MARLBOROUGH
DISTRICT COUNCIL

RESOURCE CONSENT APPLICATION

U191088

Andrew James King and Sandra Ann King as trustees of the A J King Family Trust and S A King Family Trust; and David Muir McLaren and Lenore Mary McLaren

Hallam Cove, Pelorus Sound/Te Hoiere

Submissions Close

5.00 pm Friday 28 February 2020

Emma Hunter-8735

From: RCInbox
Sent: Tuesday, 10 December 2019 11:17 AM
To: RCInbox
Subject: An Application has been submitted

New resource consent application received

An application for a new resource consent has been received by Council on 10/12/2019

Applicant(s): A J KING FAMILY TRUST & S A KING FAMILY TRUST , David Muir McLaren, Lenore Mary McClaren
Consent(s) applied for: Coastal Permit - Activity

Download and review the application.

View the application online.

Version 0

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Application for Resource Consent

Applicant details

Application for Resource Consent

Sections 88 and 145, Resource Management Act 1991

To

Marlborough District Council

Applicant

I,

A J KING FAMILY TRUST & S A KING FAMILY TRUST

6882 Kenepuru Road
Nopera
Marlborough Sounds 7282

N/a

Andrew James King

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Nopera
Marlborough Sounds 7282

027 486 4212
sandra.king@xtra.co.nz

David Muir McLaren

4 Cambria Gardens
The Wood
Nelson 7010

021 034 3861
mclaren@ts.co.nz

Lenore Mary McClaren

4 Cambria Gardens
The Wood
Nelson 7010

021 034 3861

mclaren@ts.co.nz

Apply for the following type(s) of resource consent

Coastal

Agent

Aquaculture Direct Limited

PO Box 213
Blenheim 7240

Bruce Cardwell

021 451 284

bruce@aquaculturedirect.co.nz

Project reference

Marine Farm 8188

Property details

Site and location details

The site at which the proposed activity is to occur is as follows:

Site address

Marine Farm 8188, Hallam Cove, Central Pelorus West, Marlborough

Legal description

Marine Farm 8188

Is there locale information in regards to the site?

No - there is no locale information in regards to the site

Site description

Description of the site at which the activity is to occur

The farm is located in eastern Hallam Cove, Central Pelorus Sound.

The farm sits alongside other farms on the eastern side of Hallam Cove. The nearest marine farms to 8188 are the adjacent farms to the south 8187 and 8186 and to the north 8189 and 8190.

The adjacent land is zone Rural 1. The nearest residence is approximately 1.3 kilometres to the north of the site.

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

Owners and occupiers of the application site

Applicant is the only owner and occupier?

Yes - the applicant is the only owner and occupier

Proposed activity

Description of the activity

The activity to which the application relates (the proposed activity) is as follows:

A J King Family Trust & S A King Family Trust & David Muir McLaren and Lenore Mary McLaren (Previously the McLaren Family Trust) has applied to renew the existing resource consent MFL192 for marine farm site 8188 (total 3.1912ha) for the purpose of farming Greenshell mussels (Perna canaliculus), using conventional long line methods. (Refer attached layout diagrams illustrating the site.)

MFL192 - was granted in November 1981 and expires 31st December 2024.

The Applicant seeks a 20-year term.
8188 is assessed as a restricted discretionary activity in the current Marlborough Sounds Resource Management Plan.

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

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

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 industry codes of practice, 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).

The original consent allowed for salmon farming to occur on the site however the applicants will not be renewing this species.
In 2006 a variation to the plan was submitted by the previous owner for 8 x 100metre backbones.

When the applicants jointly purchased the farm in 2013 there were 8 backbones installed at 150 metres each. The applicants used 2 of the 8 lines for spat holding.

The farm is managed conservatively and performs well on this configuration.

The site dimensions are as per the layout plans attached. The application includes 8 long lines at 150 metres.

There are currently 8 lines installed and operating at the site that grow Greenshell mussels.

The site layout is attached to the application.

A J King Family Trust & S A King Family Trust are a family owned mussel farming and spat catching business and have lived in the Kenepuru Sounds since 1982. They currently employ two full time staff in addition to themselves. A

total of three families are employed within the business. One of the staff has a child that attends the local Waitaria Primary School. The applicants have developed a successful spat catching operation. Locally caught Marlborough Sounds and Golden Bay spat is seeded onto their farms and they are able to supply their processors with mussels when Kaitaia origin spat is unavailable.

Over 34 years the applicants have increased their marine farming area by a combination of applying for licences & resource consents and purchasing farms.

The applicant's four children attended the local Kenepuru Sound, Waitaria Bay School before going to boarding school in Nelson. The applicant's son is working in the business and is taking over the operation.

The applicants are involved in local Sounds community activities including the Golf Club Committee (Sandra) has been treasurer for over 15 years. Andrew was on the Marine Farming Association committee for many years and Sandra is a Justice of the Peace. Previously they have been involved in with Playgroup, Waitaria Bay School Committee, local school Board of Trustees and Hopai Bay Sports committee.

David and Mary were pioneers of the mussel industry and became interested in marine farming in 1975 when they actively began farming in Hallam Cove. They were based in Duncan Bay using a fiberglass runabout to complete catching spat and manually reseeding individual xmas tree spat ropes from the beach. Their dedication to developing a viable marine farming business never wavered. There were many years when they subsidized the operation from external sources. In 1981 they purchased and rebuilt the fishing vessel "Christine" in their engineering yard, and this served them well for fifteen years.

As the marine farms became more financially stable the workload became too much for the "Christine" and in 1996 we built the "Gladiator" a 19 meter all-purpose barge at Renwick and their son then managed the servicing side of the farm operation.

David and Mary were awarded the Marine Farming Association, marine farmer of the year 2000. They have always been involved in all aspects of the industry especially around improved engineering of mussel seeding equipment to improve spat quality and survival.

The farm supplies both the Talleys Group Limited and United Fisheries Limited for both the food service and nutraceutical markets.

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'.

Kotare Marine Farm Limited, owned by Andrew, Sandra and David King are a recipient of Environmental Certification status from the Marine Farming Association. This is achieved through complying with all requirements of the Marine Farming Association's Environmental Programme and having passed audits of the farms and vessels.

Other activities that are part of the proposal to which the application relates

Are there permissions needed which do not relate to the Resource Management Act 1991?

Yes - there are permissions needed which do not relate to the Resource Management Act 1991

Permissions needed which do not relate to the Resource Management Act 1991

Other activities that relate to this application include permissions that do not relate to the Resource Management Act, including;

1. Fish farming licence

Are there permitted activities that are part of this application?

Yes - there are permitted activities that are part of this application

Permitted activities that are part of this application:

The application is for a new consent to replace MFL192 in Hallam Cove, Central Pelorus West, to seed, cultivate and harvest Greenshell mussels (Perna canaliculus), including occupation of 3.1912ha of the coastal marine area. 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 8188.

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)).
The proposed activity has been assessed against the relevant provisions of the:
1. New Zealand Coastal Policy Statement 2010;
2. Marlborough Regional Policy Statement;
3. Marlborough Sounds Resource Management Plan; and
4. Proposed Marlborough Environment Plan

at Sections 23 and 24/Appendices A – C of this Assessment of Environmental Effects.

Additional resource consents

Are any additional resource consents needed for the proposal to which this application relates?

No - no additional resource consents are needed for the proposal to which this application relates

Consent summary

I apply for the following resource consents.

Consent information

Marine Farm 8188

Consent type

Coastal

Subcategory type

Activity

Description of consent being applied for

A J King Family Trust & S A King Family Trust & David Muir McLaren and Lenore Mary McLaren (Previously the McLaren Family Trust) has applied to renew the existing resource consent MFL192 for marine farm site 8188 (total 3.1912ha) for the purpose of farming Greenshell mussels (Perna canaliculus), using conventional long line methods. (Refer attached layout diagrams illustrating the site.)

MFL192 - was granted in November 1981 and expires 31st December 2024.

The Applicant seeks a 20-year term.
8188 is assessed as a restricted discretionary activity in the current Marlborough Sounds Resource Management Plan.

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

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

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 industry codes of practice, 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).

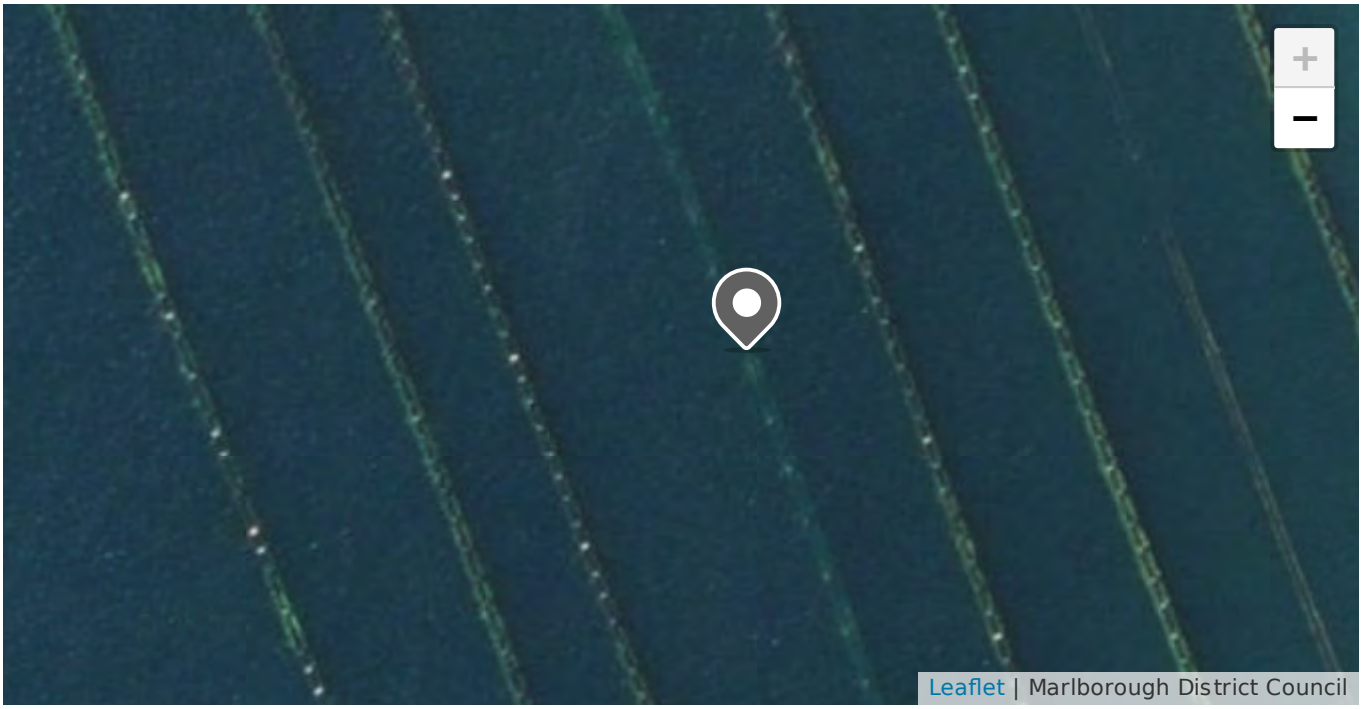
Location of the consent

Easting

1669387.391

Northing

5460411.352



Triggering rules

Rules which trigger the consent

I include an assessment of the proposed activity against any relevant provisions of a document referred to in section 104(1)(b) of the Resource Management Act 1991, including the information required by clause 2(2) of Schedule 4 of that Act.

The assessment under this section must include an assessment of the activity against
(a) Rules in a document; and
(b) Any relevant requirements, conditions, or permission in any rules in a document; and
(c) Any other relevant requirements in a document (for example, in a national environmental standard or other regulations))

Triggering rules assessment

The application is for a new consent to replace MFL192 in Hallam Cove, Central Pelorus West, to seed, cultivate and harvest Greenshell mussels (Perna canaliculus), including occupation of 3.1912ha of the coastal marine area. 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 8188.

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)).
The proposed activity has been assessed against the relevant provisions of the:
1. New Zealand Coastal Policy Statement 2010;
2. Marlborough Regional Policy Statement;
3. Marlborough Sounds Resource Management Plan; and
4. Proposed Marlborough Environment Plan

at Sections 23 and 24/Appendices A – C of this Assessment of Environmental Effects.

Assessment of Effects on the Environment (AEE)

Clause 6 - Information required in assessment of environmental effects

6.1 An assessment of the activity's effect on the environment must include the following information:

6.1(a) if it is likely that the activity will result in any significant adverse effect on the environment, a description of any possible alternative locations or methods for undertaking the activity

Refer to attached Assessment of Environmental Effects

6.1(b) an assessment of the actual and potential effect on the environment of the activity

The actual and potential effects of the proposed activity on the environment are detailed in the attached Assessment of Environmental Effects

6.1(c) if the activity includes the use of hazardous installations, an assessment of any risks to the environment that are likely to arise from such use

Provision not relevant

6.1(d)(i) if the activity includes the discharge of any contaminant, a description of the nature of the discharge and the sensitivity of the receiving environment to adverse effects

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).

6.1(d)(ii) if the activity includes the discharge of any contaminant, a description of any possible alternative methods of discharge, including discharge into any other receiving environment

See assessment in question 6.1 (d) (i)

6.1(e) a description of the mitigation measures (including safeguards and contingency plans where relevant) to be undertaken to help prevent or reduce the actual or potential effect.

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'.

Kotare Marine Farm Limited, owned by Andrew, Sandra and David King are a recipient of Environmental Certification status from the Marine Farming Association. This is achieved through complying with all requirements of the Marine Farming Association's Environmental Programme and having passed audits of the farms and vessels.

6.1(f) identification of the persons affected by the activity,

An e-mail has been sent to all Iwi listed below identifying the site prior to the application being submitted.
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

A statement from Ngai Kuia has been included in sections 12 and 23.1 of this report.

6.1(f cont.) any consultation undertaken,

See assessment in question 6.1 (f)

6.1(f cont.) and any response to the views of any person consulted

See assessment in question 6.1 (f)

6.1(f cont.) and any iwi consultation undertaken

See assessment in question 6.1 (f)

6.1(g) if the scale and significance of the activity's effects are such that monitoring is required, a description of how and by whom the effects will be monitored if the activity is approved.

7.8 Boundary adjustments, line adjustments and monitoring
No biological communities of particular interest were found inside the consent during the present survey. Although

most of the farm was located over silt and natural shell in a sheltered location, low levels of farm impact were observed.

Warps are known to have little or no impact on benthic communities (Davidson and Richards, 2014). At this site the benthos under warps appeared relatively natural, with little mussel shell debris present under these structures.

Any effect, be it positive or negative, on king shag and marine mammals would remain unchanged if the farm is reconsented

A small area supporting occasional cobbles were observed in the east under warps. The occasional cobbles do not appear to be impacted form the present farm. No change to the present farm boundary is therefore suggested. Habitats and species associated with the site are typical of sheltered parts of central Pelorus Sound and as such no monitoring is suggested." Davidson Environment Ltd (Report 932, attached)

6.1(h) if the activity will, or is likely to, have adverse effects that are more than minor on the exercise of a protected customary right, a description of possible alternative locations or methods for the exercise of the activity (unless written approval for the activity is given by the protected customary rights group).

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.

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 recognises that Ngati Kuia have a special, long, intergenerational association to Te Taulhu o te waka a Maui/Top of the South Island and consider the Te Hoiere/Pelorus to be at the centre of their spheres of occupation and influence, spanning 1,000 years.

Over many centuries Ngati Kuia and their descendants have built paa, kainga, purakau, mapped mahinga kai and built spiritual connections where their people lived and been laid to rest.

"Te Hoiere awa/moana is Taonga tuku iho ki Tangata Whenua/Ngati Kuia therefore this requires the Crown and its agencies to give recognition to and make provision for the exercise of Kaitiakitanga by whanau, hapu and Iwi who are operating within the Maori Customary and commercial Deeds of Settlement. "

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

Clause 7 - Matters that must be addressed by assessment of environmental effects

7.1 An assessment of the activity's effects on the environment must address the following matters:

7.1(a) any effect on those in the neighbourhood and, where relevant, the wider community, including any social, economic, or cultural effects

8.1 The Shoreline
The distance from the shoreline according to the original Cadastral mapping is inside the conventions established in the Marlborough Sounds Resource Management Plan. However, the inshore boundary is less than 50 metres from the low tide mark using the advanced mapping techniques now available.

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 proceed through the farm and 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 is no registered mooring in the vicinity of the site. The closest mooring is 1.3 kilometres away at the head of the Bay.

The site does not impede access to this mooring.

8.5 Indirect Effects-Servicing vessels at site
The Applicant estimates farming and harvesting vessels will visit the site on an average of 15-20 days a year, for periods of 0.5 to 6 hrs to undertake farm maintenance, seeding and harvesting.

The total number of hours spent on these activities is estimated to be 40-50 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.

The visual impact of the marine farm will not change.

Access to the coast for recreationalists is maintained.

7.1(b) any physical effect on the locality, including any landscape and visual effects

9.2 Scenic Value
9.2.1 Landscape
The area has been identified within the current 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 nature landscapes and features in the proposed Plan.

Section 6(b) of the Act requires decision makers to recognise as a matter of national importance the protection of outstanding natural features and landscapes (ONFLs) from inappropriate subdivision, use and development. Policy 15(a) of the New Zealand Coastal Policy Statement 2010 (NZCPS) requires adverse effects of activities on ONFLs in the coastal environment to be avoided. NZCPS policy 15(b) requires significant adverse effects from activities on other natural features and natural landscapes in the coastal environment to be avoided, and other adverse effects to be avoided, remedied or mitigated. The operative Marlborough Sounds Resource Management Plan (MSRMP) identifies Areas of Outstanding Landscape Value (AOLV). The application site is within an AOLV.

The proposed Marlborough Environment Plan (MEP) contains landscape overlay maps based on the 2015 Marlborough Landscape Study. While these maps are generally considered to be based on more up-to-date methodology than the MSRMP, they are the subject of a large number of submissions. The application site is not within an ONFL in the MEP.

In assessing whether the proposal is appropriate in the context, we must understand what is sought to be protected, namely the values of the area. The values for each of those areas are listed in the schedules in MEP Appendix 1.

Aquaculture is part of the Marlborough Sounds environment. A marine farm in this location does not interfere with the listed values, because it is consistent with the mixed use/working character of this part of the Sounds, it is low profile in nature and only visible at close range (with visual effects diminishing in some conditions depending on lighting and weather), and will not interfere with significant ecological values, as addressed elsewhere in this application. In addition, Greenshell mussels are naturally occurring in New Zealand and are indigenous. Aquaculture is perhaps the only form of farming where the effects are fully reversible.

