2.	mussels, 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.
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. [RPS, C, D]	The applicant recognises the value of open space and has designed the site layout with this in mind.
Objective 10.1 – Retain and protect heritage resources that contribute to the character of Marlborough. [RPS]	See section 12 AEE.
Policy 10.1.3 – Identify and provide appropriate protection to Marlborough's heritage resources, including:  (a) historic buildings (or parts of buildings), places and sites; (b) heritage trees; (c) places of significance to Marlborough's tangata whenua iwi; (d) archaeological sites; and (e) monuments and plaques.  [RPS, C, D]	See above

MEP Provision	Evaluation
Chapter 13 objectives and policies.	N/A – Chapter 13 expressly states that it "does not contain provisions managing marine farming."
Objective 15.1a – Maintain and where necessary enhance water quality in Marlborough's rivers, lakes, wetlands, aquifers and coastal waters, so that:  (a) the mauri of wai is protected; (b) water quality at beaches is suitable for contact recreation; (c) people can use the coast, rivers, lakes and wetlands for food gathering, cultural, commercial and other purposes; (f) coastal waters support healthy ecosystems.  [RPS, R, C]	Mussel farming will not have an adverse effect on water quality, and may even enhance water quality.
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:  (a) Coastal waters: protection of marine ecosystems; potential for contact recreation and food gathering/marine farming; and for cultural and aesthetic purposes;  [RPS, R, C]	Aquaculture requires excellent water quality. The proposed farm will not have an adverse effect on water quality.
Policy 15.1.9 – Enable point source discharge of contaminants or water to water where the discharge will not result:  (a) in any of the following adverse effects beyond the zone of reasonable mixing: (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 (c) in the flooding of or damage to another person's property.  [R, C]	Discharge from harvesting will not result in any of the specified adverse effects.

MEP Provision	Evaluation
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:  (a) the nature of the contaminants; (b) the relative sensitivity of the receiving environment; (c) the financial implications and effects on the environment of each option when compared with the other options; and (d) the current state of technical knowledge and the likelihood that each option can be successfully applied.  [RPS, R, C]	See Davidson Environmental report. 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 lines and structures.
15.1.11 – When considering any discharge permit application for the discharge of contaminants to water, regard will be had to:  (a) the potential adverse effects of the discharge on spiritual and cultural values of Marlborough's tangata whenua iwi;  (b) the extent to which contaminants present in the discharge have been removed or reduced through treatment; and  (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.  [RPS, R, C]	See above  Discharge during harvest is temporary in nature and sedimentation soon reverts to background levels, consistent with policy 15.1.11(c).
<ul> <li>15.1.12 – After considering Policies 15.1.10 and 15.1.11, approve discharge permit applications to discharge contaminants into water where: <ul> <li>(a) the discharge complies with the water quality classification standards set for the waterbody, after reasonable mixing; or</li> <li>(b) in the case of non-compliance with the water quality classification standards set for the waterbody:</li> <li>(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</li> <li>(ii) the degree of non-compliance will not give rise to significant adverse effects.</li> </ul> </li> <li>[RPS, R, C]</li> </ul>	Water discharged during harvesting will comply with SG standards in Appendix 5.

MEP Provision	Evaluation
Policy 15.1.16 – The duration of any new discharge permit will be either:	This policy is inconsistent with s 123A of the Resource
(a) Up to a maximum of 15 years for discharges into waterbodies or coastal waters where th	e   Management Act, which provides for a minimum 20 year term
discharge will comply with water quality classification standards for the waterbody or coasta	of for coastal permits authorising aquaculture activities, unless a
waters;	shorter period is required to ensure that adverse effects on the
(c) no more than five years where the existing discharge will not comply with water qualit	environment are adequately managed. This high threshold is
classification standards for the waterbody or coastal waters.	not met in these circumstances.
With the exception of regionally significant infrastructure, no discharge permit will be grante	d It is illogical to allow for a marine farming permit for 20 years,
subsequent to the one granted under (c), if the discharge still does not meet the water qualit	and restrict a discharge permit for harvesting to 15 years.
classification standards for the waterbody or coastal waters.	The applicant is seeking 20 year resource consent. The AEE
[R, C]	suggests that this term in appropriate in these circumstances.



#### **Davidson Environmental Limited**

# Biological report for the relicensing of marine farm 8308, Brightlands Bay, Tawhitinui Reach

Research, survey and monitoring report number 860

A report prepared for: Sanford Limited C/o Aquaculture Direct Radio House 1 Main St, Blenheim 7201

July 2017

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July 2017



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#### 1.0 Introduction

The aim of the present study was to provide biological information for the proposed relicensing of marine farm site 8308. The farm is located along the eastern coastline of Brightlands Bay, Tawhitinui Reach (Figure 1, Plate 1). The study describes the benthic substrata and habitats associated with the 5.9 ha mussel farm.

This report was commissioned by Aquaculture Direct for the farm owner, Sanford Limited.

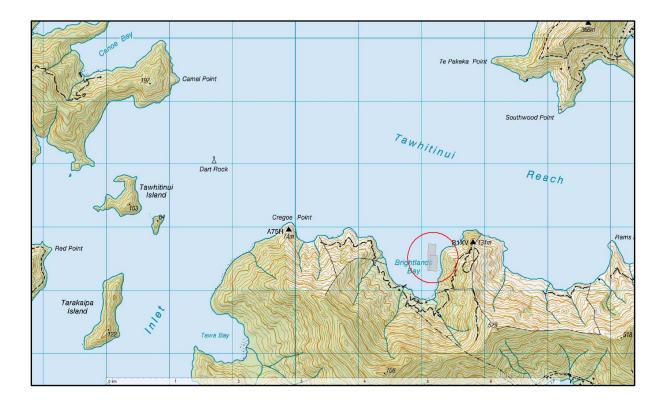


Figure 1. Location of marine farm 8308 in Brightlands Bay (red circle).



Plate 1. Looking southeast towards the existing lines of farm 8308. Photo taken from central Brightlands Bay.