On this basis, adverse effects from the activity on identified ONFLs are avoided, consistent with NZCPS policy 15(a); and significant adverse effects on other natural features and natural landscapes are avoided, consistent with NZCPS policy 15(b).

9.2.2 Natural character
The area has not been described as having outstanding, very high or high natural character in the proposed Plan.

9.2.3 Visual Amenity
Section 7(c) of the Act requires decision makers to have particular regard to the maintenance and enhancement of amenity values. The entirety of the Marlborough Sounds Coastal Landscape, is mapped as a High Amenity Landscape in the MEP. The values of this amenity landscape are outlined in Appendix A. An individual marine farm at this location will not have an impact on a high amenity landscape of the scale mapped in the MEP.
The area is cleared pastural land, with a small forestry blocks adjacent to the farm.

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

7.1(c) any effect on ecosystems, including effects on plants or animals and any physical disturbances of habitats in the vicinity

The actual and potential effects of the proposed activity on the environment are detailed in the attached Assessment of Environmental Effects

7.1(d) any effect on natural and physical resources having aesthetic, recreational, scientific, historical, spiritual, or cultural value, or other special value, for present or future generations

The actual and potential effects of the proposed activity on the environment are detailed in the attached Assessment of Environmental Effects

7.1(e) any discharge of contaminants into the environment, including any unreasonable emission of noise, and options for the treatment and disposal of contaminants

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.

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'.
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- 'Reducing Pollution and Emissions from Marine Farming 'On Water' Activities'.
- 'Reducing Waste taken to Landfill from Marine Farming 'On water' Activities'.

Kotare Marine Farm Limited, owned by Andrew, Sandra and David King are a recipient of Environmental Certification status from the Marine Farming Association. This is achieved through complying with all requirements of the Marine Farming Association's Environmental Programme and having passed audits of the farms and vessels.

7.1(f) any risk to the neighbourhood, the wider community, or the environment through natural hazards or hazardous installations

8.1 The Shoreline
The distance from the shoreline according to the original Cadastral mapping is inside the conventions established in the Marlborough Sounds Resource Management Plan. However, the inshore boundary is less than 50 metres from the low tide mark using the advanced mapping techniques now available.

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 proceed through the farm and 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 is no registered mooring in the vicinity of the site. The closest mooring is 1.3 kilometres away at the head of the Bay.

The site does not impede access to this mooring.

Applicant's proposed conditions for this activity

A J King Family Trust & S A King Family Trust & David Muir McLaren and Lenore Mary McLaren (Previously the McLaren Family Trust) has applied to renew the existing resource consent MFL192 for marine farm site 8188 (total 3.1912ha) for the purpose of farming Greenshell mussels (Perna canaliculus), using conventional long line methods. (Refer attached layout diagrams illustrating the site.)

Part 2 RMA

Matters of national importance (Section 6 Resource Management Act 1991)

1. Assess your application against the following matters of national importance:

6.1 (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.

6.1 (b) the protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development:

The area has been identified within the current Marlborough Sounds Resource Management Plan as being an area of outstanding natural landscape value. 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.

The area has not been described as an area of outstanding nature landscapes and features in the proposed Plan, these assessments were made with the farms already in place and operational. There was no direction given in the plan that the marine farms should be removed for the area to be assessed as having outstanding nature landscapes and features.

6.1 (c) the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna:

The adjacent vegetation next to the farm is cleared pastural land, with a small forestry blocks adjacent to the farm.

6.1 (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.

6.1 (e) the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga:

The Applicant will continue to discuss this through consultation with Iwi.

6.1 (f) the protection of historic heritage from inappropriate subdivision, use, and development:

The applicant is unaware of any historical sites on land nearby and will continue to discuss this through consultation with Iwi

6.1 (g) the protection of protected customary rights.

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.

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 recognises that Ngati Kuia have a special, long, intergenerational association to Te Taulhu o te waka a Maui/Top of the South Island and consider the Te Hoiere/Pelorus to be at the centre of their spheres of occupation and influence, spanning 1,000 years.

Over many centuries Ngati Kuia and their descendants have built paa, kainga, purakau, mapped mahinga kai and built spiritual connections where their people lived and been laid to rest.

"Te Hoiere awa/moana is Taonga tuku iho ki Tangata Whenua/Ngati Kuia therefore this requires the Crown and its agencies to give recognition to and make provision for the exercise of Kaitiakitanga by whanau, hapu and Iwi who are operating within the Maori Customary and commercial Deeds of Settlement. ”

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

6.1 (h) the management of significant risks from natural hazards.

The industry has developed a tsunami management plan.

Other matters (Section 7 Resource Management Act 1991)

1. Assess your application against the following matters:

7.1 (a) kaitiakitanga:

This matter has been considered earlier in the original proposal. This application is not anticipated to have any additional effects over and above what already exists.

7.1 (aa) the ethic of stewardship:

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’.

Kotare Marine Farm Limited, owned by Andrew, Sandra and David King are a recipient of Environmental Certification status from the Marine Farming Association. This is achieved through complying with all requirements of the Marine Farming Association's Environmental Programme and having passed audits of the farms and vessels.

7.1 (b) the efficient use and development of natural and physical resources:

This matter has been considered earlier in the original proposal. This application is not anticipated to have any additional effects over and above what already exists.

7.1 (ba) the efficiency of the end use of energy:

Provision not relevant

7.1 (c) the maintenance and enhancement of amenity values:

This matter has been considered earlier in the original proposal. This application is not anticipated to have any additional effects over and above what already exists.

7.1 (d) intrinsic values of ecosystems:

This matter has been considered earlier in the original proposal. This application is not anticipated to have any additional effects over and above what already exists.

7.1 (f) maintenance and enhancement of the quality of the environment:

This matter has been considered earlier in the original proposal. This application is not anticipated to have any additional effects over and above what already exists.

7.1 (g) any finite characteristics of natural and physical resources:

This matter has been considered earlier in the original proposal. This application is not anticipated to have any additional effects over and above what already exists.

7.1 (h) the protection of the habitat of trout and salmon:

Provision not relevant

7.1 (i) the effects of climate change:

The effects of climate change on mussel farms is unknown, however, mussels can withstand a large change in temperatures and growing environment. They are currently grown through-out New Zealand from Southland to Coromandel.

7.1 (j) the benefits to be derived from the use and development of renewable energy

Provision not relevant

Treaty of Waitangi (Section 8 Resource Management Act 1991)

Assess your application against the principles of the Treaty of Waitangi (Te Tirti o Waitangi)

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.

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 recognises that Ngati Kuia have a special, long, intergenerational association to Te Taulhu o te waka a Maui/Top of the South Island and consider the Te Hoiere/Pelorus to be at the centre of their spheres of occupation and influence, spanning 1,000 years.

Over many centuries Ngati Kuia and their descendants have built paa, kainga, purakau, mapped mahinga kai and built spiritual connections where their people lived and been laid to rest.

"Te Hoiere awa/moana is Taonga tuku iho ki Tangata Whenua/Ngati Kuia therefore this requires the Crown and its agencies to give recognition to and make provision for the exercise of Kaitiakitanga by whanau, hapu and Iwi who are operating within the Maori Customary and commercial Deeds of Settlement. ”

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

Statutory instruments

I include an assessment of the proposed activity against any relevant provisions of a document referred to in section 104(1) (b) of the Resource Management Act 1991, including the information required by clause 2(2) of Schedule 4 of that Act.

The assessment under this section must include an assessment of the activity against –
(a) Any relevant objectives, or policies in a document; and
(b) Any relevant requirements, conditions, or permission in any rules in a document; and
(c) Any other relevant requirements in a document (for example, in a national environmental standard or other regulations)

Statutes that are relevant to your proposed activity

Assessment under the Resource Management Act 1991

Refer to attached Assessment of Environmental Effects and appendices.

Assessment under the New Zealand Coastal Policy Statement

Refer to attached Assessment of Environmental Effects and appendices.

Assessment under the Marlborough Regional Policy Statement

Refer to attached Assessment of Environmental Effects and appendices.

Assessment under the Marlborough Sounds Resource Management Plan

Refer to attached Assessment of Environmental Effects and appendices.

Assessment under the Proposed Marlborough Environment Plan

Refer to attached Assessment of Environmental Effects and appendices.

Additional information

Applications affected by Section 124 or 165ZH(1)(c) of the Resource Management Act 1991

Does this application relate to an existing consent held by the applicant which is due to expire, and the applicant is to continue the activity?

Yes - this application relates to the following existing consent

Consent number

MFL192 for marine farm site 8188

The value of investment of the existing consent holder is

As part of this Application to renew site 8188, the Applicant is seeking to re-consent the site 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 original existing site has been held by the applicant since 2013. From that time the applicant has expended significantly on the establishment and maintenance of the farm.

The farm produces approximately 150 tonnes per annum ($1,450/ Green Weight Tonne (GWT)) and after processing the final ½ shell product would be sold on the export market at approximately $435,000. Approximately 95% of mussel products are exported. All lines are restocked after harvest to achieve 150 GWT/per annum harvests.

The mussels are processed in Christchurch and Blenheim where they provide a critical part of the production to maintain processing to the factory.

Section 85 of the Marine and Coastal Area (Takutai Moana) Act 2011

Is the proposed activity to occur in an area within the scope of a planning document prepared by a customary marine title group under section 85 of the Marine and Coastal Area (Takutai Moana) Act 2011?

No - the proposed activity does not occur in such an area

Additional information required for subdivision consent

Does your application include one or more consents for subdivision?

No

Additional information required for application for reclamation

Does your application include one or more consents for reclamation?

No

Plans and technical reports

Report type	Report title	Author	External reference	Keywords	Document
Site Plan	-	-	-	-	8188 Renewal Layout Plan.pdf (414 kB)
Site Plan	-	-	-	-	8188 Renewal Locality Map .pdf (3 MB)
Site Plan	-	-	-	-	8188 Renewal Site Plan.pdf (745 kB)
Ecological report	-	-	-	-	8188 Hallam Cove (King McLaren).pdf (4 MB)
Miscellaneous	-	-	-	-	8188 AEE December 2019.pdf (536 kB)

Affected person approvals

Have you obtained affected person(s) approvals?

No - I have not obtained affected person(s) approvals

Iwi

Have you obtained approvals from iwi?

No - I have not obtained approvals from iwi

Public notification (Section 95A(2)(b)) of the Resource Management Act 1991

Is public notification of the application requested by the applicant?

No - public notification of application is not requested

Lodgement fee

Please see Marlborough District Council's fees page for more information.

Payment ID Code

00OEXA

Do you require a GST receipt for a bank payment?

Yes - I do require a GST receipt for a bank payment

If further charges are incurred, please invoice

Applicant

If refunds are applicable, please refund

Applicant

Fee comments

The applicant is to be charged directly for the lodgement fee.

Declaration

I confirm that the information provided in this application and the attachments are accurate.

Yes

Authorised by (your full name)

Bruce Raymond Cardwell

Authorising person is:

Person authorised to sign on behalf of the applicant

Note to applicant

You must include all information required by this form. The information must be specified in sufficient detail to satisfy the purpose for which it is required.

You may apply for 2 or more resource consents that are needed for the same activity on the same form. If you lodge the application with the Environment Protection Authority, you must also lodge a notice in form 16A at the same time.

You must pay the charge payable to the consent authority for a resource consent application under the Resource Management Act 1991 (if any).

If your application is to the Environment Protection Authority, you may be required to pay actual and reasonable costs incurred in dealing with this matter (see section 149ZD of the Resource Management Act 1991).

Privacy information

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

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

APPLICATION BY A J KING FAMILY TRUST & S A KING FAMILY TRUST & DAVID MUIR MCLAREN AND LENORE MARY MCLAREN TO RENEW EXISTING CONSENT FOR MARINE FARM SITE 8188 HALLAM COVE, CENTRAL PELORUS WEST, MARLBOROUGH

1.0 INTRODUCTION – OVERVIEW OF APPLICATION

A J King Family Trust & S A King Family Trust & David Muir McLaren and Lenore Mary McLaren (Previously the McLaren Family Trust) has applied to renew the existing resource consent MFL192 for marine farm site 8188 (total 3.1912ha) for the purpose of farming Greenshell mussels (Perna canaliculus), using conventional long line methods. (Refer attached layout diagrams illustrating the site.)

MFL192 - was granted in November 1981 and expires 31st December 2024.

The Applicant seeks a 20-year term.

8188 is assessed as a restricted discretionary activity in the current Marlborough Sounds Resource Management Plan.

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

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

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 industry codes of practice, 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).

The original consent allowed for salmon farming to occur on the site however the applicants will not be renewing this species.

In 2006 a variation to the plan was submitted by the previous owner for 8 x 100metre backbones.

When the applicants jointly purchased the farm in 2013 there were 8 backbones installed at 150 metres each. The applicants used 2 of the 8 lines for spat holding.

The farm is managed conservatively and performs well on this configuration.

The site dimensions are as per the layout plans attached. The application includes 8 long lines at 150 metres.

There are currently 8 lines installed and operating at the site that grow Greenshell mussels.

The site layout is attached to the application.

A J King Family Trust & S A King Family Trust are a family owned mussel farming and spat catching business and have lived in the Kenepuru Sounds since 1982. They currently employ two full time staff in addition to themselves. A total of three families are employed within the business. One of the staff has a child that attends the local Waitaria Primary School. The applicants have developed a successful spat catching operation. Locally caught Marlborough Sounds and Golden Bay spat is seeded onto their farms and they are able to supply their processors with mussels when Kaitaia origin spat is unavailable.

Over 34 years the applicants have increased their marine farming area by a combination of applying for licences & resource consents and purchasing farms.

The applicant's four children attended the local Kenepuru Sound, Waitaria Bay School before going to boarding school in Nelson. The applicant's son is working in the business and is taking over the operation.

The applicants are involved in local Sounds community activities including the Golf Club Committee (Sandra) has been treasurer for over 15 years. Andrew was on the Marine Farming Association committee for many years and Sandra is a Justice of the Peace. Previously they have been involved in with Playgroup, Waitaria Bay School Committee, local school Board of Trustees and Hopai Bay Sports committee.

David and Mary were pioneers of the mussel industry and became interested in marine farming in 1975 when they actively began farming in Hallam Cove. They were based in Duncan Bay using a fiberglass runabout to complete catching spat and manually reseeding individual xmas tree spat ropes from the beach. Their dedication to developing a viable marine farming business never wavered. There were many years when they subsidized the operation from external sources. In 1981 they purchased and rebuilt the fishing vessel "Christine" in their engineering yard, and this served them well for fifteen years.

As the marine farms became more financially stable the workload became too much for the "Christine" and in 1996 we built the "Gladiator" a 19 meter all-purpose barge at Renwick and their son then managed the servicing side of the farm operation.

David and Mary were awarded the Marine Farming Association, marine farmer of the year 2000. They have always been involved in all aspects of the industry especially around improved engineering of mussel seeding equipment to improve spat quality and survival.

The farm supplies both the Talleys Group Limited and United Fisheries Limited for both the food service and nutraceutical markets.

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'.

Kotare Marine Farm Limited, owned by Andrew, Sandra and David King are a recipient of Environmental Certification status from the Marine Farming Association. This is achieved through complying with all requirements of the Marine Farming Association's Environmental Programme and having passed audits of the farms and vessels.

2.0 INTRODUCTION – THE APPLICATION

2.1 Size: The site is 3.1912ha.

2.2 Structures: The site dimensions will be: inshore boundary 200 metres long, outer boundary 225 metres, southern boundary 150 metres long and northern boundary 152 metres long (refer attached site plan).

There will be a total of 8 longlines (refer attached layout diagram).

2.3 Species: It is proposed to farm and harvest Greenshell 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

The application is for a new consent to replace MFL192 in Hallam Cove, Central Pelorus West, to seed, cultivate and harvest Greenshell mussels (Perna canaliculus), including occupation of 3.1912ha of the coastal marine area. 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 8188.

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)).

The proposed activity has been assessed against the relevant provisions of the:

1. New Zealand Coastal Policy Statement 2010;
2. Marlborough Regional Policy Statement;
3. Marlborough Sounds Resource Management Plan; and
4. Proposed Marlborough Environment Plan

at Sections 23 and 24/Appendices A – C of this Assessment of Environmental Effects.

Other activities that relate to this application include permissions that do not relate to the Resource Management Act, including;

1. Fish farming licence

4.0 TERMS OF CONSENT

MFL192 expires 31st December 2024.

The Applicant seeks a 20-year term.

The expiry date of the existing consent is 2024, along with over 300 marine farms located in the Marlborough Sounds.

As there will be a large bottleneck of applications to the Marlborough District Council around this time, the applicant has requested that if the consent is granted, then the commencement date of the new consent could be delayed for 3 years until 2023.

The applicant is aware of the impending bottleneck and this is the reason for submitting the application prior to the expiry date. It is believed this early submission will assist the Marlborough District Council processing of applications, availability of specialists to complete appropriate reports and be timely for submitters.

5.0 THE SITE - LOCATION

The farm is located in eastern Hallam Cove, Central Pelorus Sound.

The farm sits alongside other farms on the eastern side of Hallam Cove. The nearest marine farms to 8188 are the adjacent farms to the south 8187 and 8186 and to the north 8189 and 8190.

The adjacent land is zone Rural 1. The nearest residence is approximately 1.3 kilometres to the north of the site.

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

6.0 THE SITE - DIMENSIONS

The site dimensions are as per the layout plans attached. The depth of the water at each of the site corners is 22 metres (NW), 9.9 metres (NE), 5 metres (SE), and 6 metres (SW).

The site dimensions are as per the layout plans attached. The application includes 8 long lines.

There are currently 8 lines installed and operating at the site that grow Greenshell mussels.
The site layout is attached to the application.

The warp surface lengths are 25-40 metres from each end of the backbone (see line layout diagram for individual longline lengths). The warp ratio is approximately 2:1.

The farm is identified as being onsite as shown on the Marlborough District Council website (smart maps) however the seaward line is 6 metres outside the consent and will be placed inside the consent at the next harvest.

7.0 THE PRESENT ENVIRONMENT

7.1 The Marine Environment

In February 2019 Mr RJ Davidson, of Davidson Environmental Ltd, undertook a biological study of the ecology of the marine area of site 8188 (Report 932, attached).

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

"7.0 Conclusions
7.1 Benthic habitats and substratum
Substratum and habitat distribution relative to the reconsent area was based on drop camera stations and sonar imaging of the benthos. The consent area was mostly located over a relatively featureless benthos. Deep areas were dominated by silt substratum whereas silt, fine sand and natural shell dominated at depths less than approximately 18 m.

Mud (i.e. silt) is the most common subtidal habitat in sheltered areas of the Marlborough Sounds (McKnight and Grange, 1991) and has been traditionally targeted for marine farming activities. This substratum type is considered suitable for consideration for marine farming activities in the Marlborough Sounds.

Unlike mud, rocky substratum is not traditionally considered suitable for marine farming activities as it is likely smothered by shell debris and may no longer functions as a hard substratum habitat. Occasional cobble substrata were observed under warps and around anchors at the eastern end of the farm. The impact of warps and anchors is known to be well less than backbones (Davidson and Richards, 2014). No impact was observed in the area supporting occasional cobbles.

7.2 Species and communities
Species abundance and diversity from most of the consent was relatively low compared to high current locations in the Sounds. Benthic observations within soft substratum dominated areas of the consent confirmed the area supported species typical of silt and fine sand substratum in the central Pelorus Sound (e.g. microalgal mat, cushion sea star, sea cucumber, 11 arm seastar). Spotty were observed from drop camera photos.

No scallops were observed during the present survey; however, it is likely they will exist, especially in areas <18 m depth. No species, habitats or communities regarded as ecologically significant (see Davidson et al., 2011) were observed within the consent. Filamentous algae were regularly observed under the farm and around the farm at depth <18m. These algal species are likely seasonal being most abundant in warmer months.

7.7 Mussel farming impacts

7.7.1 Benthic impacts

Mussel shell debris was recorded from 6 of the 18 consent area photos. Mussel shell was also observed from one photo under warps, but no shell was observed outside the consent. Mussel debris was most abundant under backbones but when present was low ranging from 2-20% cover.

Shell debris impact levels were within the range known for mussel farms in the Marlborough Sounds. The farm impact at this site is at the low end of the impact range compared to other farms in the Sounds. This not consistent with a study by Harstein and Rowden (2004) who investigated the impact of mussel farming at three sites in Pelorus Sound. The authors had one of their study farms located in this wider area of Pelorus. The authors stated impacts were relatively high in sheltered areas like Hallam Cove, however, the present farm is relatively shallow which may explain low impact 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 farming activity remains consistent, it is very likely that the redox layer will become shallower compared to sites away from the farm (Hartstein and Rowden, 2004; Keeley et al., 2009). This is indicative of an increased level of enrichment under marine farming structures. Redox records under mussel farms vary depending on environmental variables such as wave exposure and substrata. In general, redox values under farms are at the lower end of enrichment spectrum (Keeley et al., 2009).

Recovery of the benthos takes approximately 5-7 years on deep soft substratum as shell is often smothered thereby reducing recovery times compared to inshore coarser substratum areas (Davidson and Richards, 2014).

7.8 Boundary adjustments, line adjustments and monitoring

No biological communities of particular interest were found inside the consent during the present survey. Although most of the farm was located over silt and natural shell in a sheltered location, low levels of farm impact were observed.

Warps are known to have little or no impact on benthic communities (Davidson and Richards, 2014). At this site the benthos under warps appeared relatively natural, with little mussel shell debris present under these structures.

Any effect, be it positive or negative, on king shag and marine mammals would remain unchanged if the farm is reconsented

A small area supporting occasional cobbles were observed in the east under warps. The occasional cobbles do not appear to be impacted form the present farm. No change to the present farm boundary is therefore suggested. Habitats and species associated with the site are typical of sheltered parts of central Pelorus Sound and as such no monitoring is suggested." Davidson Environment Ltd (Report 932, attached)

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.

7.2 The Land Environment

The site is located in eastern Hallam Cove, Central Pelorus Sound.

The adjacent land is zoned Rural 1.

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

The area is cleared pastural land, with a small forestry blocks adjacent to the farm.

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 according to the original Cadastral mapping is inside the conventions established in the Marlborough Sounds Resource Management Plan. However, the inshore boundary is less than 50 metres from the low tide mark using the advanced mapping techniques now available.

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 proceed through the farm and 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 is no registered mooring in the vicinity of the site. The closest mooring is 1.3 kilometres away at the head of the Bay.

The site does not impede access to this mooring.

8.5 Indirect Effects-Servicing vessels at site

The Applicant estimates farming and harvesting vessels will visit the site on an average of 15-20 days a year, for periods of 0.5 to 6 hrs to undertake farm maintenance, seeding and harvesting.

The total number of hours spent on these activities is estimated to be 40-50 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 adjacent to the site is zone Rural 1.

There are no residences directly adjacent to the site.

9.2 Scenic Value

9.2.1 Landscape

The area has been identified within the current 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 nature landscapes and features in the proposed Plan.

Section 6(b) of the Act requires decision makers to recognise as a matter of national importance the protection of outstanding natural features and landscapes (ONFLs) from inappropriate subdivision, use and development. Policy 15(a) of the New Zealand Coastal Policy Statement 2010 (NZCPS) requires adverse effects of activities on ONFLs in the coastal environment to be avoided. NZCPS policy 15(b) requires significant adverse effects from activities on other natural features and natural landscapes in the coastal environment to be avoided, and other adverse effects to be avoided, remedied or mitigated. The operative Marlborough Sounds Resource Management Plan (MSRMP) identifies Areas of Outstanding Landscape Value (AOLV). The application site is within an AOLV.

The proposed Marlborough Environment Plan (MEP) contains landscape overlay maps based on the 2015 Marlborough Landscape Study. While these maps are generally considered to be based on more up-to-date methodology than the MSRMP, they are the subject of a large number of submissions. The application site is not within an ONFL in the MEP.

In assessing whether the proposal is appropriate in the context, we must understand what is sought to be protected, namely the values of the area. The values for each of those areas are listed in the schedules in MEP Appendix 1.

Aquaculture is part of the Marlborough Sounds environment. A marine farm in this location does not interfere with the listed values, because it is consistent with the mixed use/working character of this part of the Sounds, it is low profile in nature and only visible at close range (with visual effects diminishing in some conditions depending on lighting and weather), and will not interfere with significant ecological values, as addressed elsewhere in this application. In addition, Greenshell mussels are naturally occurring in New Zealand and are indigenous. Aquaculture is perhaps the only form of farming where the effects are fully reversible.

On this basis, adverse effects from the activity on identified ONFLs are avoided, consistent with NZCPS policy 15(a); and significant adverse effects on other natural features and natural landscapes are avoided, consistent with NZCPS policy 15(b).

9.2.2 Natural character

The area has not been described as having outstanding, very high or high natural character in the proposed Plan.

9.2.3 Visual Amenity

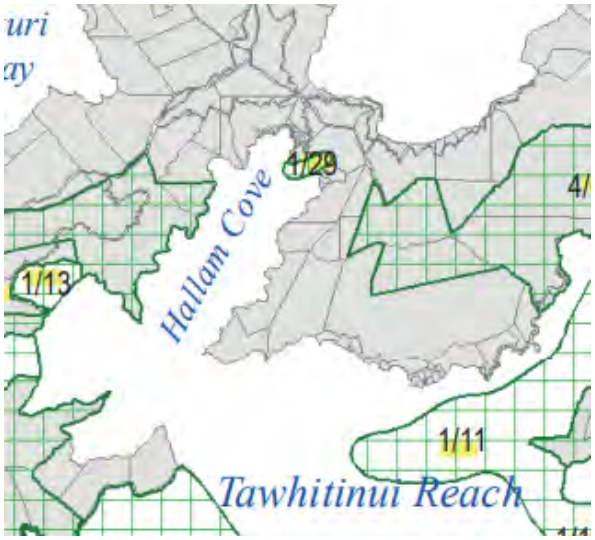
Section 7(c) of the Act requires decision makers to have particular regard to the maintenance and enhancement of amenity values. The entirety of the Marlborough Sounds Coastal Landscape, is mapped as a High Amenity Landscape in the MEP. The values of this amenity landscape are outlined in Appendix A. An individual marine farm at this location will not have an impact on a high amenity landscape of the scale mapped in the MEP.

The area is cleared pastural land, with a small forestry blocks adjacent to the farm.

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

10.0 ECOLOGICAL VALUE

There is ecological value identified in the Marlborough Sounds Resource Management Plan in the area of Site 8188 - 1/13 – Elephant fish spawning grounds (scientific interest), 1/29 - Sponge community. See map below.



There are no ecologically significant marine sites identified in the proposed Plan in the vicinity of the site.

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

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.

The applicant recognises that Ngati Kuia have a special, long, intergenerational association to Te TauIhu o te waka a Maui/Top of the South Island and consider the Te Hoiere/Pelorus to be at the centre of their spheres of occupation and influence, spanning 1,000 years.

Over many centuries Ngati Kuia and their descendants have built paa, kainga, purakau, mapped mahinga kai and built spiritual connections where their people lived and been laid to rest.

"*Te Hoiere awa/moana is Taonga tuku iho ki Tangata Whenua/Ngati Kuia therefore this requires the Crown and its agencies to give recognition to and make provision for the exercise of Kaitiakitanga by whanau, hapu and Iwi who are operating within the Maori Customary and commercial Deeds of Settlement*."[1]

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 Hallam Cove 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 is consented for 8 long lines and the farm structures presently consist of 8 long lines 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 8188 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 932.

No specific sites of marine ecological significance have been identified in the Davidson Environmental Limited Report 932.

16.0 EFFECTS ON PRODUCTIVITY

Water quality is unlikely to be a problem for mussel farming in Hallam Cove. The continuing activity itself is unlikely to create any significant detrimental effects on water quality.

Exert from Davidson Environmental Limited Report (Benthic Report 932, refer attached).

"7.7.2 Productivity
Mussel farms can influence adjacent farms by slowing water flow to farms located in downstream positions (Ogilvie, 2000). 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 the ecological carrying capacity of the Sounds has been reached, however, this topic is not well researched. There is considerable evidence showing 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 Fitzroy Complex are very low (Broekhuizen, 2015). Winds are likely to be a significant driver of water movement in this area, especially during north-west weather events. The farm is well distant to the main channel making water turnover times long compared to bays close to the main reach of Pelorus Sound.

Based on these considerations and the existing literature, it is very probable the site will cause phytoplankton depletion inside its boundaries. The present reconsenting application does, however, represent no change to the number of consented lines and therefore represents no change to phytoplankton predation and water flows in the bay."

17.0 THE BENTHIC ENVIRONMENT

In terms of the benthic environment, the ecology of this area has been documented in Davidson Environmental Ltd Report 932 (refer to 7.1 above).

The farm structures are located over habitat considered suitable for this type of activity. No monitoring appeared to be necessary.

The applicant is mindful of the need to consider the cumulative effects of this farm over time and in combination with other effects, as required by s 3(d) of the Act. The effects of a farm at this specific location are assessed elsewhere in this assessment of environmental effects.

The aquaculture industry has contributed and is contributing to a better understanding of cumulative effects on a number of fronts, including:

(a) The Marine Farming Association co-funded the 2017 NIWA history of seabed change in Pelorus Sound project;[2]

(b) A king shag working group has been formed to draft and implement an *Action Plan and Research Strategy for the NZ King Shag*, which involves several stakeholders, including government departments and industry;
(c) King shag population counts are undertaken by aerial survey as part of New Zealand King Salmon's consent conditions;
(d) Many benthic surveys have been conducted throughout the Sounds as part of marine farm consent applications. This has contributed to our overall understanding of Marlborough's marine environment;
(e) Water quality monitoring is undertaken as part of the Marlborough Shellfish Quality Programme; and
(f) Fisheries Resource Impact Assessments (FRIA) were collective industry-led bay by bay assessments on the impacts of aquaculture on fisheries resources.

The applicant continues to support the industry's collective response to these issues.

Aquaculture is part of the Marlborough Sounds environment. We cannot look at this application in isolation from its wider environment. We know that the marine environment in the Sounds has been modified by human activities, including physical disturbance from historical dredging and trawling, as well as from catchment effects such as historic land clearance.[3] In a relative sense, we know that aquaculture is having less of an impact on the marine environment than many anthropogenic stressors, including climate change, ocean acidification, sedimentation from land-based activities, dredging and trawling, and coastal engineering.[4]

We also know that mussel farms provide benefits or "ecosystem services." Farmed mussels have replaced the natural mussel beds that were present throughout the Pelorus Sound in the 1960s prior to extensive commercial dredging.[5] Mussels remove nutrients derived from land-use practices.

The applicant agrees with other stakeholders who are calling for a strategic assessment of cumulative effects.[6] That exercise is required by policy 7(2) of the New Zealand Coastal Policy Statement 2010. It is more than can be expected of one applicant. It is best undertaken via the proposed Marlborough Environment Plan process, or in partnership with local and central government.

18.0 ALIENATION OF PUBLIC SPACE

The general area of this part of Pelorus Sound has been utilised by marine farmers in excess of 38 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 farm work is undertaken by the applicants and the harvesting is completed by United Fisheries and Clearwater Mussels Limited who already have onshore marine farm facilities based in Havelock.

21.0 VALUE OF INVESTMENT

As part of this Application to renew site 8188, the Applicant is seeking to re-consent the site 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 original existing site has been held by the applicant since 2013. From that time the applicant has expended significantly on the establishment and maintenance of the farm.

The farm produces approximately 150 tonnes per annum ($1,450/ Green Weight Tonne (GWT)) and after processing the final ½ shell product would be sold on the export market at approximately $435,000. Approximately 95% of mussel products are exported. All lines are restocked after harvest to achieve 150 GWT/per annum harvests.

The mussels are processed in Christchurch and Blenheim where they provide a critical part of the production to maintain processing to the factory.

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 been identified within the current Marlborough Sounds Resource Management Plan as being an area of outstanding natural landscape value. 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.

The area has not been described as an area of outstanding nature landscapes and features in the proposed Plan, these assessments were made with the farms already in place and operational. There was no direction given in the plan that the marine farms should be removed for the area to be assessed as having outstanding nature landscapes and features.

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

The adjacent vegetation next to the farm is cleared pastural land, with a small forestry blocks adjacent to the farm.

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 Applicant will continue to discuss this 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.

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 recognises that Ngati Kuia have a special, long, intergenerational association to Te TauIhu o te waka a Maui/Top of the South Island and consider the Te Hoiere/Pelorus to be at the centre of their spheres of occupation and influence, spanning 1,000 years.

Over many centuries Ngati Kuia and their descendants have built paa, kainga, purakau, mapped mahinga kai and built spiritual connections where their people lived and been laid to rest.

"*Te Hoiere awa/moana is Taonga tuku iho ki Tangata Whenua/Ngati Kuia therefore this requires the Crown and its agencies to give recognition to and make provision for the exercise of Kaitiakitanga by whanau, hapu and Iwi who are operating within the Maori Customary and commercial Deeds of Settlement*.[7]"

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

23.2 Policy 6

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

The farm is 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 Hallam Cove.

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.

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 current Marlborough Sounds Resource Management Plan as being an area of outstanding natural character.

The area has not been described as an area of outstanding or very high or high 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 is no registered mooring in the vicinity of the site.

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

An e-mail 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

A statement from Ngai Kuia has been included in sections 12 and 23.1 of this report.

26.0 CONCLUSION

The Applicant considers that the renewal of site 8188 is appropriate, thereby allowing the continued farming of Greenshell mussels at the site.

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

7.2.7 The subdivision use and development, of the coastal environment, in a sustainable way.	7.2.8: Ensure the appropriate subdivision, use and development of the coastal environment.	The marine farm is within a bay with other marine farms. The marine farm's activity is biologically sustainable.
	7.2.10(a) - (d)	The marine farm is located within the consented area which is permitted for marine farming.
7.3.2: Buildings, sites, trees and locations identified as having significant cultural or heritage value are retained for the continued benefit of the community.	7.3.3: Protect identified significant cultural and heritage features	No sites of cultural or heritage significance have been identified on the area of the application site
8.1.2: The maintenance and enhancement of the visual character of indigenous, working and built landscapes.	8.1.3: Avoid, remedy or mitigate the damage of identified outstanding landscape features arising from the effects of excavation, disturbance of vegetation, or erection of structures.	There will be no further impact on the landscape than those already permitted 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. The farm is well managed and complies with the Greenshell Mussel Environmental Code of Practice.
	8.1.5: Promote enhancement of the nature and character of indigenous, working, and built landscapes by all activities which use land and water.	The marine farm will have no additional impact on landscape values.
	8.1.6: Preserve the natural character of the coastal environment.	The site will have no additional impact on the 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 of the natural character of the coastal environment, wetlands, lakes, and rivers and their margins and the protection of them from inappropriate subdivision, use and development.	Policy 1.1: Avoid the adverse effects of subdivision, use or development within those areas of the coastal environment and freshwater bodies which are predominantly in their natural state and have natural character which has not been compromised.	This application is set in an area which is cleared pasture land. The marine farm is within a bay with other marine farms.
	Policy 1.2: Appropriate use and development will be encouraged in areas where the natural character of the coastal environment has already been compromised, and where the adverse effects of such activities can be avoided, remedied or mitigated.	Refer above.
	Policy 1.3: To consider the effects on those qualities, elements and features which contribute to natural 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.	These matters have been considered in the assessment of environmental effects.
	Policy 1.4: In assessing the actual or potential effects of subdivision, use or development on natural character of the coastal and freshwater environments, particular regard shall be had to the policies in Chapters, 3, 4, 5, 6, 12, 13 and Sections 9.2.1, 9.3.2 and 9.4.1 in recognition of the components of natural character.	The application will not have any additional impact on the components of these policies which impact natural character values.

	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. An initial letter has been sent to all Iwi identifying the site prior to the application being submitted.
Ch 8, 8.3, Obj 1: That public access *to and along* the coastal marine area, lakes and rivers be maintained and enhanced.	Policy 1.2: Adverse effects on public access caused by the erection of structures, marine farms, works or activities in or along the coastal marine area should as far as practicable be avoided. Where complete avoidance is not practicable, the adverse effects	There are no additional adverse effects on public access caused by the marine farm.

	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.	There are no additional adverse effects on public access caused by the marine farm.
	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].	There are no additional adverse effects on public access caused by the marine farm.
Ch 9, 9.2.1, Obj 1: The accommodation of appropriate activities in the coastal marine area whilst avoiding, remedying or mitigating the adverse effects of those activities.	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; j) Public health and safety; k) Recreation values; and l) Water quality.	The way in which adverse effects on the stated values will be avoided, remedied and mitigated is addressed elsewhere in the assessment of environmental effects. Overall, the proposal is consistent with this policy.
	Policy 1.2: Adverse effects of subdivision, use or development in the coastal environment should as far as practicable be avoided. Where complete avoidance is not practicable, the adverse effects should be mitigated and provision made for remedying those effects to the extent practicable.	The marine farm is within a bay with other marine farms. There are no additional adverse effects on the coastal environment from this farm. The navigational lighting requirements will not change from the existing consent.