### 2.0 Background information

#### 2.1 Study area

Brightlands Bay is a small, north-facing bay on the southern shore of Tawhitinui Reach, Pelorus Sound. Brightlands Bay has a coastline length of approximately 3 km and covers an area of sea of approximately 88.5 ha. The mouth of Brightlands Bay is approximately 1.5 km wide and the bay is roughly 1 km long (Figure 2).

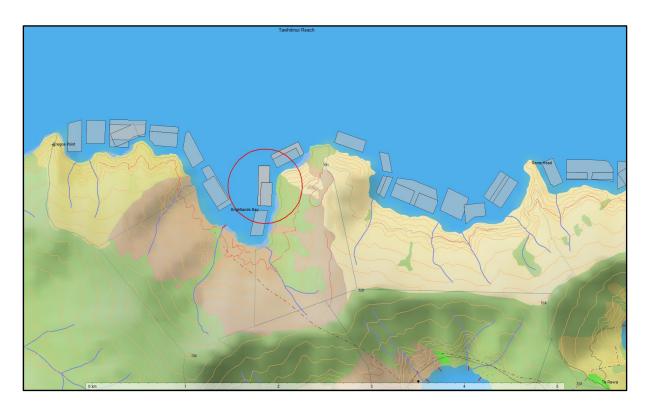


Figure 2. Location of consent renewal in Brightlands Bay (within red circle) and other consented marine farms along the coastline of Tawhitinui Reach (grey).



#### 2.2 Historical reports

Two historical biological reports relating to site 8308 were found during a search of available literature.

Davidson (1996) produced a report for the original 3.57 ha consent application, U960553. Davidson stated:

"Results from depth soundings and the free swim across the inshore boundary of the proposed farm area suggested that:

- 1) substrata present were bedrock, cobbles, pebbles, small boulders and various combinations of fine sand, broken shell and dead whole shell and silt;
- 2) cobble substrata was recorded to approximately 60 m distance offshore in the northern parts of the proposed marine farm area;
- 3) tubeworm mounds (*Galeolaria hystrix*) were observed outside the boundaries of the proposed marine farm;
- 4) small outcropping rock structures were located during the depth soundings and were investigated at transect 1.

The hard shore zone was dominated by bedrock, small and medium boulders, cobbles and pebbles. Hard shores terminated at 60 m distance from shore at transect 1 and 30 m from shore at transect 2.

The inshore hard substratum was replaced by a zone of relatively clean broken shell and fine sand at transect 2 and shell and fine sand/silt at transect 1. The broken shell/fine sand zone at transect 2 was colonised by a bed of an unidentified species of bivalve. By 50 m distance from shore and depth of 6 m, the benthos graded into dead and broken shell overlying a base of silt and fine sand.



At both transects silt and shell substratum dominated the benthos to 140 m to 160 m distance from shore. Beyond these distances, the bottom was dominated by silt and clay.

Most soft bottom substrata and communities located within the proposed marine farm area were dominated by dead and broken shell overlying silt and clay sediments or further from shore, silts and clays. A low variety of species in low abundance were observed from these soft bottom habitats."

Davidson and Brown (1999) produced a report for a proposed 3.45 ha extension to the original parent farm. The author reported the following from his site survey:

"The shore was initially dominated by boulder and cobble substrata that extended offshore to 75 m distance from low water at transect 1 and 45 m distance at transect 2. A relatively low percentage cover of narrow and flap jack algae was recorded around the sublittoral fringe. At transect 2, a well sorted broken shell and fine sand habitat was recorded offshore to 70 m distance. Offshore of 70 m distance at both transects the benthos was dominated by broken shell and silt and clay substrata."

The author recommended "the inshore boundary of the proposed extension be placed no closer to shore than 90 m distance from shore. This modification to the proposed boundaries would avoid the cobble habitat, the fish feeding habitat and provide a buffer zone between these features and the mussel farm."

# 3.0 Methods (present survey)

The area was investigated on July 4<sup>th</sup> 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 external 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.

#### 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<sup>TM</sup> Sonar Imaging LSS-1 Module. These units provide right and left side imaging as well as DownScan Imaging<sup>TM</sup>. The unit also allows real time plotting of StructureMap<sup>TM</sup> 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 40 drop camera photographs were collected from the existing parent farm and extension area, including alongside droppers and warps. 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.

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 two locations inshore of the consent. The survey vessel was positioned over the low water mark and the position recorded using the mapping software. Low tide was determined by using the transition between intertidal and subtidal species.

#### 4.0 Results

#### 4.1 Consent corners and surface structures

The inshore corner depths of the consent renewal ranged from 9.4 m to 26 m. Offshore boundaries of the consent renewal ranged from 23.6 m to 26 m (Table 1, Figure 3).

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

	No. & Depth (m)	Coordinates
Consent corner	1, 17m	1672224.5,5454542.6
Consent corner	2, 26m	1672229.5,5454722.5
Consent corner	3, 26m	1672108.7,5454725.7
Consent corner	4, 23.4m	1672097.2,5454295.9
Consent corner	5, 11m	1672247.3,5454291.9
Consent corner	6, 9.4m	1672253.7,5454541.8
Structure comer	A, 24.8m	1672222.4,5454650.6
Structure comer	B, 17.4m	1672218.8,5454544.7
Structure comer	C, 14.5m	1672228.3,5454473.4
Structure comer	D, 15.2m	1672225.3,5454364.2
Structure comer	E, 24m	1672102.1,5454371.5
Structure corner	F, 25m	1672105.8,5454476.2
Structure comer	G, 25.7m	1672119.9,5454539.8
Structure comer	H, 26.3m	1672123.5,5454658.7
Low tide	low tide 1	1672292.2,5454542.1
Low tide	low tide 2	1672307.6,5454290.2



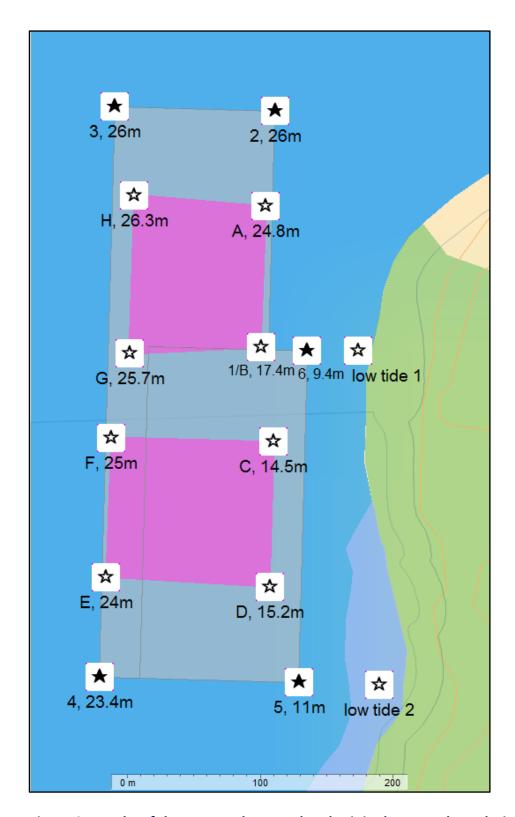


Figure 3. Depths of the proposed renewal and original consent boundaries (grey). Marine farm surface structures shown in pink.



The existing surface structures consisted of two blocks of backbones covering a total of 2.43 ha of the 5.9 ha consent.

The distance between low tide and the consent boundary was measured at two positions along the adjacent shoreline. The distance to the inshore boundary at the position of low tide 1 was 38 m and 60 m at the position of low tide 2.

#### 4.2 Sonar imaging

The sonar run along the inshore and eastern boundary of the consent revealed the area was relatively flat, with a featureless seafloor under the consent. Some mussel shell was observed by sonar on the benthos under the backbone structures.

Hard shore habitat (i.e. boulder bank) was recorded inshore of the consent (Figure 4a). Cobble material mixed with soft substrata extended further from the boulder bank edge and penetrated the consent. (Figure 4b).

Rock, boulder and cobble substrata were also identified immediately inshore of the northern farm extension (Figure 4b). Some rock material was recorded inside the consent boundary but inshore of farm structures.

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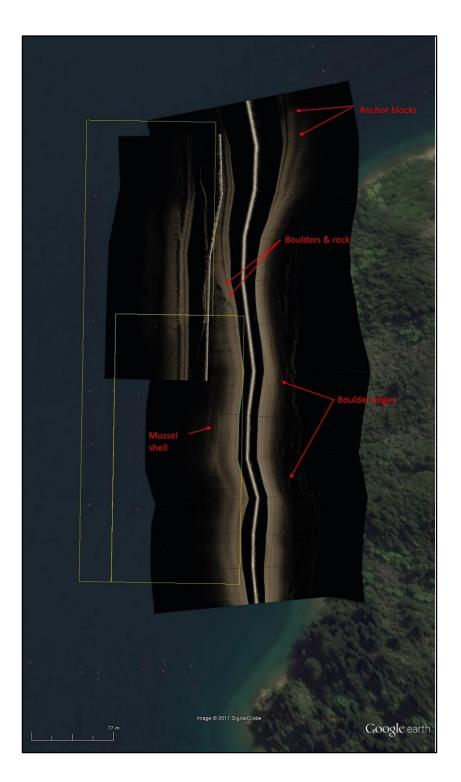


Figure 4a. Sonar transects at farm 8308. Yellow polygon = consent boundary, white line = sonar track.



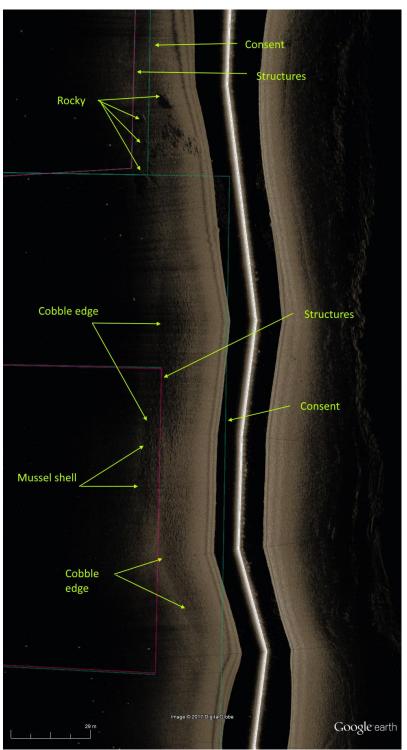


Figure 4b. Sonar transects at farm 8308. Teal lines = consent boundary, pink lines = backbones structures.



#### 4.3 Drop camera images

Drop camera photographs taken throughout the existing consent, offshore, and inshore areas identified benthic substratum habitats (Table 2, Figures 5a/b, Appendix 1).

#### Inshore of the consent

Inshore benthos was mostly characterised by silt with a component of natural broken shell. Two drop camera stations showed mussel shell debris on silt benthos (Plate 3).

Patches of cobbles and small boulders on silt and natural broken shell substrata were also observed inshore of the consent. No mussel shell debris was recorded from these cobble or boulder habitats (Plate 4).



Plate 3. Silt substratum with mussel shell debris inshore of the consent boundary (photo 26, 24.9 m depth).

Plate 4. Silt and natural shell substratum with cobbles inshore of the consent boundary (photo 28, 13.6 m depth).