	Policy 1.3: Exclusive occupation of the coastal marine area or occupation which effectively excludes the public will only be allowed to the extent reasonably necessary to carry out the activity.	Consistent with other marine farms in the Marlborough Sounds, exclusive occupation of the consent area is not sought, other than for the area physically occupied by the lines and anchoring devices.
	Policy 1.6: Ensure recreational interests retain a dominant status over commercial activities that require occupation of coastal space and which preclude recreational use in Queen Charlotte Sound, including Tory Channel, but excluding Port and Marina Zones.	Not applicable
	Policy 1.7: Avoid adverse effects from the occupation of coastal space in or around recognised casual mooring areas.	Exclusive occupation of the consent area is not sought. There are no moorings located in the direct vicinity of the farm.
	Policy 1.12: To enable a range of activities in appropriate places in the waters of the Sounds including marine farming, tourism and recreation.	Policy 1.12 enables marine farming in appropriate places. Site 8188 is consented for marine farming, there are other marine farms consented in the bay.
	Policy 1.13: Enable the renewal as controlled 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.	NA
Ch 9, 9.3.2, Obj 1: Management of the effects of activities so that water quality in the coastal marine area is at a level which enables the gathering or cultivating of shellfish for human consumption (Class SG).	Policies 1.1 to 1.11	This application is not anticipated to have any impact on shellfish quality.
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	There will be no additional disturbances of the seabed.

	and/or seabed on any of the following: [criteria specified in Plan].	
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.	The closest resident is 1.3 kilometres from the farm. A servicing vessel is estimated to spend approximately 40-50 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.
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 re-assessed 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 site 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;	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
(v) recognising that existing structures may contribute to the landscape character of an area and additional structures may complement this contribution; (vi) making use of existing vegetation as a background and utilising new vegetation as a screen to reduce the visual impact of built form on the surrounding landscape, providing that the vegetation used is also in keeping with the surrounding landscape character; and (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]	The proposed farm will be able to be accessed from the existing facilities of a contractor or lessee.
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;	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
(b) the need for the activity/structure to be located in the coastal marine area and why it 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. [C, D]	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).
15.1.12 – After considering Policies 15.1.10 and 15.1.11, approve discharge permit applications to discharge contaminants into water where: (a) the discharge complies with the water quality classification standards set for the waterbody, after reasonable mixing; or (b) in the case of non-compliance with the water quality classification standards set for the waterbody: (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 (ii) the degree of non-compliance will not give rise to significant adverse effects. [RPS, R, C]	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: (a) Up to a maximum of 15 years for discharges into waterbodies or coastal waters where the discharge will comply with water quality classification standards for the waterbody or coastal waters; … (c) no more than five years where the existing discharge will not comply with water quality classification standards for the waterbody or coastal waters. With the exception of regionally significant infrastructure, no discharge permit will be granted subsequent to the one granted under (c), if the discharge still does not meet the water quality classification standards for the waterbody or coastal waters. [R, C]	This policy is inconsistent with s 123A of the Resource Management Act, which provides for a minimum 20-year term for coastal permits authorising aquaculture activities, unless a shorter period is required to ensure that adverse effects on the environment are adequately managed. This high threshold is not met in these circumstances. It is illogical to allow for a marine farming permit for 20 years and restrict a discharge permit for harvesting to 15 years. The applicant is seeking 20-year resource consent. The AEE suggests that this term in appropriate in these circumstances.

Footnotes

[1] Raymond Smith – Ngati Kuia

[2] Handley, S. et al. 2017. A 1,000 year history of seabed change in Pelorus Sound/Te Hoiere, Marlborough. Prepared for Marlborough District Council, Ministry of Primary Industries and the Marine Farming Association. 136 p. NIWA Client Report No: 2016119NE.A copy is available here: https://www.marlborough.govt.nz/repository/libraries/id:1w1mps0ir17q9sgxanf9/hierarchy/Documents/Environment/Coastal/Scientific%20Investigations%20List/A_1000_year_history_of_seabed_change_in_Pelorus_Sound_Te_Hoiere.pdf

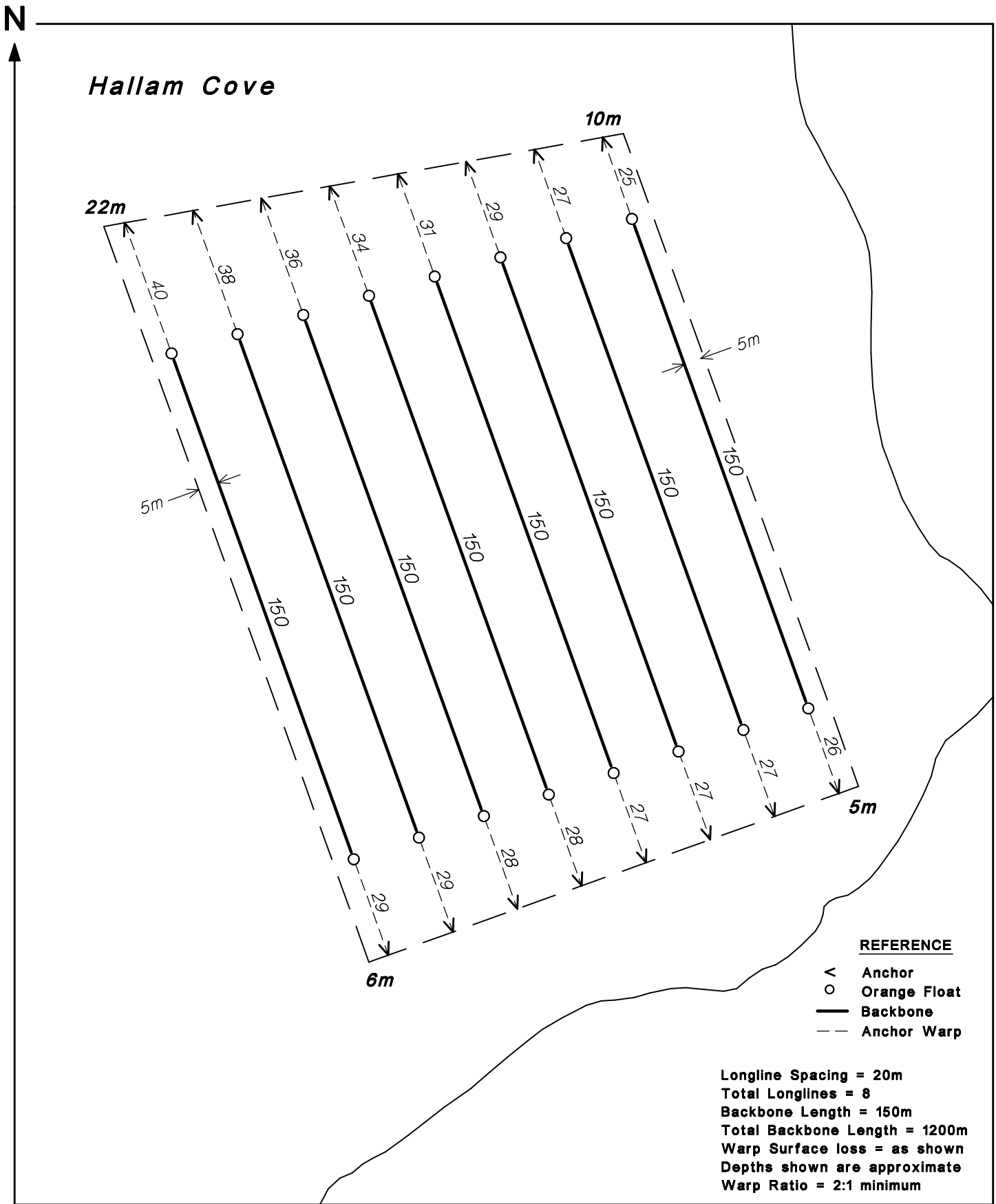
[3] Handley, S. 2016. History of benthic change in Queen Charlotte Sound/Totaranui, Marlborough. Prepared for Marlborough District Council. NIWA client report No: NEL2015-018: https://www.marlborough.govt.nz/repository/libraries/id:1w1mps0ir17q9sgxanf9/hierarchy/Documents/Environment/Coastal/Scientific%20Investigations%20List/History_of_Benthic_Change_in_Queen_Charlotte_Sound_Totaranui_Marlborough.pdf; and Handley, S. 2015. The history of benthic change in Pelorus Sound (Te Horiere), Marlborough. Prepared by NIWA for Marlborough District Council. NIWA client report NEL2015-001, NIWA project ELF15202: https://www.marlborough.govt.nz/repository/libraries/id:1w1mps0ir17q9sgxanf9/hierarchy/Documents/Environment/Coastal/Scientific%20Investigations%20List/HistorySeabedChangePelorusSound.pdf.

[4] MacDiarmid, A.; McKenzie, A.; Sturman, J.; Beaumont, J.; Mikaloff-Fletcher, S.; Dunne, J. (2012). Assessment of Anthropogenic Threats to New Zealand Marine Habitats, New Zealand Aquatic Environment and Biodiversity Report No. 93, 2012; and Ministry for the Environment & Statistics New Zealand (2016) *New Zealand's Environmental Reporting Series: Our marine environment 2016* at 24. A copy is available here: http://www.mfe.govt.nz/sites/default/files/media/Environmental%20reporting/our-marine-environment.pdf

[5] Handley et al 2017 *History of seabed change* at p 25.

[6] For example Ministry for Primary Industries *Literature Review of Ecological Effects of Aquaculture – Cumulative Effects* (August 2013, Cawthron Institute/NIWA), at pp 12-3 to 12-4; Stewart, B. *Mussel Farming in Central Pelorus Sound* (Ryder Consulting, 3 December 2015, prepared for the Kenepuru and Central Sounds Residents Association) at [50]; and Further Submissions of the Marine Farming Association and Aquaculture New Zealand Limited on the proposed Marlborough Environment Plan (23 June 2017), at points 66, 73 and 78.

[7] Raymond Smith – Ngai Kuia



aquaculture direct

Structure Layout
Marine Farm Site 8188
Hallam Cove

SCALE 1:1,500

25 0 25 50 75 100m

20 November 2019
MF_2663a

C:\General CADD 12\Gxd\Marine Farming\MF_2663a.gxd -- 11/20/2019 -- 09:12 AM -- Scale 1 : 1500

Topomap 50 Sheet: BP28

Base Topographical Data sourced from Land Information New Zealand data service (www.data.linz.govt.nz) and Licenced for re-use under Creative Comons Attribution 4.0 International Licence.

aquaculture direct

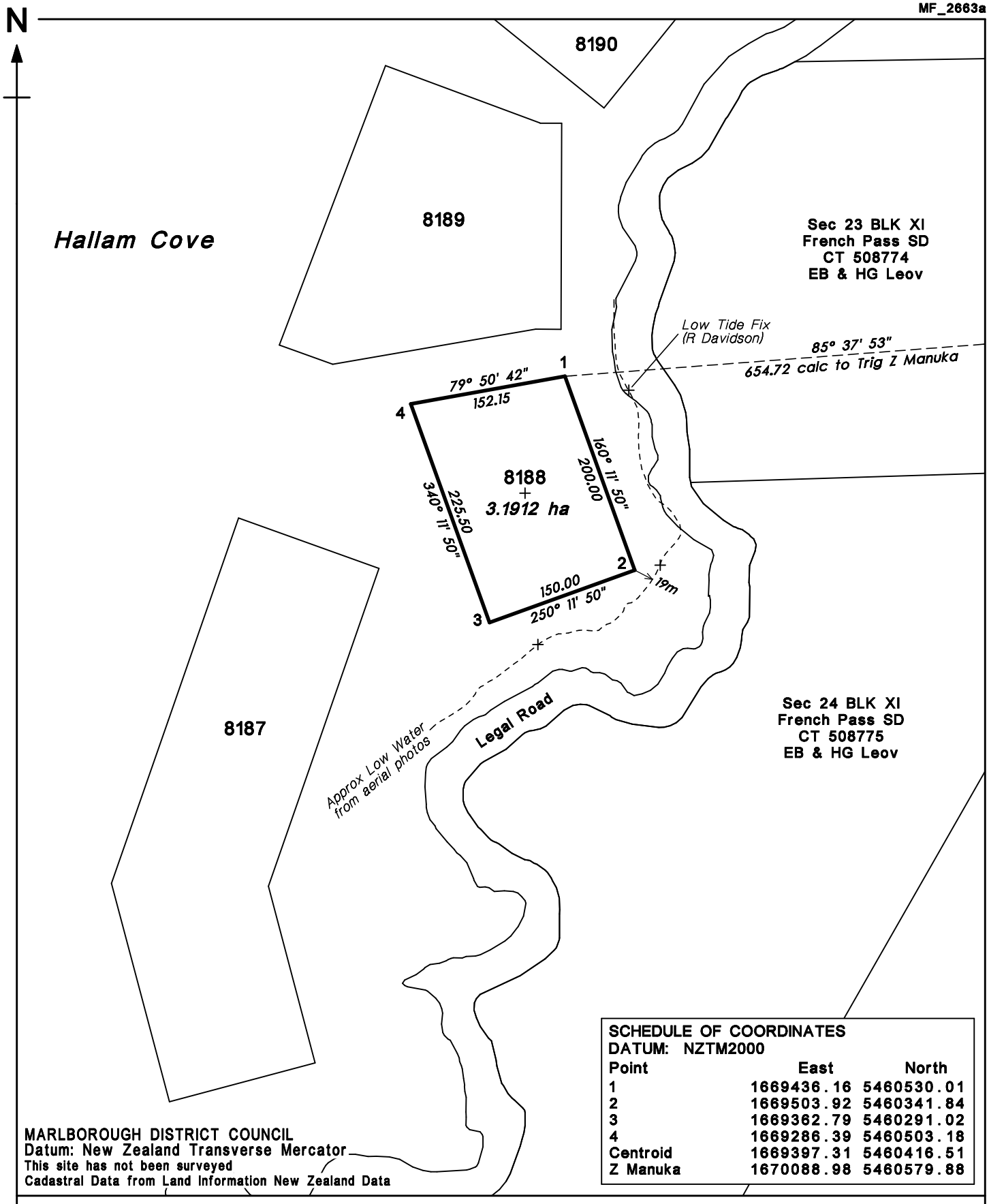
Prepared
20 November 2019

Locality Map

Renewal of Marine Farm 8188
Hallam Cove

Scale 1:50,000

500 0 500 1000 1500 2000 2500 3000 3500 Meters



SCHEDULE OF COORDINATES
DATUM: NZTM2000

Point	East	North
1	1669436.16	5460530.01
2	1669503.92	5460341.84
3	1669362.79	5460291.02
4	1669286.39	5460503.18
Centroid	1669397.31	5460416.51
Z Manuka	1670088.98	5460579.88

MARLBOROUGH DISTRICT COUNCIL
Datum: New Zealand Transverse Mercator
This site has not been surveyed
Cadastral Data from Land Information New Zealand Data

aquaculture direct

Proposed Coastal Permit

Renewal of Marine Farm 8188

Hallam Cove

SCALE 1:5,000

50 0 100 200 300 400m

20 November 2019
MF_2663a

Davidson Environmental Limited

Biological report for the reconsenting of marine farm 8188 in Hallam Cove, Fitzroy Bay complex, Pelorus Sound

Research, survey and monitoring report number 932

A report prepared for:
A & S King Family Trusts & McLaren Family Trust

February 2019

Bibliographic reference:

Davidson, R.J.; Richards, L.A. Rayes, C.; Scott-Simmonds, T. 2019. Biological report for the reconsenting of marine farm 8957 in Hallam Cove, Fitzroy Bay complex, Pelorus Sound. Prepared by Davidson Environmental Ltd. for A & S King Family Trusts & McLaren Family Trust. Survey and monitoring report no. 932.

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February 2019

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1.0 Preface

The present report provides biological information for a proposed reconsent of an existing marine farm in Hallam Cove, Fitzroy Bay Complex, Pelorus Sound. The farm is owned by A & S King Family Trusts & McLaren Family Trust.

2.0 Background information

2.1 Fitzroy Complex

The Fitzroy Complex comprises four major bays (Hallam Cove, Canoe, Savill and Garne Bays) and is located at the western end of Tennyson Inlet. Fitzroy Bay is 880 ha and has a coastline of approximately 23.3 km. Fitzroy Complex is subjected to light tidal currents as the bays are all blind. Offshore subtidal areas are relatively flat and dominated by mud. The bay edges are composed of mostly cobble and boulder shores with intermittent bedrock substrata usually located near or at headlands. Areas of granule and shell coarse sand are located at some bay heads and subtidal areas immediately below the cobble banks.

Figure 1. Location of Fitzroy Complex at the western end of Tawhitinui Reach, Pelorus Sound.

2.2 Marine farming

There are 16 shellfish farms in Fitzroy Complex (Figure 2). Shellfish marine farm consents are predominantly used for farming mussels, however there are two designated spat farms.

Figure 2. Marine farms located along Tawhitinui Reach.

2.3 Catchments

The adjacent land and catchments are combinations of pasture, regenerating and mature native vegetation. Reserves are located at Garne and Savill Bays and Mt. Shewell. The remainder of land is in private ownership. Forestry blocks are located at the head of Hallam Cove and at two small areas on the eastern coast of Hallam Cove.

2.4 Fishing

Commercial fishing in Fitzroy Complex is absent (Figure 3a). Dredging during the scallop season regularly occurs further east but not within Fitzroy Complex mostly (Figure 3a). Trawl event data show that a trawling does not occur (Figure 3b). No data is available on recreational fishing, however, based on observations it is a regular occurrence at and around headlands.