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

No. & Depth (m)	Coordinates	Location	Substratum	Shell debris
1, 26.2m		Within consent, no structures	silt and clay	none
2, 26.5m	1672114.2,5454641.2	Within consent, no structures	silt and clay, mussel shell	low
3, 26.1m	1672097.8,5454587.6	Offshore of consent, no structures	silt and clay	none
4, 25.5m	1672098.8,5454510.8	Offshore of consent, no structures	silt and clay	none
5, 24.7m	1672091.6,5454433.7	Offshore of consent, no structures	silt and clay, mussel shell	low
6, 24m		Offshore of consent, no structures	silt and clay, mussel shell	low
7, 23.8m	•	Within consent, warps present	silt and clay, mussel shell	low-moderate
8, 22m		Within consent, warps present	silt and clay, mussel shell	moderate
9, 16.8m	1672215.4,5454329.8	Within consent, warps present	silt and clay, mussel shell	moderate-high
10, 26.3m	1672159.2,5454673.4	Within consent, warps present	silt and clay	none
11, 26.3m	1672215.1,5454723.4	Consent boundary, no structures	silt and clay	none
12, 26.1m	1672217.8,5454668.6	Within consent, warps present	silt and clay	none
13, 26.6m	1672160.3,5454632.6	Within consent, backbones present	silt and clay, mussel shell	low
14, 26.4m	1672157.9,5454556.0	Within consent, backbones present	silt and clay, mussel shell	low
15, 25m	1672145.4,5454478.6	Within consent, warps present	silt and clay, mussel shell	none
16, 21.2m	1672203.0,5454487.4	Within consent, warps present	silt and clay, mussel shell	low-moderate
17, 24.7m	1672147.0,5454422.9	Within consent, backbones present	silt and clay	none
18, 24m	1672131.8,5454375.5	Within consent, backbones present	silt and clay, mussel shell	high
19, 23.9m	1672145.5,5454347.0	Within consent, warps present	silt and clay, mussel shell	low
20, 16.6m	1672213.7,5454457.3	Within consent, backbones present	silt and clay, mussel shell	moderate
21, 17.3m	1672213.7,5454394.0	Within consent, backbones present	silt and clay, mussel shell	moderate-high
22, 17.4m	1672213.4,5454348.2	Within consent, warps present	silt and clay, mussel shell	moderate-high
23, 24.9m	1672210.9,5454626.0	Within consent, backbones present	silt and clay, mussel shell	high
24, 22m	1672211.5,5454568.8	Within consent, backbones present	silt and clay, mussel shell	moderate
25, 19.6m	1672208.8,5454532.4	Within consent, warps present	silt and clay, mussel shell	low-moderate
26, 24.9m	1672236.5,5454665.4	Inshore of consent, no structures	silt and clay, mussel shell	low
27, 21m	1672232.7,5454617.7	Inshore of consent, no structures	silt and clay, mussel shell	moderate-high
28, 13.6m	1672232.7,5454543.9	Inshore of consent, no structures	silt and clay, cobbles, natural shell	none
29, 18.7m	1672217.9,5454543.7	Within consent, backbones present	silt and clay, mussel shell	high
30, 12m	1672247.4,5454528.3	Within consent, no structures	silt and clay, cobbles, natural shell	none
31, 16.3m	1672228.0,5454526.4	Within consent, no structures	silt and clay, natural whole shell, natural shell	none
32, 11.3m		Inshore of consent, no structures	silt and clay, cobbles, natural shell	none
33, 14.5m	1672237.6,5454482.6	Inshore of consent, no structures	silt and clay, cobbles, natural shell	none
34, 16.7m	1672222.6,5454486.7	Within consent, warps present	silt and clay, natural whole shell, natural shell	none
35, 15m	1672227.2,5454446.5	Within consent, backbones present	silt and clay	high
36, 9.6m	1672247.0,5454443.6	Inshore of consent, no structures	silt and clay, boulders, cobbles, natural shell	none
37, 14.5m	1672231.0,5454400.0	Inshore of consent, no structures	silt and clay	none
38, 10.5m	1672251.2,5454379.1	Inshore of consent, no structures	silt and clay, cobbles, natural shell	none
39, 11.3m	1672244.7,5454305.9	Within consent, no structures	silt and clay	none
40, 15m			silt and clay	none
,		Within consent, no structures Within consent, no structures		



#### Within the consent

Most of the consent was characterised by silt and clay substratum (Table 2). Mussel shell debris was observed within the consent area (Plate 5). Mussel shell debris ranged from none through to high cover, with high levels recorded under the existing backbones (Table 2, Plate 6).

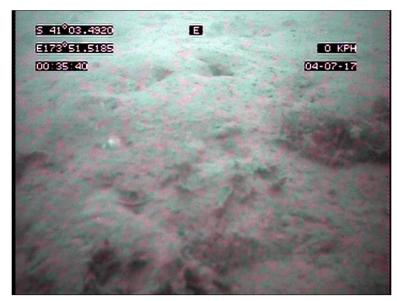


Plate 5. Silt and low level of mussel shell debris (photo 14, 26.4 m depth).

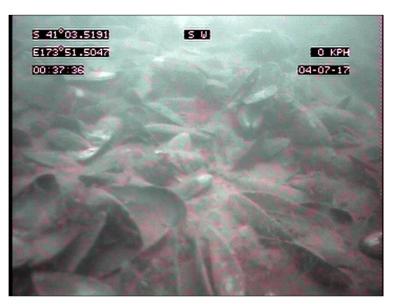


Plate 6. Silt and clay with a high level of mussel shell debris (photo 18, 24 m depth).



Six photographs (four inside the consent boundary and two immediately adjacent to the consent) showed the presence of cobbles on silt and natural broken shell benthos (Figures 5a and 5b). No mussel shell debris was observed from these drop camera stations (Plate 7).

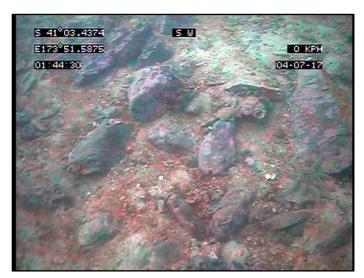


Plate 7. Silt and clay with natural broken shell and scattered cobbles (photo 30, 12 m depth).

#### Offshore of Consent

Photos collected offshore of the consent renewal boundary were characterised by a silt base with none or low cover of mussel shell (Plate 8).



Plate 8. Silt and clay with low cover of mussel shell (photo 5, 24.7 m depth).