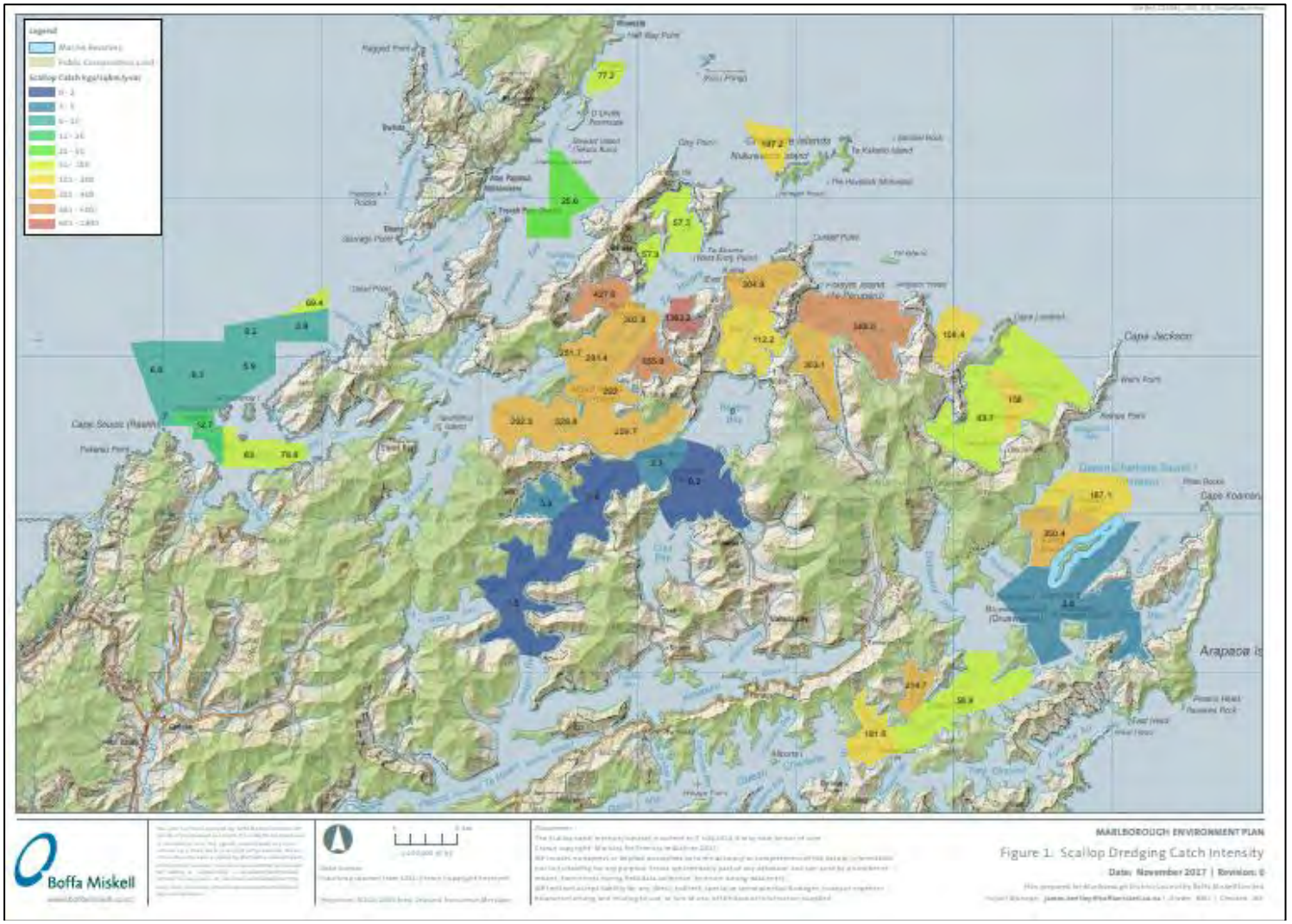

Figure 3a. Scallop catch data to July 2014 (from Boffa Miskell maps produced for MDC Coastal Plan).

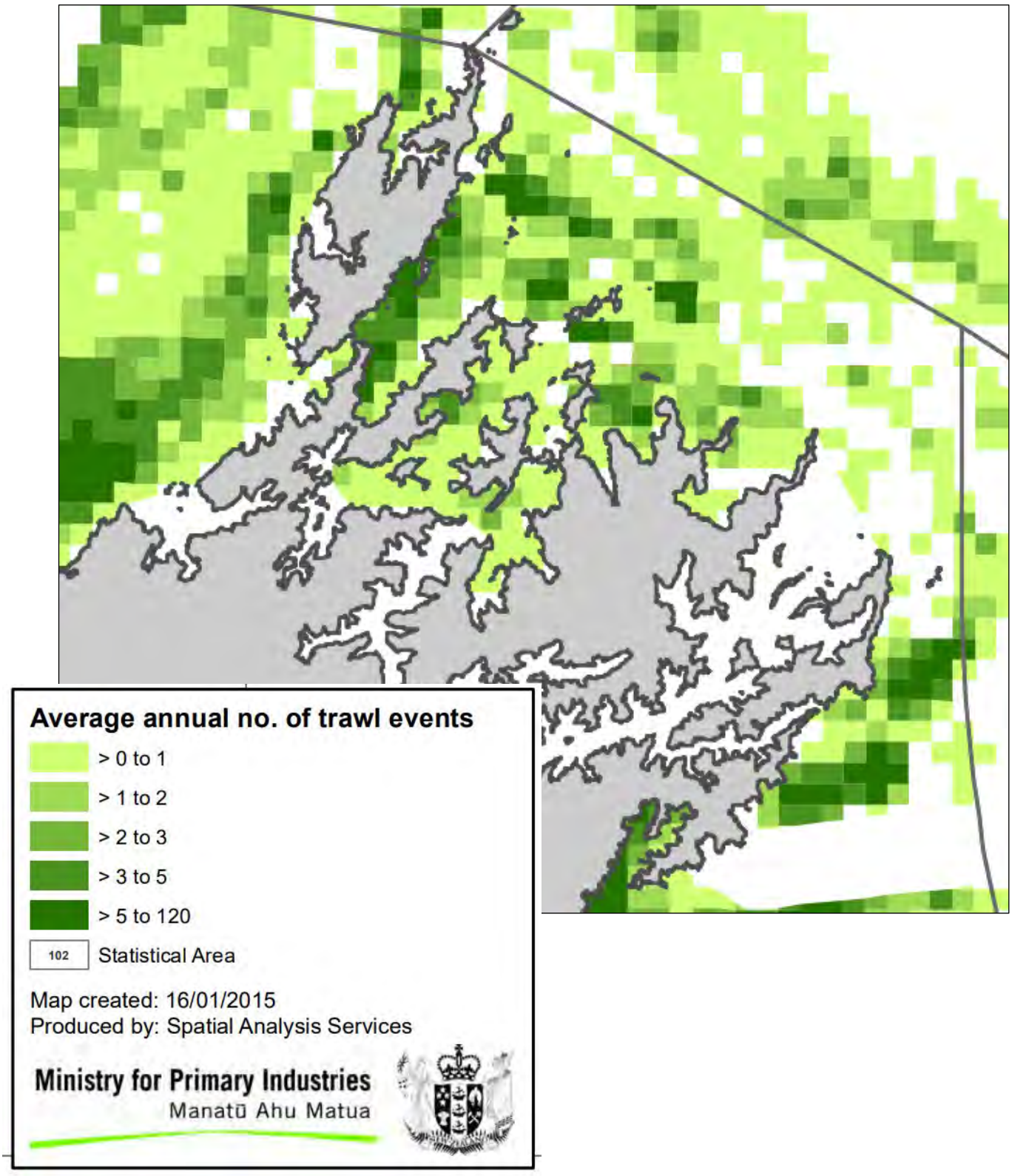

Figure 3b. Average annual number of trawl events (from Boffa Miskell maps produced for MDC Coastal Plan). The annual number of trawl events is shown for the position where each trawl event started, averaged for all events starting in each 1 nautical mile grid cell and for six fishing years 2007-13.

2.5 Existing biological studies and data

Many studies and investigations have occurred in Fitzroy Complex (Figure 4). Most data points have been commissioned by the marine farm industry, particularly in relation to new farms and extension applications. There are also a small number of species, habitat or community-based studies.

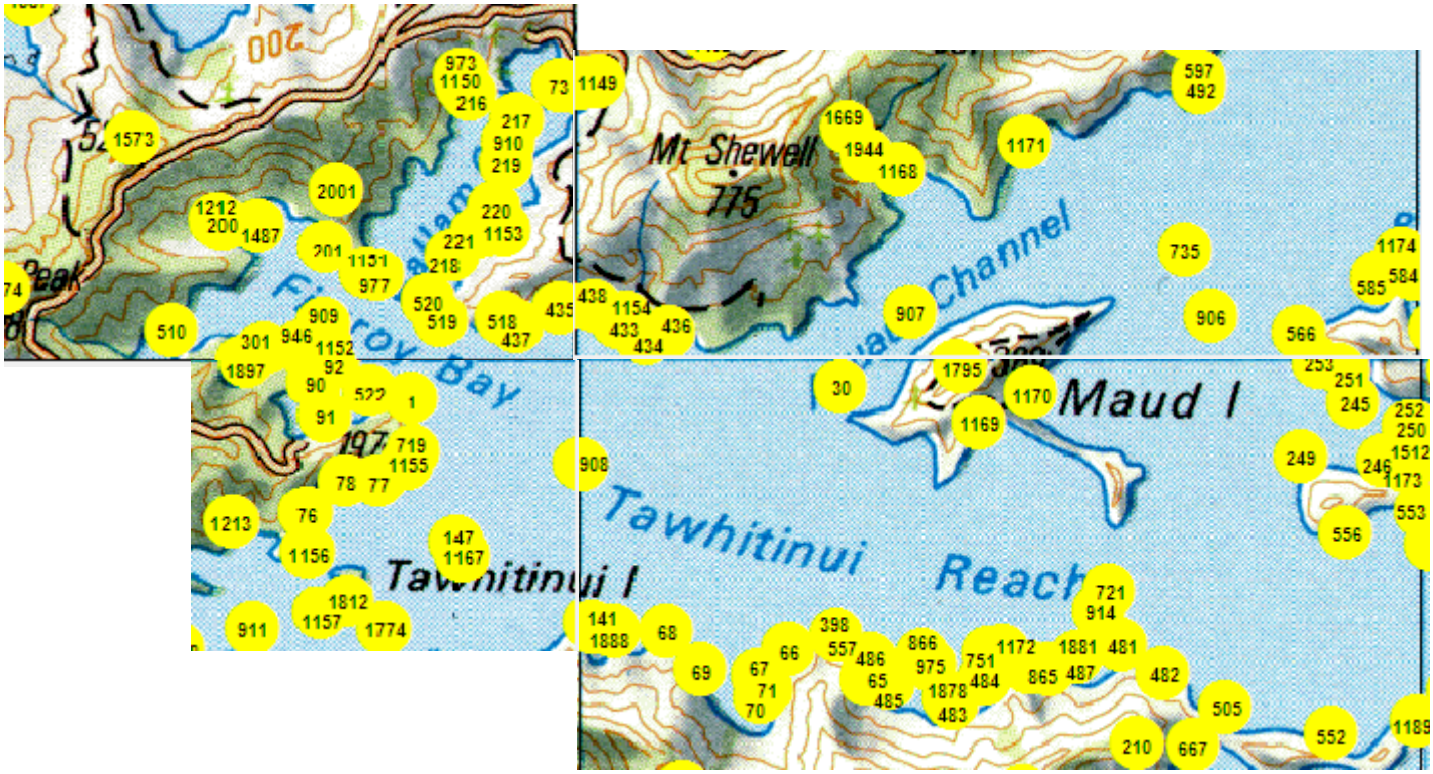

Figure 4. Summary of existing studies from Fitzroy Complex and Tawhitinui Reach.

2.6 Significant sites

There is one large significant site located around much of the Fitzroy Complex shoreline (Figure 5).

Significant site 3.8 (Elephantfish spawning)

Davidson *et al*. (2018) stated:

"The shallow edges of these bays are used as spawning grounds by elephantfish, *Callorhinchus milii*. This is one of two regularly used spawning areas in the Marlborough Sounds (Davidson *et al*., 2011). Based on the present study, the area supporting suitable benthic spawning habitat in Fitzroy Bay complex was reduced in size by 160 ha compared with the area described in Davidson *et al*. (2011). Deep and shallow areas that did not support suitable habitat were removed from the significant site polygon. In addition, divers collected elephantfish egg case density from 12 replicate 10m^2 quadrats in each of Garne and Savill Bays. The density of live and dead cases was compared with data collected by Davidson Environmental Ltd. in 1996. Overall, the density of both live and dead cases was lower in 2018 compared to the previous sample. Divers observed only three live cases in Garne Bay quadrats and only one live egg case in Savill Bay quadrats."

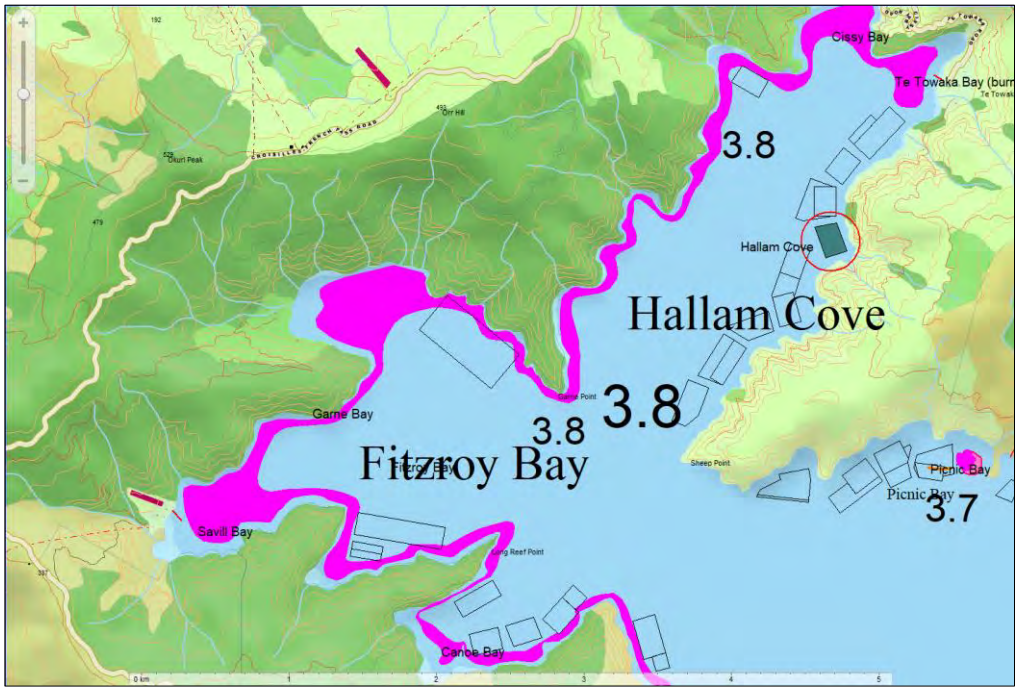

Figure 5. Known significant sites in Fitzroy Complex (red polygons).

2.7 Marine mammals

At least five marine mammal species regularly and/or seasonally transit through Pelorus and the western regions of the outer Sounds (see Slooten *et al*. 2002, Markowitz *et al.* 2004, Merrimen *et al*. 2009, Clement and Halliday, 2014). These species include the New Zealand fur seal (*Arctocephalus forsteri*), bottlenose dolphin (*Tursiops truncatus*), dusky dolphin (*Lagenorhynchus obscurus*), common dolphin (*Delphinus delphis/capensis*) and orca (killer whales - *Orcinus orca*).

Several studies have aimed at investigating marine mammal interactions with aquaculture (Markowitz *et al*., 2004; Vaughn *et al.,* 2007; Pearson *et al.,* 2012), Department of Conservation (e.g. B. Lloyd unpubl. data; Merriman, 2007) and aquaculture-funded research (Clement and Halliday, 2014).

Low numbers of New Zealand fur seals (status = not threatened) can be observed year-round within central Pelorus Sound.

Bottlenose dolphins (status = Nationally endangered: Baker *et al*., 2010) is the species most consistently observed within Pelorus Sound (authors, pers. obs.). A semi-residential population of animals is known to associate with the Marlborough Sounds region for most of the year, regularly and systematically moving from one end of the Sounds to another (Merriman *et al*., 2009). Bottlenose dolphins within the Sounds represent one of three isolated subpopulations around New Zealand's coastline; the others are found along the northeast coast of the North Island and within Fiordland in the south-west of the South Island. This species nationally endangered status is due to their restricted ranges and the fact that the other two sub-populations have reported general population declines over the last decade. Such factors make this species potentially more vulnerable to disturbance or changes within their distribution range (D. Clement, pers. comm.).

Starting in 1998, Markowitz *et al*. (2004) studied dusky dolphin (status – not threatened) presence within the Marlborough Sounds, and in particular Admiralty Bay. The authors found that the number of dusky dolphins increased significantly over the winter months and are periodically seen inside Pelorus Sound.

While no studies have focused specifically on the presence of common dolphins (status = not threatened) in outer Pelorus, Clement and Halliday (2014) suggest that outer Sounds bays

such as Admiralty may serve as important habitat for at least a proportion of the common dolphin population found around New Zealand. Common dolphins appear most abundant in the outer Sounds bays during mid- to late winter and early spring, often coinciding with dusky dolphins while in the region (Clement and Halliday, 2014). Seasonal trends and the high re-sighting rates of identified individuals within the area over consecutive seasons and years indicates that common dolphins are either seasonally migrating to this region (i.e. like dusky dolphins) or use it as part of a large home range, like bottlenose dolphins (D. Clement, pers. comm.).

Fitzroy Complex has not been ranked as a significant site for marine mammals.

2.8 King shag

King shag is one of the world's rarest seabird species. The species is endemic to the Marlborough Sounds, and is seldom observed outside of this region. The species nests at a small number of colonies, usually on rock stacks that are separate from the mainland, however there are two mainland colonies presently used by birds (Hunia and Tawhitinui Bay). Most historical counts have been undertaken by boats, however, most recent surveys have been aerially surveyed and photographed during the breeding seasons of 2016 (2 surveys), 2017 and 2018 (Schuckard *et al*., 2015; 2018). The most recent count has shown a 24% decline in the number of adult birds (Schuckard, 2018). The total number of nests range from 187 in 2015 to 89 (June 2016), 117 (July 2016) and 153 nests June 2017 (Schuckard, 2018). No or very few nests have been recorded from the colony in Admiralty Bay at Stewart Island. Schuckard (2017) identified concentrations of feeding activity in eastern Tawhitinui Reach with some foraging along the western end of the Reach (Figure 6). Diet studies have shown that king shags feed on a variety of fish. Lalas and Brown (1998) recorded 683 prey items of which flatfish accounted for 90% of items.

Based on the 2017 foraging mat (Figure 6) the Fitzroy Complex is used by foraging king shag but it is at a low intensity.