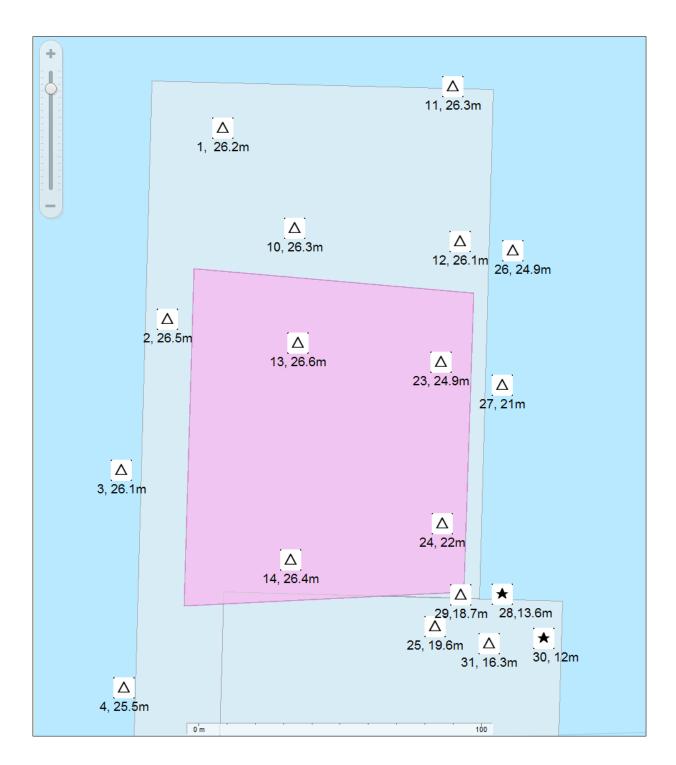


Figure 5a. Drop camera stations (triangles = soft substrata, stars = hard substrata), consent renewal area (grey), and surface structures (pink). Numbers are the photo number and water depth (m).



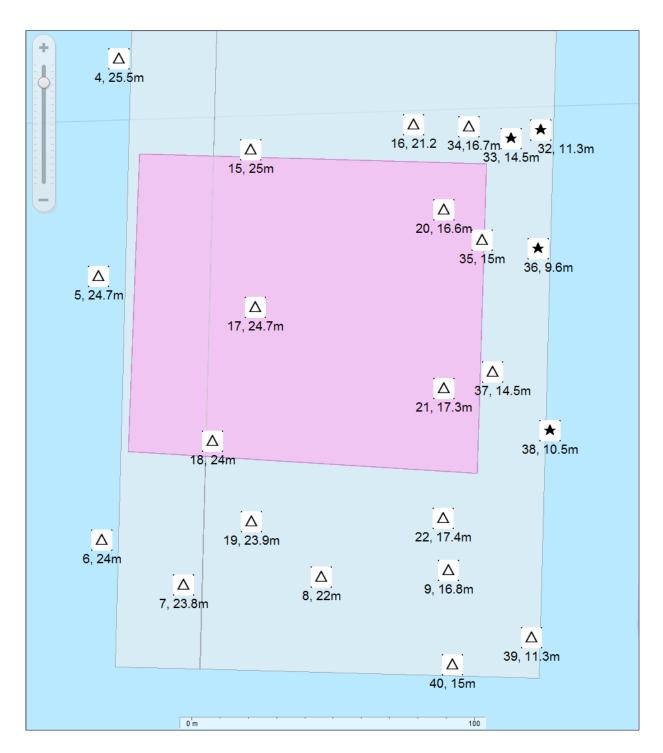


Figure 5b. Drop camera stations (triangles = soft substrata, stars = hard substrata), consent renewal area (grey), and surface structures (pink). Numbers are the photo number and water depth (m).



#### 5.0 Conclusions

#### 5.1 Benthic habitats

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

The consent area was mostly located over silt and clay substratum. Cobbles were recorded along the inshore area of the consent at depths up to approximately 15 m. Most cobble and small boulder habitat was observed inshore of the consent.

Silt and clay substratum is widespread the Marlborough Sounds. Mud (i.e. silt and clay) is the most common subtidal habitat in the sheltered Marlborough Sounds and has been traditionally targeted by marine farming activities. This substratum type is considered suitable for consideration for marine farming activities in the Marlborough Sounds.

Cobble substratum is not traditionally considered suitable for marine farming activities as it usually is smothered by shell and likely no longer functions as a hard substratum habitat.

#### 5.2 Species and communities

Species abundance and diversity was highest from inshore, shallow rocky areas compared to offshore, deeper silt substratum under and around the growing structures. Encrusting species observed from rocky areas appeared representative of a relatively sheltered shore.

No species or communities of scientific, conservation or ecological importance were observed during the present study (see Davidson *et al.*, 2011 for criteria and biological features).



#### 5.3 Mussel farming impacts

#### **5.3.1** Benthic impacts

Benthic mussel shell was recorded from 21 of the 40 drop camera photos collected under and near backbones. Shell debris impact levels were within the range known for mussel farms in the Marlborough Sounds and towards the low to moderate impact range apart from directly under droppers where shell did occasionally reach high levels.

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. 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).

#### **5.3.2** 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).

Tidal flows in Brightlands Bay are expected to be low; however, winds are likely to be an important driver of water movement in this area, especially during the predominant northwesterly flows. Brightlands Bay is near the main channel of Pelorus Sound. It is therefore



likely that water residence times are short (i.e. water turnover time is short) compared to bays further distant where turnover times are often >8 days (e.g. Hallam Cove).

#### 5.4 Boundary adjustments, recommendations and monitoring

Davidson (1996) and Brown (1999) both suggested that the farm be located further distance from shore than it is presently positioned. Their reasons were primarily related to the presence of rocky substrata located close to shore. The present survey confirmed the presence of cobble, boulder and rock substrata within and immediately adjacent to the consent. It is recommended that the inshore consent boundary be relocated further from shore (Figure 6). During the present survey, substratum located immediately offshore of the consent were investigated and proved suitable for consideration for marine farming activities, should the farm owner wish to apply for an offshore extension to balance the inshore loss.

For the remaining area of the consent there were no biological values detected that would preclude the proposed consent for continuing to be used for mussel farming. The substratum is the most common and widespread habitat type in sheltered shore of the Marlborough Sounds and the sheltered outer Sounds. The impacts for mussel farming on muddy habitats characterised by silt, clay and natural shell are usually low compared to farm impacts in shallow, habitats dominated by rocky or biogenic communities. Farm structures in this area are therefore situated over habitats traditionally considered suitable for the activity of farming mussels. No other reductions to the present farm are therefore recommended on ecological grounds.

Based on the substratum located under structures and the impact levels of the existing activity, no monitoring is suggested.



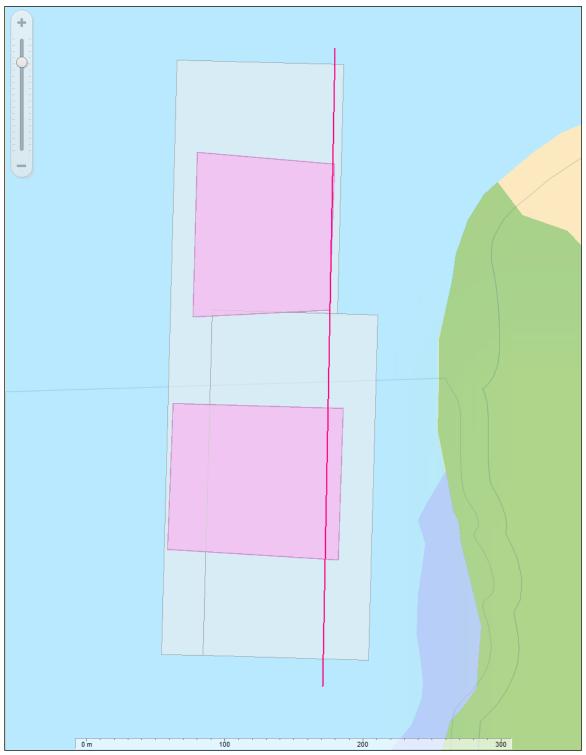


Figure 6. Existing consent (grey), marine farm surface structures (pink) and suggested inshore consent boundary line (red).



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# Appendix 1. Drop camera photographs

Photo site 1 Photo site 2





Photo site 3

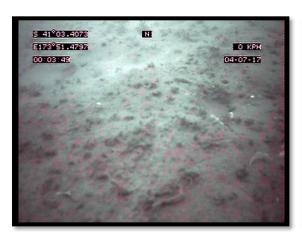


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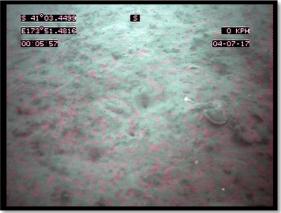
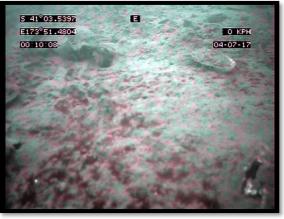


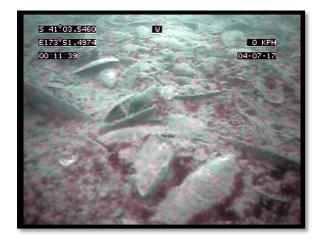
Photo site 5



Photo site 6



#### Photo site 7 Photo site 8



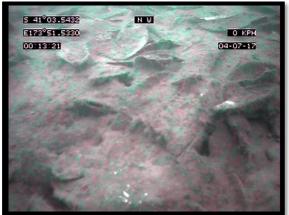


Photo site 9 Photo site 10



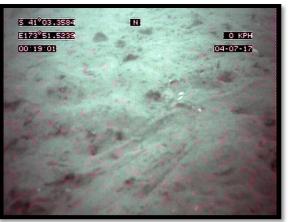
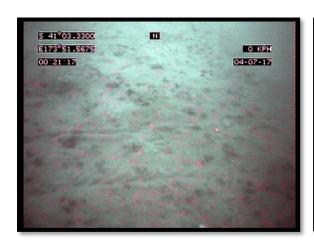


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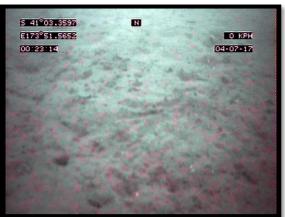
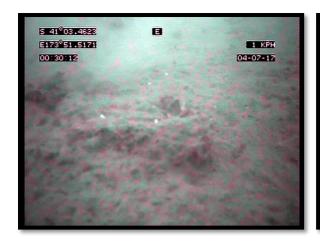


Photo site 13 Photo site 14





Photo site 15 Photo site 16



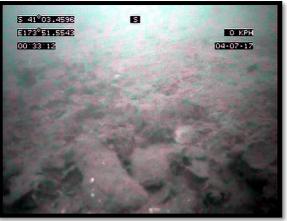
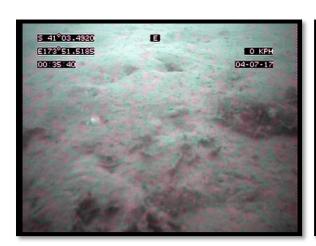


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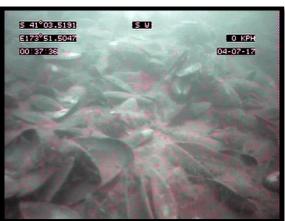


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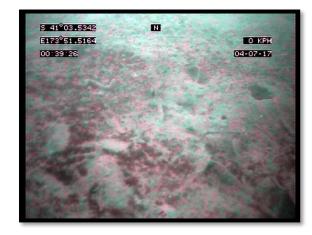




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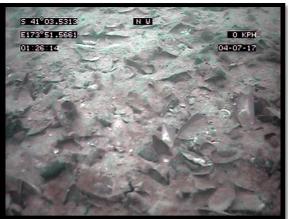
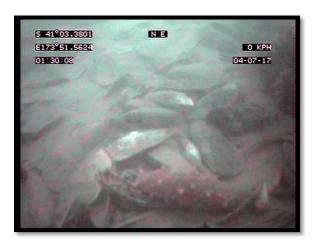