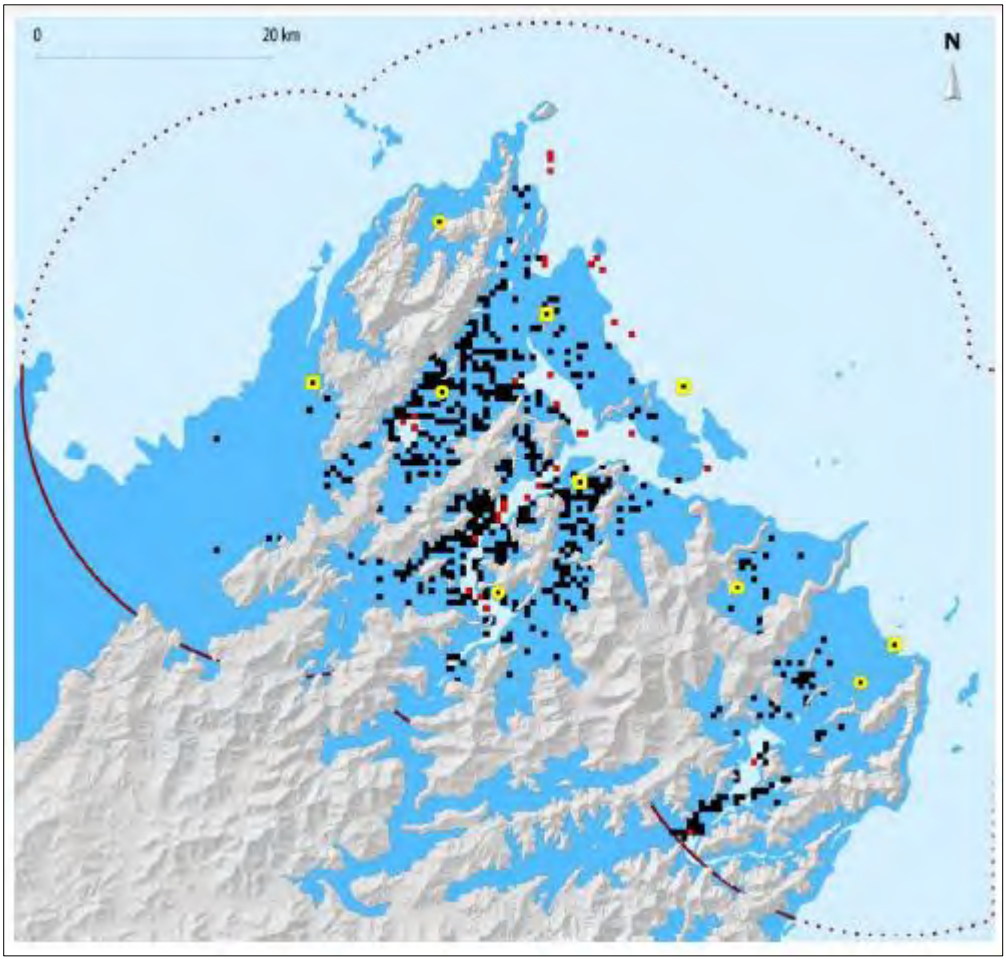

Figure 6. Distribution of foraging by king shags in the Marlborough Sounds. Figure from Schuckard (2017, unpublished evidence).

2.9 Benthic

Duffy *et al.* (in prep) qualitatively described the biota from 360 sites around the Marlborough Sounds including Tawhitinui Reach. Tidal currents are light, and the biota are typical of sheltered areas of central Pelorus Sound. Where current are present, offshore soft bottom areas support some shell. Coarse soft substratum is also present at the foot of the cobble bank around much of this complex of bays and this is used by elephantfish as spawning sites. In most offshore areas mud is widespread. Macroalgae is uncommon and when present is restricted to a narrow band around low tide.

Duffy *et al.* (in prep) found rocky reef sample sites were grouped with their Site Group 1. This was the largest group with 11 sub-groups including Queen Charlotte Sound (34 sites) Pelorus (31 sites), Port Hardy (2), Admiralty Bay (8), Cherry Bay at D'Urville Island (1), Squally Cove in Croisilles (1), Catherine Cove (2), Guards Bay (2), Anakoha Bay (2) and Forsyth Island (5). The most common rocky habitat type was cobble banks. Although the group had few indicator species, it was the most species-rich of the inner sounds site groups (average 31 species per site). Duffy *et al*. (in prep) stated the best indicator species were *Maoricolpus roseus*, *Galeolaria hystrix* and *Forsterygion lapillum*.

3.0 Marine farm 8188

The present report provides biological information in relation to marine farm 8188 located in eastern Hallam Cove, central Pelorus Sound (Figure 7, Plate 1).

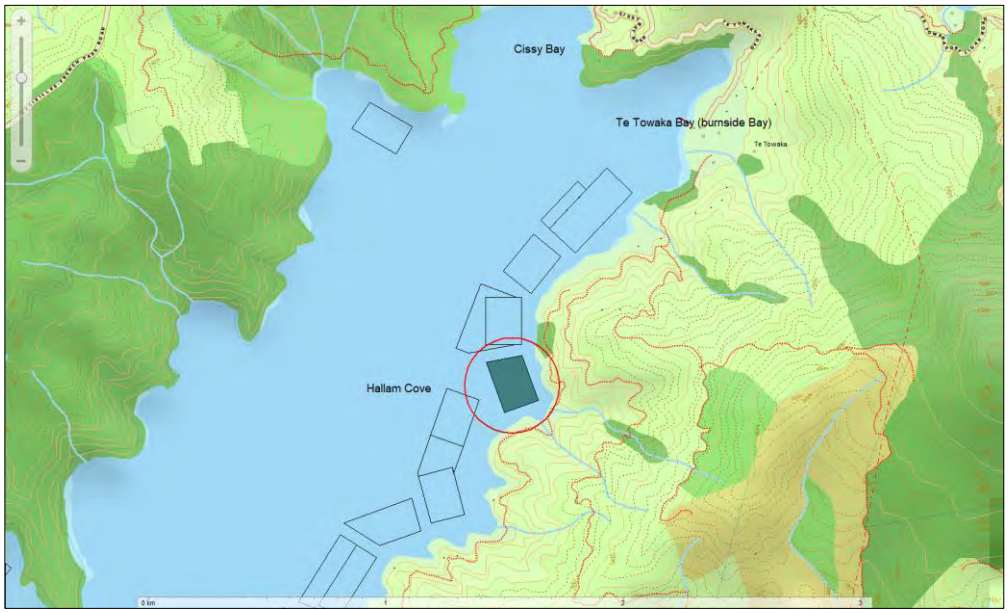

Figure 7. Proposed reconsenting marine farm site (teal) in Pelorus Sound and other marine farms in the area.

3.1 Summary

Marine farm number:	8188
Owner:	A & S King Family Trusts & McLaren Family Trust
Location:	Eastern Hallam Cove, Pelorus Sound
MPI exclusion area present:	No
Consented size:	3.1912 ha
Proposed size:	3.1912 ha
Low tide distance:	Boundary is <50 m from the low tide mark.
Changes suggested:	None. Occasional cobbles located under warps and anchors in the east.
Reason for suggested changes:	Cobbles not impacted.

Plate 1. Looking south eastwards through the existing backbone lines of farm 8188 with the western end of Tawhitinui Reach in the far-right background. Photo taken from a position north-west of the inshore backbone.

4.0 Historical reports

No historical reports were found in relation to the farm.

5.0 Methods (present survey)

The area was investigated on 29th January 2019. 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 is 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.

5.1 Sonar imaging

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

Prior to the collection of underwater photographs, the boundaries of both the consent area and the marine farm surface structure area were investigated using the sonar. Any bottom abnormalities such as reefs, hard substrata or abrupt changes in depth were noted for inspection using the drop camera (see section 5.2).

5.2 Drop camera stations, mussel debris and low tide

A total of 24 drop camera photographs were collected from the farm (including alongside droppers and warps) and adjacent areas inside and offshore of the consent. At each drop camera station, a Sea Viewer underwater splash camera fixed to an aluminium frame was lowered to the benthos and an oblique still photograph was collected where the frame landed.

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. Percentage cover of mussel shell was also estimated by a trained observer viewing drop camera photographs.

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 strategic locations inshore of the consent. The survey vessel was positioned over the low water mark and the position plotted using the mapping software. Low tide was visually determined using the transition between intertidal and subtidal species. This process was also guided by the known state of the tide at the time of the inspection.

6.0 Results

On the day of the survey, the tide was low at 10.48 am (1.2 m) and high at 5.13 pm (2.6 m). During fieldwork, the tide was incoming. In general, mean water currents at this site are low and approximately < 0.03 m/sec (Broekhuizen *et al*., 2015).

During the present study no tidal flow was observed.

6.1 Consent corners and surface structures

The inshore corner depths of the consent area ranged from 5 m to 9.9 m. Offshore boundaries of the consent area ranged from 6 m to 22.1 m depth (Table 1, Figure 10). Existing

surface structures consisted of one block of backbones covering a total area of approximately 2.4 ha. Most surface structures were located inside the consent apart from the offshore line that was located outside but close to the consent boundary (i.e. 8 m distance).

The distance between low tide and the consent boundary was measured at three positions along the adjacent shoreline. The distance to the inshore boundary at the position of low tide 1 was 26 m, at low tide 2 was 54 m, and at low tide 3 was 36 m (Plate 2, Figure 9).

6.2 Sonar imaging

Sonar runs collected from the benthos under and adjacent to the consent revealed an area at the eastern anchor end of the farm that supported cobbles (Figure 11b). This area is located around the anchors and warps and is east of backbones. All remaining areas scanned in the consent were characterised by a low feature terrain (i.e. soft substrata).

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

Type	No. & Depth (m)	Coordinates
Consent corner	1, 9.9m	1669436.2,5460530.0
Consent corner	2, 5m	1669503.9,5460341.8
Consent corner	3, 6m	1669362.8,5460291.1
Consent corner	4, 22.1m	1669286.4,5460503.2
Structure corner	A, 22m	1669293.7,5460459.2
Structure corner	B, 9.6m	1669345.9,5460314.8
Structure corner	C, 9m	1669488.9,5460368.1
Structure corner	D, 10.8m	1669434.5,5460519.4
Low tide	Low tide 1	1669528.6,5460346.8
Low tide	Low tide 2	1669498.1,5460516.5
Low tide	Low tide 3	1669409.9,5460269.7

Plate 2. Aerial view of three low tide GPS locations relative to the inshore farm boundary (red polygon).

Figure 10. Depths of the proposed reconsent area (teal) and existing marine farm surface structures (pink). Three low tide locations are also plotted (crosses).

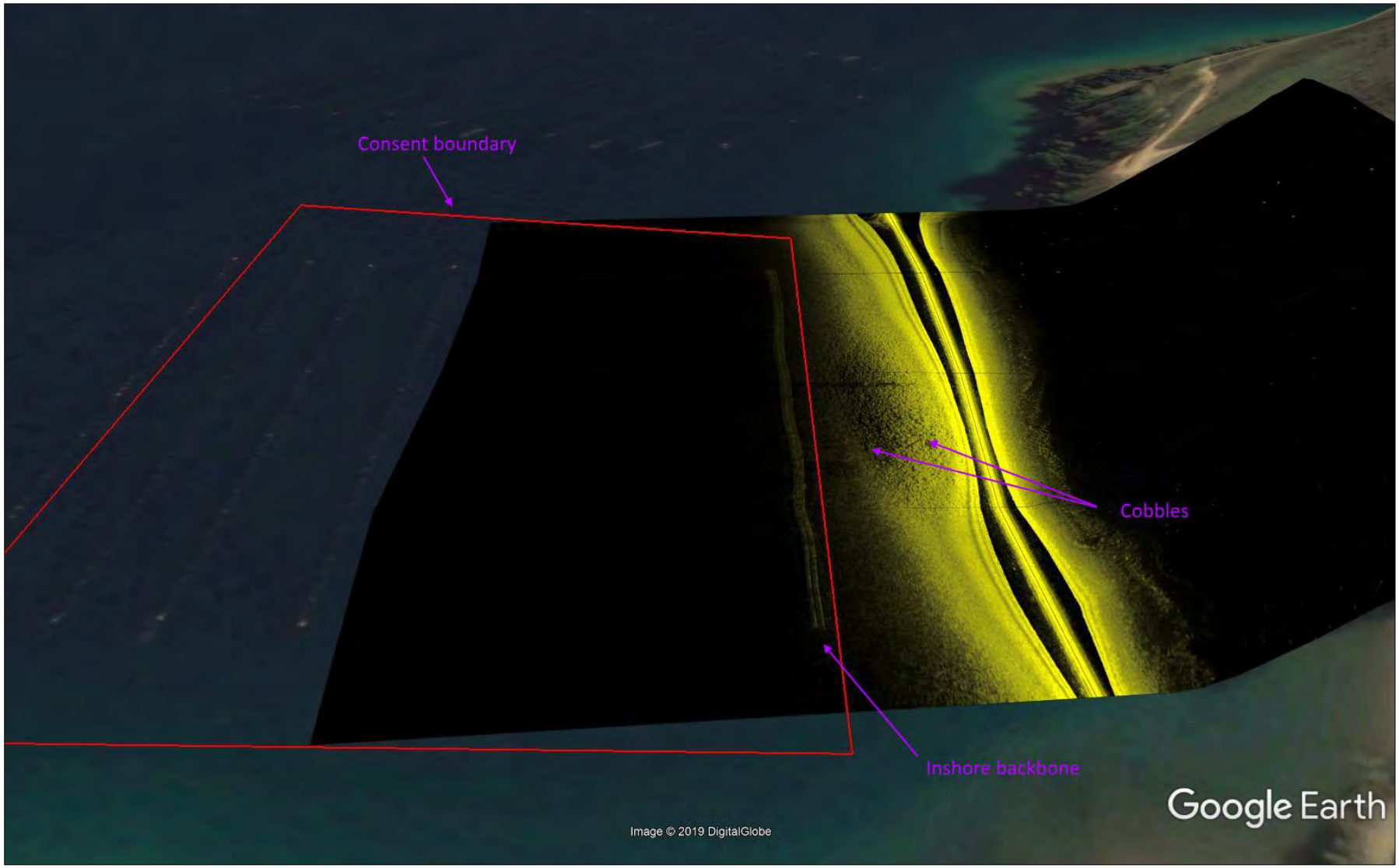

Figure 11a. Northern boundary sonar run at farm site 8188. Red polygon = consent boundary, yellow line = sonar track.

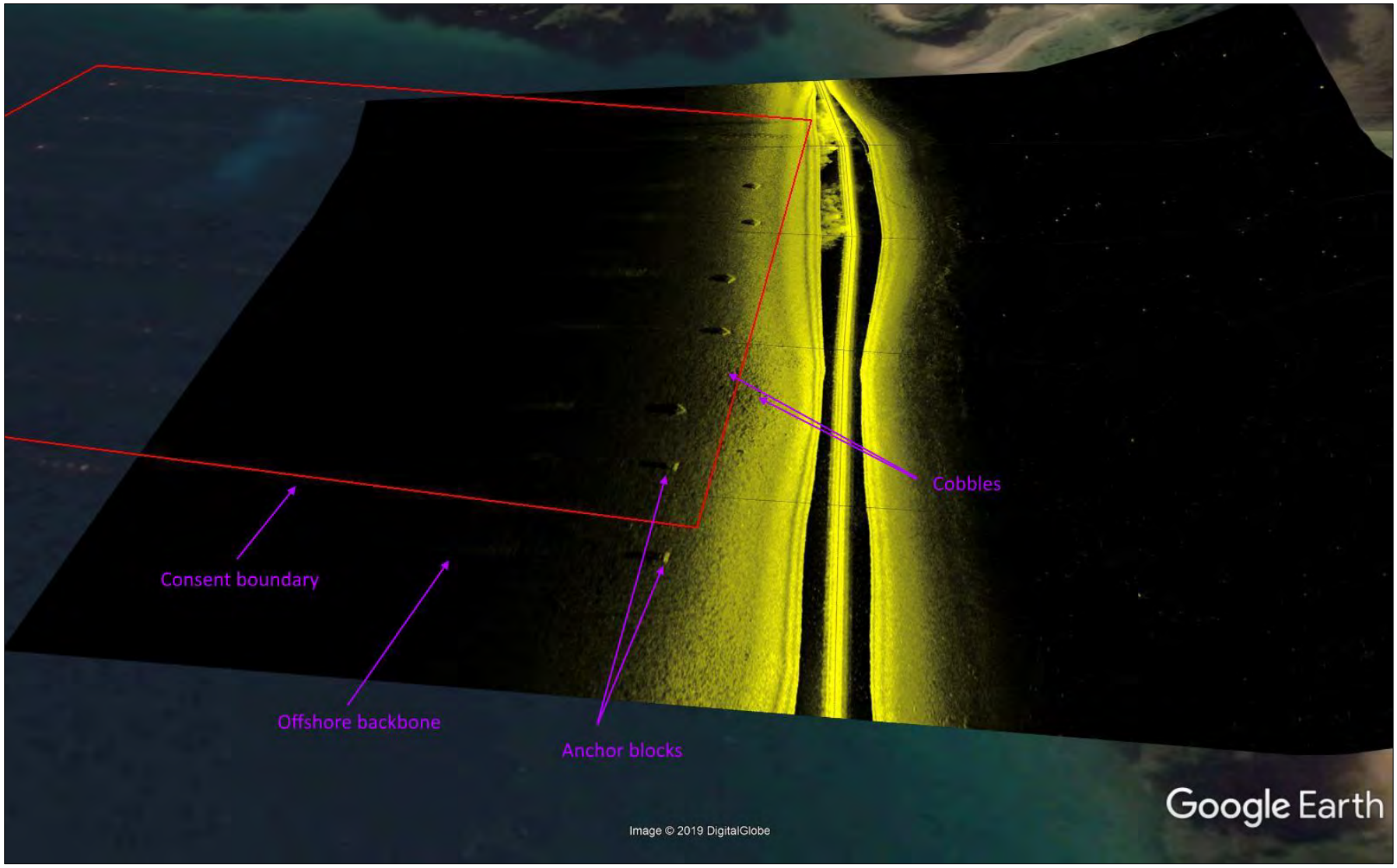

Figure 11b. Eastern boundary sonar run at farm site 8188. Red polygon = consent boundary, yellow line = sonar track.

6.3 Drop camera images

Drop camera photographs were taken throughout the existing consent as well as inshore and offshore of the consent (Table 2, Figure 12, Appendix 1). Photographs were used to describe the benthic substratum, mussel shell debris cover and presence of biological characteristics.

Within the consent

Most of the benthos within the consent was characterised by soft substratum. The north-western offshore corner of the consent was characterised by silt (mud) with a very small component of natural shell (Plate 3). In shallower parts of the consent less than approximately 18 m depth, silt was dominant but fine sand and natural shell was also present (Plate 4). A layer of filamentous algae was present at many stations under warps, backbones and away from the consent (Plate 5). An occasional cobble was observed at the eastern inshore end of the farm under warps and around anchors (Plate 6). No cobbles were observed under backbone structures.

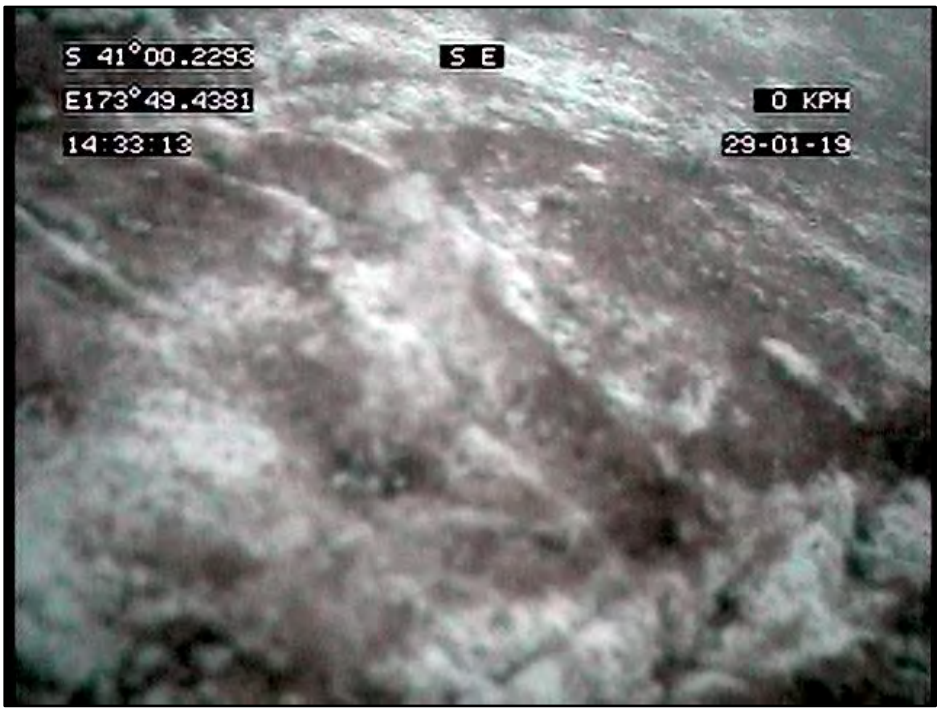

Plate 3. Silt and clay from deep parts of the consent (photo 5, 22.1 m depth).

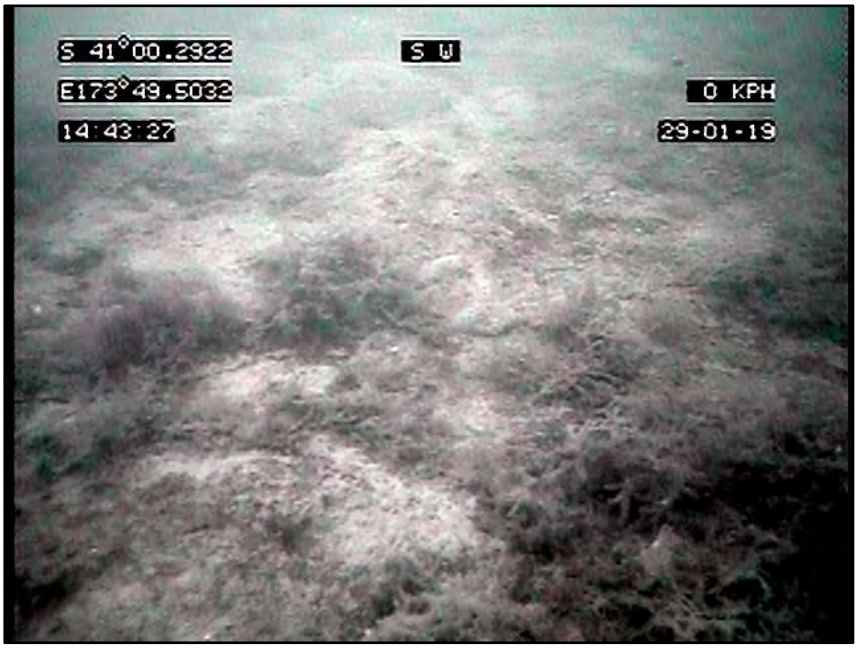

Plate 4. Silt, fine sand and natural shell from under backbones in the consent (photo 11, 17.2 m depth)

Plate 5. Silt, fine sand and natural shell with filamentous algae located inside the consent (photo 14, 16 m depth).

Plate 6. Silt, natural shell and an occasional cobble at the eastern anchor end of the consent (photo 12, 8.5 m depth

Mussel shell

Mussel shell debris was observed from 6 of the 18 consent photos. No photos collected outside the consent showed the presence of mussel shell (Figure 13). In the consent, mussel shell debris, when present, ranged from 2-20% cover under the backbones (Plate 7) (Table 2). Mussel shell debris was recorded from under one warp photo at 2% cover (Figure 13).

Plate 7. Silt, natural and mussel shell under backbones located in the consent (photo 7, 16.4 m depth). Note: filamentous algae likely obscure some mussel shell

6.4 Offshore and inshore of the consent

Areas offshore and inshore of the consent were comparable to the substratum under the consent with deep areas dominated by mud and shallower areas characterised by silt, and natural shell.

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, level of mussel shell debris are listed.

No. & Depth (m)	Coordinates	Location	Substratum	Shell debris	% mussel shell
1, 22.3m	1669278.3,5460469.6	Offshore of consent, no structures	silt, clay		0
2, 21.6m	1669293.5,5460425.1	Offshore of consent, no structures	silt, clay		0
3, 18.2m	1669314.8,5460369.3	Offshore of consent, no structures	silt, clay, natural shell, filamentous algae		0
4, 11m	1669340.0,5460308.1	Offshore of consent, no structures	silt, natural shell, filamentous algae		0
5, 22.1m	1669292.4,5460493.8	In consent, under warps	silt, clay		0
6, 21.9m	1669324.6,5460422.8	In consent, under backbones	silt, clay, mussel shell	Low	5
7, 16.4m	1669346.8,5460364.9	In consent, under backbones	silt, clay, mussel shell, filamentous algae	Low	20
8, 7.5m	1669372.6,5460301.3	In consent, under warps	silt, natural shell, filamentous algae		0
9, 20.7m	1669340.8,5460496.5	In consent, under warps	silt, clay		0
10, 18.4m	1669364.9,5460434.5	In consent, under backbones	silt, clay, filamentous algae		0
11,17.2m	1669386.2,5460381.4	In consent, under backbones	silt, clay, filamentous algae		0
12, 8.5m	1669405.3,5460316.3	In consent, under warps	silt, natural shell, filamentous algae, occ cobble		0
13, 18.2m	1669384.4,5460509.1	In consent, under warps	silt, natural shell		0
14, 16m	1669404.9,5460449.9	In consent, under backbones	silt, mussel shell, natural shell, filamentous algae	Low	5
15, 15m	1669429.0,5460389.3	In consent, under backbones	silt, mussel shell, natural shell, filamentous algae	Low	5
16, 10.3m	1669447.1,5460331.8	In consent, under warps	silt, natural shell, filamentous algae, occ cobble		0
17, 13.4m	1669418.1,5460519.3	In consent, under warps	silt, natural shell, filamentous algae		0
18, 11.9m	1669445.4,5460455.9	In consent, under backbones	silt, natural shell, filamentous algae		0
19, 11.2m	1669467.5,5460401.5	In consent, under backbones	silt, filamentous algae		0
20, 8.8m	1669487.8,5460346.5	In consent, under warps	silt, natural shell, mussel shell, filamentous algae	Low	2
21, 11m	1669442.4,5460518.3	Inshore of consent, no structures	silt, natural shell, filamentous algae		0
22, 10.1m	1669455.1,5460468.4	In consent, near backbones	silt, natural & mussel shell, filamentous algae	Low	2
23, 8.1m	1669483.7,5460417.0	Inshore of consent, no structures	filamentous algae		0
24, 5.3m	1669504.5,5460349.0	In consent, under warps	silt, natural shell, filamentous algae		0

Figure 12. Drop camera stations of the reconsent area (open triangles = soft substrata, closed circles = hard substrata), consent renewal area (teal) and surface structures (pink). Numbers are the photo number and water depth (m).

Figure 13. Estimated percentage cover of mussel shell from drop camera stations (open triangles = soft substrata, *closed circles = hard substrata*), consent renewal area (teal) and surface structures (pink). Numbers are the estimated % cover of mussel shell.

7.0 Conclusions

7.1 Benthic habitats and substratum

Substratum and habitat distribution relative to the reconsent area was based on drop camera stations and sonar imaging of the benthos. The consent area was mostly located over a relatively featureless benthos. Deep areas were dominated by silt substratum whereas silt, fine sand and natural shell dominated at depths less than approximately 18 m.

Mud (i.e. silt) is the most common subtidal habitat in sheltered areas of the Marlborough Sounds (McKnight and Grange, 1991) and has been traditionally targeted for marine farming activities. This substratum type is considered suitable for consideration for marine farming activities in the Marlborough Sounds.

Unlike mud, rocky substratum is not traditionally considered suitable for marine farming activities as it is likely smothered by shell debris and may no longer functions as a hard substratum habitat. Occasional cobble substrata were observed under warps and around anchors at the eastern end of the farm. The impact of warps and anchors is known to be well less than backbones (Davidson and Richards, 2014). No impact was observed in the area supporting occasional cobbles.

7.2 Species and communities

Species abundance and diversity from most of the consent was relatively low compared to high current locations in the Sounds. Benthic observations within soft substratum dominated areas of the consent confirmed the area supported species typical of silt and fine sand substratum in the central Pelorus Sound (e.g. microalgal mat, cushion sea star, sea cucumber, 11 arm seastar). Spotty were observed from drop camera photos.

No scallops were observed during the present survey; however, it is likely they will exist, especially in areas <18 m depth. No species, habitats or communities regarded as ecologically significant (see Davidson *et al*., 2011) were observed within the consent. Filamentous algae were regularly observed under the farm and around the farm at depth <18m. These algal species are likely seasonal being most abundant in warmer months.

7.3 Sea birds

Based on the few studies that have investigated the interactions between mussel farms and birds, mussel aquaculture can potentially affect seabirds by altering their food resources, cause physical disturbances (e.g. noise) and/or introduce possible entanglement risks. The

structures associated with aquaculture may also provide benefits including additional perching and feeding opportunities

Overall, New Zealand (Butler, 2003) and overseas studies (Ross *et al*., 2001; Roycroft *et al*., 2004; Kirk *et al*., 2007) suggest that the general attraction of particular seabirds to mussel farms is likely due to increased foraging success on fish and biofouling, and even on the cultured stock itself. The consequences of this attraction will likely depend on the species' dietary preferences and response to both direct and indirect ecosystem changes induced by mussel cultivation.

Birds are potentially at risk from operational by-products of farms, including ties and plastics. Butler (2003) found young and adult Australian gannets (*Sula serrator*) in the Marlborough Sounds entangled in discarded rope ties from mussel farms that had been incorporated into nests by parents. The closest gannet colony is 16.3 km at Waimaru Peninsula in Beatrix Bay and well within their flight range. A variety of shag species are also present in the area and may potentially use ties as nesting material. It is therefore important that marine farmers minimize the introduction of ties into the marine environment.

The mussel industries Environmental Management System (EMS), formally known as the Environmental Code of Practice seeks to minimise such risks, and they are likely to be minimal on well-maintained farms (Keeley *et al*., (2009). The Marine Farming Association also provides an Environmental Certification Programme that requires vessel crews demonstrate their knowledge and adherence to the industry Standard Operating Procedures and Codes of Practices in relation to the (1) Noise Code of Practice, (2) Pollution and Emissions Code of Practice and (3) Reducing Waste taken to Landfill Code of Practice.

7.4 King shag

A variety of authors have also outlined human activities that may impact king shags including aquaculture (Schuckard, 2006); commercial fishing (McClellan, 2017), colony disturbance (Butler, 2003; Davidson *et al*., 2018), and predation (Nelson, 1971). Apart from aquaculture, little research has occurred on these topics despite their potential importance on a high-status species.

Brown (2001) and Lalas (2001) produced evidence in relation to the interactions between marine farms and king shag. Brown (2001) stated that he observed king shags feeding under mussel lines at long-established marine farms on eight separate occasions between April 1999 and June 2002. The author concluded that observations of successful foraging under farms suggest that at least farms do not totally preclude foraging and subjectively also may indicate that at least some farms do not alter food chains or feeding ecology to the detriment of king shags. Lalas (2001) also produced evidence in relation to a marine farm application. The author stated that based on observations collected in Forsyth Bay, two of the 19 records (11%) were for king shags within existing farms. Lalas (2001) concluded "these records demonstrate that shoreline mussel farms do not preclude foraging king shags".

Butler (2003) undertook the first review of the possible effects of marine farms on king shag. He described the potential effects in three categories: physical effects (structures of farms, lights, debris from farms, and shell waste); effects of activities (disturbance, noise and water pollution); and effects on marine ecology (hydrography, sediment and water column changes, creation of new habitat, exclusion of trawlers, unwanted organisms). Butler (2003) considered that most king shag feeding occurred in deeper water, and that potential impacts resulting from mussel farms excluding king shag foraging may become apparent if deeper-water mussel farms were developed. Lloyd (2003) reviewed the effects of aquaculture on seabirds and cetaceans. He also appeared to believe the existing pattern of inshore mussel farms was less likely to affect king shag foraging compared to proposals for extensive mid-bay mussel farms in Admiralty Bay. Fisher and Boren (2012), undertook a rigorous study of king shag foraging distribution in Admiralty Bay; see Section 2.4) and concluded that deep water marine farms posed a greater threat compared to inshore sites.

The most recent general review of the ecological effects of aquaculture (Sagar, 2013) only specifically mentioned king shag in relation to disturbance but discussed the main effects of 'filter feeder species' farms on seabirds in general, and their significance. The authors stated the eight key effects were: entanglement with farm structures, habitat exclusion, smothering of benthos, changed abundance of prey, provision of roosts, disturbance by farm activities, ingestion and entanglement with farm debris, and attraction to lights. Sagar (2013) considered that the potential effects of habitat exclusion and smothering of benthos were, in general, insignificant to seabirds given the small area occupied by filter feeder farms. However, he qualified this, noting that the significance of effects "will depend on the spatial scale of the aquaculture facility in relation to the distribution and abundance of prey

species", and concluded that effective management could be achieved by avoiding locating farms in key foraging areas of species with restricted habitat requirements (see Sagar, 2013). The review listed "home ranges or location of important feeding and breeding habitats for most populations of seabird species "as being a key information gap for every one of the eight key potential effects."

Of all the threats, most attention had been given to the potential effects of mussel farms on king shags, and the possibility that king shags are excluded from the area under and around a mussel farm due to physical structures inhibiting foraging, and/or changing the habitat causing decreases to key prey species (McClellan, pers comm.). Unfortunately, the extensive data that has been collected on the locations of foraging king shags has, however, not been able to answer this key question.

The present marine farm reconsenting site is located at depths between <22 m and is therefore likely seldom used by these birds. King shags forage in Tawhitinui Reach but are seldom observed in Hallam Cove (Schuckard, 1995, 2017, author pers obs.), however, most foraging occurs at the eastern end of the Reach. The applicant proposes that the present farm site size and consented structure number remains unchanged. This means any impact on king shags, whether positive or negative, will also remain unchanged if the site is reconsented.

7.5 Marine mammals

International research demonstrates that the nature and scale of any direct displacement or avoidance varies greatly between culture methods and marine mammal species (MPI, 2013). While particular species of whales or dolphins will be highly sensitive to disturbance, other species (such as bottlenose dolphins) and pinnipeds may actually be attracted to the structures (Clement and Halliday, 2014; Davidson and Richards, 2017).

For mussel farming, occupied farm areas may be perceived by some marine mammals (particularly those that echolocate) as a physical, visual or acoustic obstruction within their habitat. Based on research to date in Admiralty Bay, dusky dolphins appear unable to cooperatively herd schooling fish when adjacent to or within mussel farm structures (see Pearson *et al*., 2012). Clement and Halliday (2014) also noted the reluctance of common dolphins to enter or feed near farm structures within the Admiralty Bay region. Over the course of five consecutive winters between 1998 and 2002, Markowitz *et al.* (2004) found

that dolphins spent significantly less time in areas occupied by mussel farms than other parts of the inner bay. Pearson *et al*. (2012) also reported similar findings from tracking dolphin groups both inside and outside of mussel farms across all of Admiralty Bay during the winters and springs of 2005-2006. To test specifically whether these results were due to the fact that dusky dolphins might not use habitats closer to shore in general, rather than avoiding the farm areas themselves, Markowitz's study looked at the amount of time groups spent near farms (<200 m) and Pearson's study looked at time spent within the nearshore zone (<400 m of the shoreline) around inner and all of Admiralty Bay, respectively. Both studies found dolphins frequented areas occupied by mussel farms significantly less often than similar areas near farms or within the general nearshore zone.

The significance of such 'disruptions' to their foraging and feeding success over time may range from minor, (i.e. they simply employ other foraging strategies or move to other sources), to major implications (i.e. the loss of a primary food source begins to have population-level effects, such as reduced reproduction rates). It is difficult to assess whether these foraging limitations are impacting on the survival and reproduction of these dolphins at the population level and research can take several decades to determine and population dynamics (e.g. closed versus open structure) can affect the efficiency with which data can be collected (D. Clement, pers. comm.).

Displacement

For dusky and common dolphins, the existing farm may represent an area lost as foraging habitat, however, central Pelorus is not an area used regularly by these species. The present proposal, however, is applying for no additional water space, therefore any change to foraging behavior will remain unchanged.

Based on migratory patterns and behavour it is unlikely these farms represent a threat to echolocating whales.