Photo site 23 Photo site 24



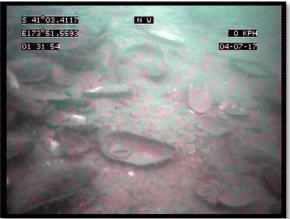


Photo site 25 Photo 26





Photo site 27 Photo 28

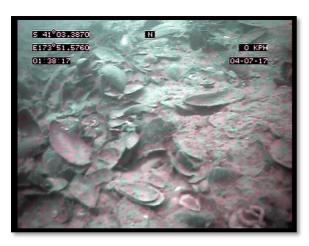




Photo site 29 Photo site 30

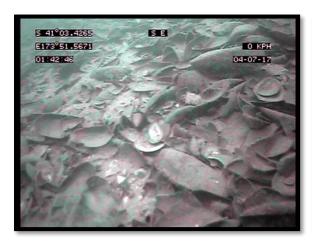




Photo site 31 Photo 32



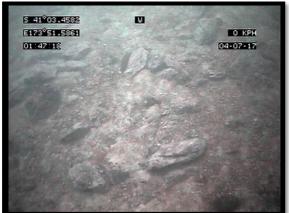


Photo site 33 Photo 34



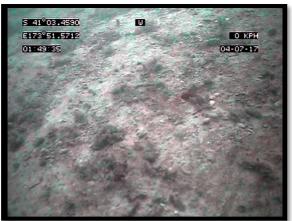


Photo site 35 Photo site 36



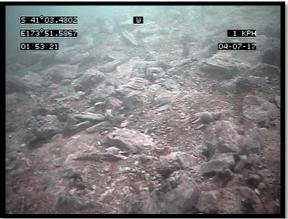
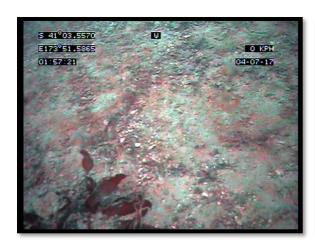


Photo site 37 Photo 38

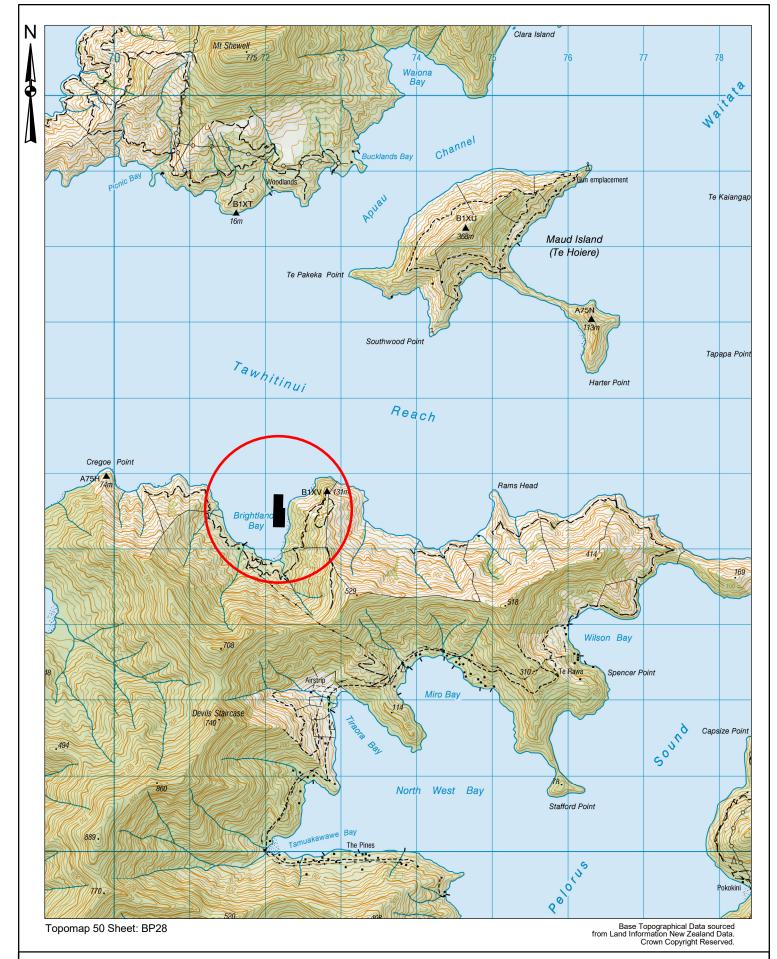




Photo site 39 Photo 40







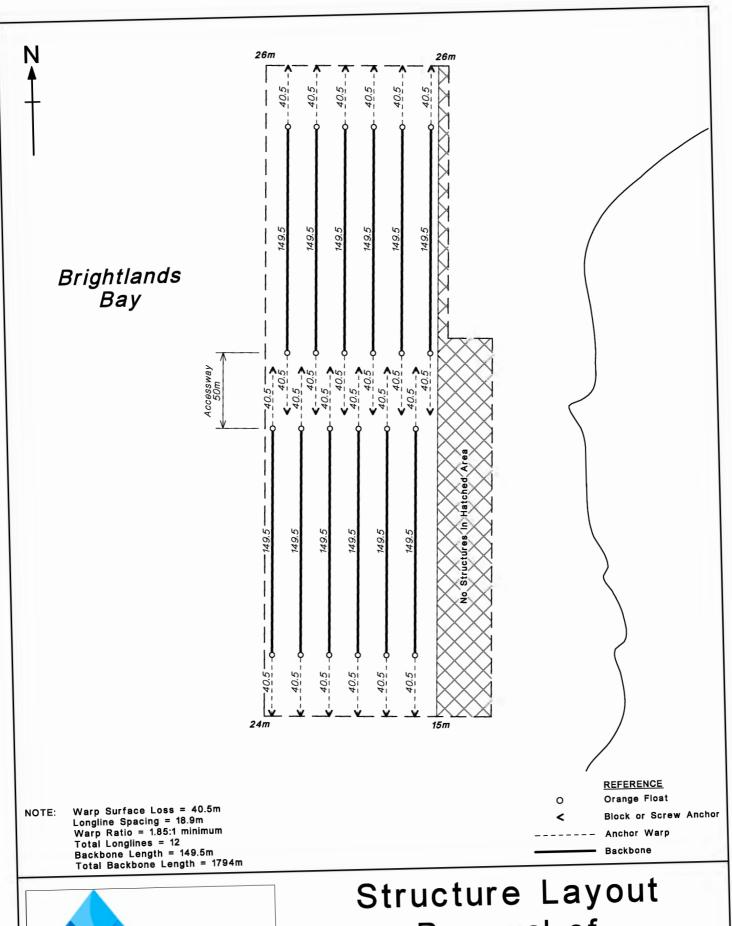


Renewal of Marine Farm 8308 Brightlands Bay - Pelorus Sound



 Scale 1:50,000

 500
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 3000
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 Meters

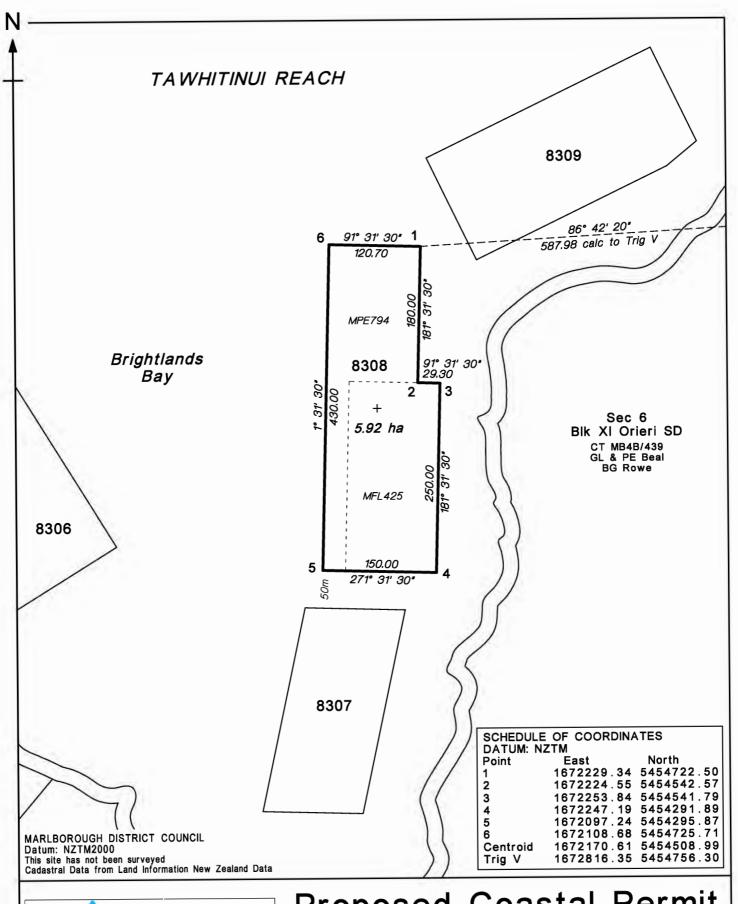




MF\_2521a 8 August 2017

# Structure Layout Renewal of Marine Farm Site 8308

SCALE 1:2500 50 0 50 100 150 m





# Proposed Coastal Permit Renewal of Marine Farm 8308 Brightlands Bay

SCALE 1:5,000 50 0 100 200 300 400 metres To: Marlborough District Council PO Box 443 Blenheim 7240



ISO 9001:2008 Document Number: RAF0010-CI1220

# SUBMISSION ON APPLICATION FOR A RESOURCE CONSENT

1. Submitter Details	
Name of Submitter(s) in full	
Address for Service (include post code)	
Email	
Telephone (day) Mobile	Facsimile
Contact Person (name and designation, if applicable)	
2. Application Details	
Application Number	U
Name of Applicant (state full name)	
Application Site Address	
Description of Proposal	
3. Submission Details (please tick one)	
/we support all or part of the application	
/we oppose all or part of the application	
/we are neutral to all or part of the application	
The specific parts of the application that my/our s pages if required)	ubmission relates to are (give details, using additional



The reasons for my/our submission are (use additional pages if required)					
applio	The decision I/we would like the Council to make is (give details including, if relevant, the parts of the application you wish to have amended and the general nature of any conditions sought. Use additional pages if required)				
4.	Submission at the Hearing				
I/we \	wish to speak in support of my/our submission				
I/we	do not wish to speak in support of my/our submission				
Coun or mo such	TIONAL: Pursuant to section 100A of the Resource Management Act ncil delegate its functions, powers, and duties required to hear and core hearings commissioners who are not members of the Council. (In a request you may be liable to meet or contribute to the costs of coalso be made separately in writing no later than 5 working days after	lecide the application to one  Please note that if you make  mmissioner(s). Requests			
5.	Signature				
	_	Dete			
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6.	Important Information				
	Council must receive this completed submission before the closing date an completed submission may be emailed to <a href="mailto:mdc@marlborough.govt.nz">mdc@marlborough.govt.nz</a>	d time for submission for this application. The			
	<ul> <li>You must also send a copy of this submission to the applicant as soon as readdress for service.</li> </ul>	easonably practicable, at the applicant's			
	Only those submitters who indicate that they wish to speak at the hearing was a submitter of the submitters.	vill be sent a copy of the hearing report.			
7.	Privacy Information				
Act 19	Information you have provided on this form is required so that your submission can be 991. The information will be stored on a public file held by Council. The details may a ite. If you wish to request access to, or correction of, your details, please contact Cou	ilso be available to the public on Council's			

 $O: Templates forms \\ Reg Quality Systems \\ I Resource Mgmt Control Chapter (R) \\ AF Application Forms \\ RAF0010-C11220-Submission on Application for Resource Consent-1. doc$