Some species such as NZ fur seals, may be attracted to mussel farms as hauling outs (Clement and Halliday, 2014; Davidson and Richards, 2017). Farm structures may also attract bottlenose dolphin, and possibly killer whales, due to these species' curious natures and the associated aggregations of possible prey species under and near farms. Bottlenose dolphins have been frequently recorded 'sweeping' through mussel farms within the greater Admiralty Bay region (D. Clement, pers. comm) and Pelorus Sound (author pers. obs.).

Entanglement

There are four reported incidences of dolphin entanglement and death at a salmon farm in New Zealand, both from the Marlborough Sounds (M. Aviss, MDC, https://www.stuff.co.nz/national/108920343/-). In one, an unidentified dolphin species became trapped while a predator net was being replaced, in another case, a Hector's dolphin became trapped under a predator net. In 2018, two separate instances of a dolphin becoming trapped in salmon cage nets were reported in Pelorus Sound. Internationally, fatal entanglements of dolphins in predator nets on finfish farms have been reported from Australia (Kemper and Gibbs, 2001; Kemper *et al*., 2003; Kemper *et al.,* 2005) and Italy (Díaz López and Bernal Shirai, 2007). This may reflect attraction of dolphins to a food source (Kemper and Gibbs, 2001) although such interactions between finfish farms and cetaceans have not been proven (Kemper *et al*., 2003).

There is also one record of a marine mammal becoming trapped or tangled in a mussel farm (i.e. a Bryde's whale) (Wursig and Gailey, 2002). The low incidence of mussel farm entanglements is probably related warps and backbones being under tension thereby reducing the chance of entanglement. This is in stark contrast to lobster pots that have a single line to the surface. This line is usually under little or no tension. Whales migrating up the east coast of the South Island pass hundreds of lobster lines that present a serious entanglement threat. A humpback first spotted by DOC staff near Banks Peninsula with a cray pot buoy line tangled around its tail stock and flukes then became entangled in mussel floats when it swam alongside a farm in Tory Channel several days later. This animal was cut free from the cray pot lines by a mussel farmer (Scott Madsen) and was released alive.

Wursig and Gailey (2002) stated that entanglements by larger whales in aquaculture facilities are relatively rare events.

The present marine farm utilizes standard mussel farming structures that are under tension and therefore present a low risk of entanglement to marine mammals. Marine farm consents also always require inorganic debris to be retrieved and that structures be maintained in good working order .

7.6 Biosecurity issues

The applicant belongs to mussel industries Environmental Management System (EMS). As a member, the applicant and his contractors are bound by good environmental practices. As well as all aspects of farming such as establishment, seeding, and harvesting, the Code includes guidelines on the transfer of mussel seed and the NZ Mussel Industry Seed Transfer Code. All members of the ECOP are also bound by the Biosecurity Act 1983, as well as the Hazardous Substances and New Organisms Act 1996.

7.7 Mussel farming impacts

7.7.1 Benthic impacts

Mussel shell debris was recorded from 6 of the 18 consent area photos. Mussel shell was also observed from one photo under warps, but no shell was observed outside the consent. Mussel debris was most abundant under backbones but when present was low ranging from 2-20% cover.

Shell debris impact levels were within the range known for mussel farms in the Marlborough Sounds. The farm impact at this site is at the low end of the impact range compared to other farms in the Sounds. This not consistent with a study by Harstein and Rowden (2004) who investigated the impact of mussel farming at three sites in Pelorus Sound. The authors had one of their study farms located in this wider area of Pelorus. The authors stated impacts were relatively high in sheltered areas like Hallam Cove, however, the present farm is relatively shallow which may explain low impact 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 farming activity remains consistent, it is very likely that the redox layer will become shallower compared to sites away from the farm (Hartstein and Rowden, 2004; Keeley *et al*., 2009). This is indicative of an increased level of enrichment under marine farming structures. Redox records under mussel farms vary depending on environmental variables such as wave exposure and substrata. In general, redox values under farms are at the lower end of enrichment spectrum (Keeley *et al*., 2009).

Recovery of the benthos takes approximately 5-7 years on deep soft substratum as shell is often smothered thereby reducing recovery times compared to inshore coarser substratum areas (Davidson and Richards, 2014).

7.7.2 Productivity

Mussel farms can influence adjacent farms by slowing water flow to farms located in downstream positions (Ogilvie, 2000). 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 the ecological carrying capacity of the Sounds has been reached, however, this topic is not well researched. There is considerable evidence showing 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 Fitzroy Complex are very low (Broekhuizen, 2015). Winds are likely to be a significant driver of water movement in this area, especially during north-west weather events. The farm is well distant to the main channel making water turnover times long compared to bays close to the main reach of Pelorus Sound.

Based on these considerations and the existing literature, it is very probable the site will cause phytoplankton depletion inside its boundaries. The present reconsenting application does, however, represent no change to the number of consented lines and therefore represents no change to phytoplankton predation and water flows in the bay.

7.8 Boundary adjustments, line adjustments and monitoring

No biological communities of particular interest were found inside the consent during the present survey. Although most of the farm was located over silt and natural shell in a sheltered location, low levels of farm impact were observed.

Warps are known to have little or no impact on benthic communities (Davidson and Richards, 2014). At this site the benthos under warps appeared relatively natural, with little mussel shell debris present under these structures.

Any effect, be it positive or negative, on king shag and marine mammals would remain unchanged if the farm is reconsented

A small area supporting occasional cobbles were observed in the east under warps. The occasional cobbles do not appear to be impacted form the present farm. No change to the present farm boundary is therefore suggested. Habitats and species associated with the site are typical of sheltered parts of central Pelorus Sound and as such no monitoring is suggested.

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Appendix 1. Drop camera photographs

Photo 1 Silt and clay

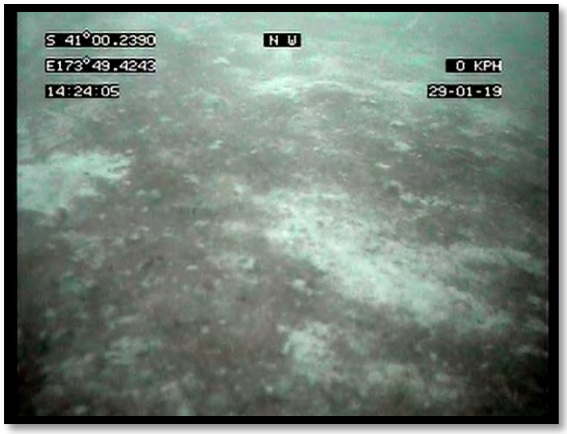

Photo 2 Silt and clay

Photo 3 silt, clay, natural shell, filamentous algae

Photo 4 silt, natural shell, filamentous algae

Photo 5 silt and clay

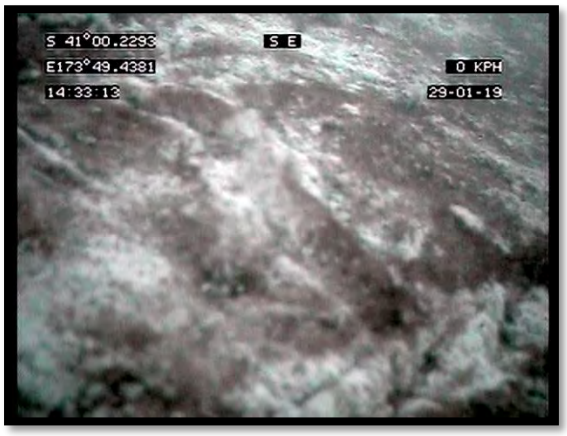

Photo 6 silt, clay, mussel shell

Photo 7 silt, clay, mussel shell, filamentous algae

Photo 8 silt, natural shell, filamentous algae

Photo 9 Silt and clay

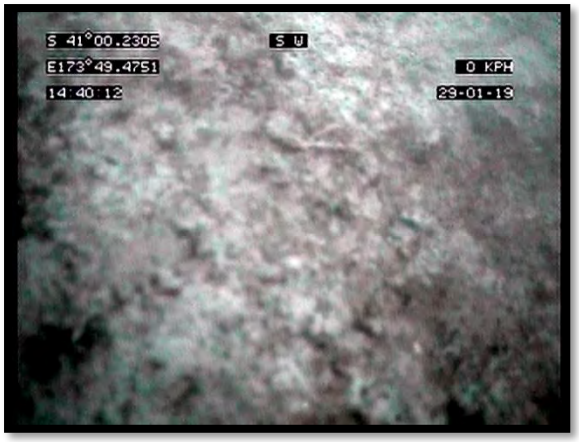

Photo 10 silt, clay, filamentous algae

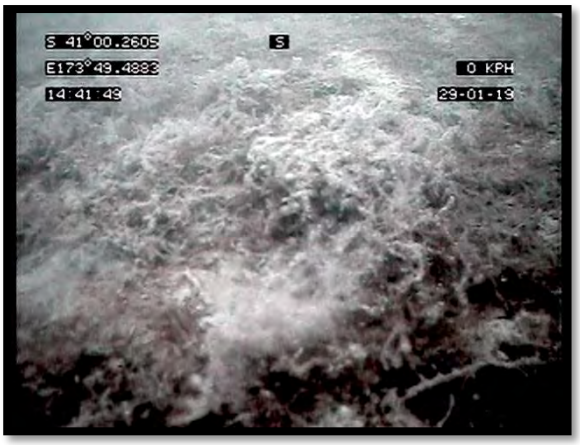

Photo 11 silt, clay, filamentous algae

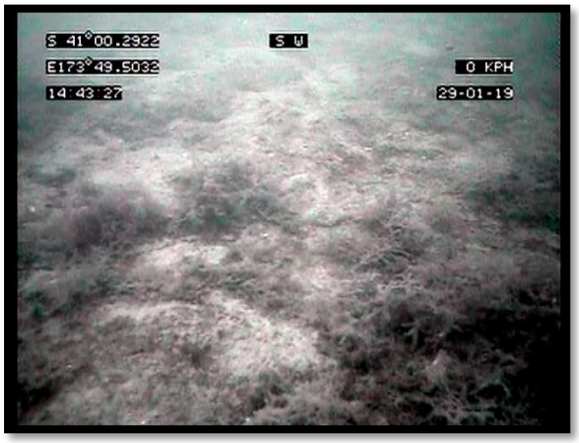

Photo 12 silt, natural shell, filamentous algae, occ cobble

Photo 13 silt, natural shell

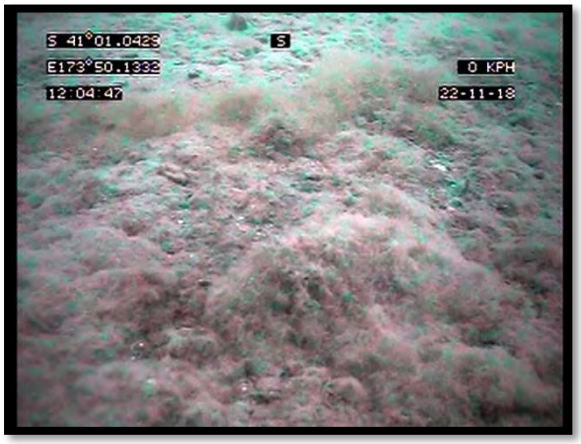

Photo 14 silt, mussel & natural shell, filamentous algae

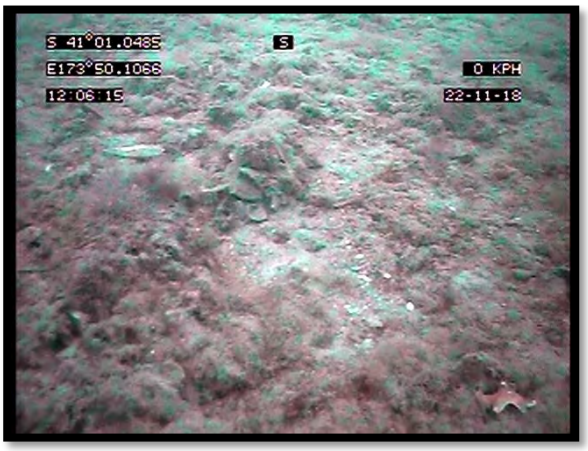

Photo 15 silt, mussel & natural shell, filamentous algae

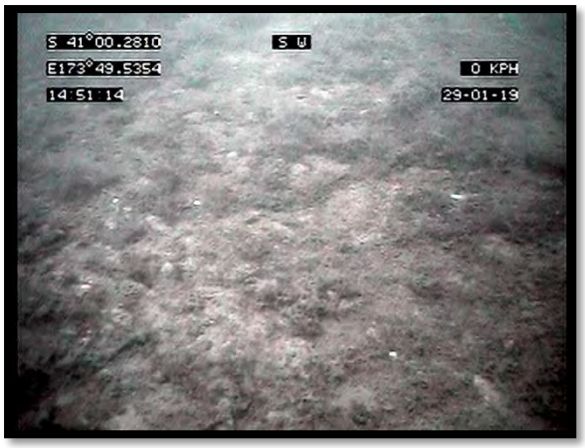

Photo 16 silt, natural shell, fil. algae, occ cobble

Photo 17 silt, natural shell, filamentous algae

Photo 18 silt, natural shell, filamentous algae

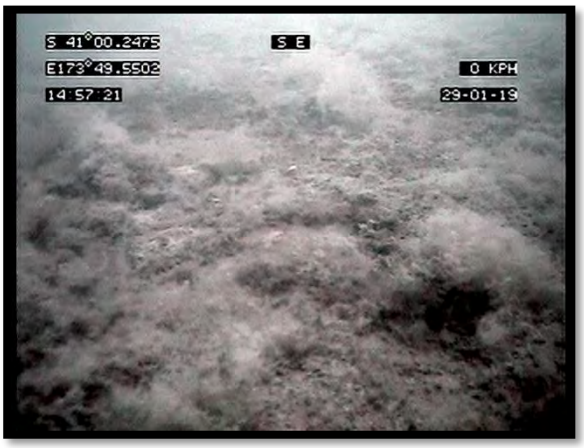

Photo 19 silt, filamentous algae

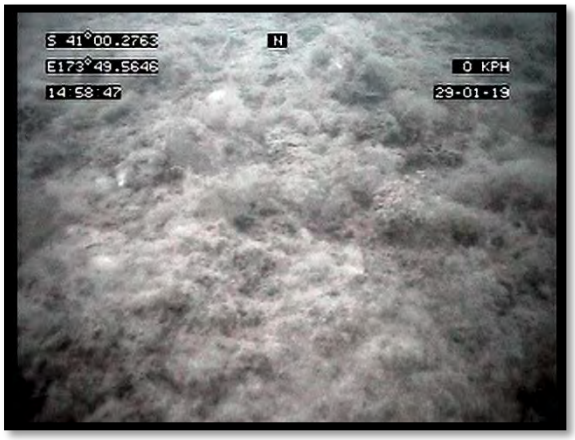

Photo 20 Silt, natural shell, filamentous algae

Photo 21 silt, natural shell, filamentous algae

Photo 22 silt, natural & mussel shell, filamentous algae

Photo 23 filamentous algae

Photo 24 silt, natural shell, filamentous algae

To: Marlborough District Council
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Blenheim 7240

MARLBOROUGH DISTRICT COUNCIL

ISO 9001:2008
Document Number:
RAF0010-CI1921

SUBMISSION ON APPLICATION FOR A RESOURCE CONSENT

1. Submitter Details

Name of Submitter(s) in full .....

Electronic Address for Service *(email address)* .....

Postal Address for Service *(or alternative method of service under section 352 of the Act)* .....

.....

.....

Primary Address for Service *(must tick one)*

Electronic Address *(email, as above)* ☐ or, Postal Address *(as above)* ☐

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)*

I/we support all or part of the application ☐

I/we oppose all or part of the application ☐

I/we are neutral to all or part of the application ☐

☐ I am a trade competitor for the purposes of section 308B of the Resource Management Act 1991

☐ I am directly affected by an effect of the subject matter of the submission that:

a) adversely affects the environment; and

b) does not to relate to trade competition or the effects of trade competition

☐ I am NOT directly affected by an effect of the subject matter of the submission that:

a) adversely affects the environment; and

b) does not to relate to trade competition or the effects of trade competition

☐ I am NOT a trade competitor for the purposes of section 308B of the Resource Management Act 1991

The specific parts of the application that my/our submission relates to are *(give details, using additional pages if required)*

The reasons for my/our submission are *(use additional pages if required)*

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. Heard in Support of 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 ☐

OPTIONAL: Pursuant to section 100A of the Resource Management Act 1991 I/we request that the Council delegate its functions, powers, and duties required to hear and decide the application to one or more hearings commissioners who are not members of the Council. *(Please note that if you make such a request you may be liable to meet or contribute to the costs of commissioner(s). Requests can also be made separately in writing no later than 5 working days after the close of submissions.)* ☐

5. Signature

Signature ..... Date .....

Signature ..... Date .....

6. Important Information

- Council must receive this completed submission before the closing date and time for receiving submissions for this application. The completed submission may be emailed to mdc@marlborough.govt.nz.
- The closing date for serving submissions on the consent authority is the 20th working day after the date on which public or limited notification is given. If the application is subject to limited notification, the consent authority may adopt an earlier closing date for submissions once the consent authority receives responses from all affected persons.
- You must serve a copy of your submission on the applicant as soon as is reasonably practicable after you have served your submission on the consent authority.
- Only those submitters who indicate that they wish to speak at the hearing will be sent a copy of the section 42A hearing report.
- If you are making a submission to the Environmental Protection Authority, you should use form 16B.
- If you are a trade competitor, your right to make a submission may be limited by the trade competition provisions in Part 11A of the Resource Management Act 1991.
- If you make a request under section 100A of the Resource Management Act 1991, you must do so in writing no later than 5 working days after the close of submissions and you may be liable to meet or contribute to the costs of the hearings commissioner or commissioners. You may not make a request under section 100A of the Resource Management Act 1991 in relation to an application for a coastal permit to carry out on activity that a regional coastal plan describes as a restricted coastal activity.
- Please note that your submission (or part of your submission) may be struck out if the authority is satisfied that at least 1 of the following applies to the submission (or part of the submission):
  - it is frivolous or vexatious;
  - it discloses no reasonable or relevant case;
  - it would be an abuse of the hearing process to allow the submission (or the part) to be taken further;
  - it contains offensive language;
  - it is supported only by material that purports to be independent expert evidence, but has been prepared by a person who is not independent or who does not have sufficient specialised knowledge or skill to give expert advice on the matter.

7. Privacy Information

The information you have provided on this form is required so that your submission can be processed under the Resource Management Act 1991. The information will be stored on a public file held by Council. The details may also be available to the public on Council's website. If you wish to request access to, or correction of, your details, please contact Council.