



**MARLBOROUGH
DISTRICT COUNCIL**

RESOURCE CONSENT APPLICATION

U220472

Wairangi Bay Marine Farms Limited

Marine Farm 8280, Wairangi Bay, Croisilles
Harbour, Marlborough

Submissions Close

5.00 pm Tuesday 16 August 2022

Application for Resource Consent

Applicant details

Application for Resource Consent

Sections 88 and 145, Resource Management Act 1991

To

Marlborough District Council

Applicant

I,

Wairangi Bay Marine Farms Limited

447 Johns Road
Harewood
Christchurch 8051

1118914

Ron Whiteley

447 Johns Road
Harewood
Christchurch 8051

03 3598200

rewhiteley@xtra.co.nz

Apply for the following type(s) of resource consent

Coastal

Agent

Aquaculture Direct

PO Box 213
Blenheim 7240

Rebecca Jane Clarkson

0212442132

rebecca@aquaculturedirect.co.nz

Project reference

8280

Property details

Site and location details

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

Site address

Marine Farm 8280, Wairangi Bay, Croisilles Harbour, Marlborough

Legal description

Marine Farm 8280

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 site is "located offshore of the southeastern shoreline of Wairangi Bay (Figure 3.1), approximately 1800 m east-north-east of Matakoi Point, Squally Cove, Croisilles Harbour. Croisilles Harbour is the western-most harbour in the Marlborough Sounds and opens into Tasman Bay. Squally Cove is some 38.5 km by sea from the entrance to Port Nelson. The Cove (as measured from Red Clay Point on the northern side to the western headland of Symonds Bay on the southern side) has a coastline length of approximately 24 km and covers an area of sea of approximately 1109 ha. Wairangi Bay itself has a coastline length of approximately 5.5 km, is roughly 2.2 km long and up to 800 m wide, and covers an area of sea of approximately 160 ha". (Robertson Environmental Report 0105, attached).

The farm sits alongside other farms on the southeastern shoreline of Wairangi Bay. The nearest marine farms to 8280 are the adjacent farm to the east 8279 and to the west 8281.

The adjacent land is zone Rural 1.

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:

Wairangi Bay Marine Farms Limited (Wairangi Bay Marine Farms) has applied to renew the existing resource consent MFL076 for marine farm site 8280 (total 3ha) for the purpose of farming Greenshell mussels (*Perna canaliculus*), scallops (*Pecten novaezelandiae*) and Pacific oysters (*Crassostrea gigas*) using conventional long line methods including oyster farming methods (refer attached layout diagrams illustrating the site.)

Marine Farm Licence 076 was issued to the original consent holder in July 1980 under the Marine Farming Act 1971 and assigned to Wairangi Bay Marine Farms in May 2003. MFL076 expires on 31st December 2024.

This application is to renew consent for 8280 and to revalidate the consent boundaries in line with the structures as per the application site plan.

The realignment will not be more than 200 metres from shore. Apart from the slight shift seaward, every other respect it remains the same as was permitted prior to 1996. As such is it assessed as a controlled activity.

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 for the RMA. 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 conducted in the applicant's favour in terms of section 165ZJ(1).

The expiry date of the existing consent is 2024, along with over 250 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.

The applicant seeks a 20-year term, commencing in 2023 and expiring in 2043.

The site dimensions are as per the layout plans attached. The application includes 9 long lines, each being approximately 110 metres long.

There are currently 5 lines installed and operating at the site that grow Pacific oysters.

The site layout is attached to the application.

The structures will be redeveloped to ensure that they are in accordance with the site layout.

Wairangi Bay Marine Farms Limited's Director, Ron Whiteley, is Christchurch based and has had interests in the aquaculture industry since 1996. Wairangi Bay Marine Farms has held the consent for 8280 since 2003.

The applicant's farm is now managed by Marlborough Oysters Ltd (Marlborough Oysters). Marlborough Oysters has been established by Aaron and Debbie Pannell to grow juvenile oysters to a size suitable for transportation to other areas for on-growing, in a joint venture with Moana NZ Ltd (MNZ), (a fully Māori owned company which takes a uniquely long term view in all their operations) which then grows the oysters to market size in Northland and the Coromandel. This is further explained in the 'operation' section below.

Aaron Pannell has been involved in the marine farming industry for the past 28 years, including employment in various operational and research roles at Marlborough Mussel Company Ltd, Aqua King Ltd and Sanford Ltd. Through these roles Aaron has developed considerable knowledge and experience of the mussel and oyster industries, as well as the Croisilles Harbour area.

The company employs six full time staff.

The farm is managed in accordance with the A+ Sustainable Management Framework for Pacific Oysters which was launched in 2015 and replaces the New Zealand Oyster Industry Code of Practice.

The A+ programme defines expected industry best management practices, and includes a cycle of continuous reporting, review, and improvement across a range of objectives, towards:

- Maintaining healthy ecosystems
- Protecting our aquatic environment
- Managing waste responsibly
- Using resources efficiently
- Safe and ethical seafood
- Respecting iwi values
- Respect for our communities

The A+ programme requires annual self-reporting and participation in three yearly independent verification.

Marlborough Oysters is also 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'.

The application has been assessed against all relevant policies and plans as being an appropriate activity in an appropriate location.

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

As an existing farm, the site has already been subject to a fish farm license and/or an aquaculture decision which assessed any undue adverse effects on fishing. However, a UAE will be required for any 'new' space created by the realignment.

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 MFL076 in Wairangi, Croisilles Harbour, to seed, cultivate and harvest species Greenshell mussels (*Perna canaliculus*), scallops (*Pecten novaezelandiae*) and Pacific oysters (*Crassostrea gigas*) including occupation of 3ha 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 8280.

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 8280

Consent type

Coastal

Subcategory type

Marine Farm

Description of consent being applied for

Wairangi Bay Marine Farms Limited (Wairangi Bay Marine Farms) has applied to renew the existing resource consent MFL076 for marine farm site 8280 (total 3ha) for the purpose of farming Greenshell mussels (*Perna canaliculus*), scallops (*Pecten novaezelandiae*) and Pacific oysters (*Crassostrea gigas*) using conventional long line methods including oyster farming methods (refer attached layout diagrams illustrating the site.)

The application has been assessed against all relevant policies and plans as being an appropriate activity in an appropriate location.

Marine Farm Licence 076 was issued to the original consent holder in July 1980 under the Marine Farming Act 1971 and assigned to Wairangi Bay Marine Farms in May 2003. MFL076 expires on 31st December 2024.

This application is to renew consent for 8280 and to revalidate the consent boundaries in line with the structures as per the application site 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 for the RMA. 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 conducted in the applicant's favour in terms of section 165ZJ(1).

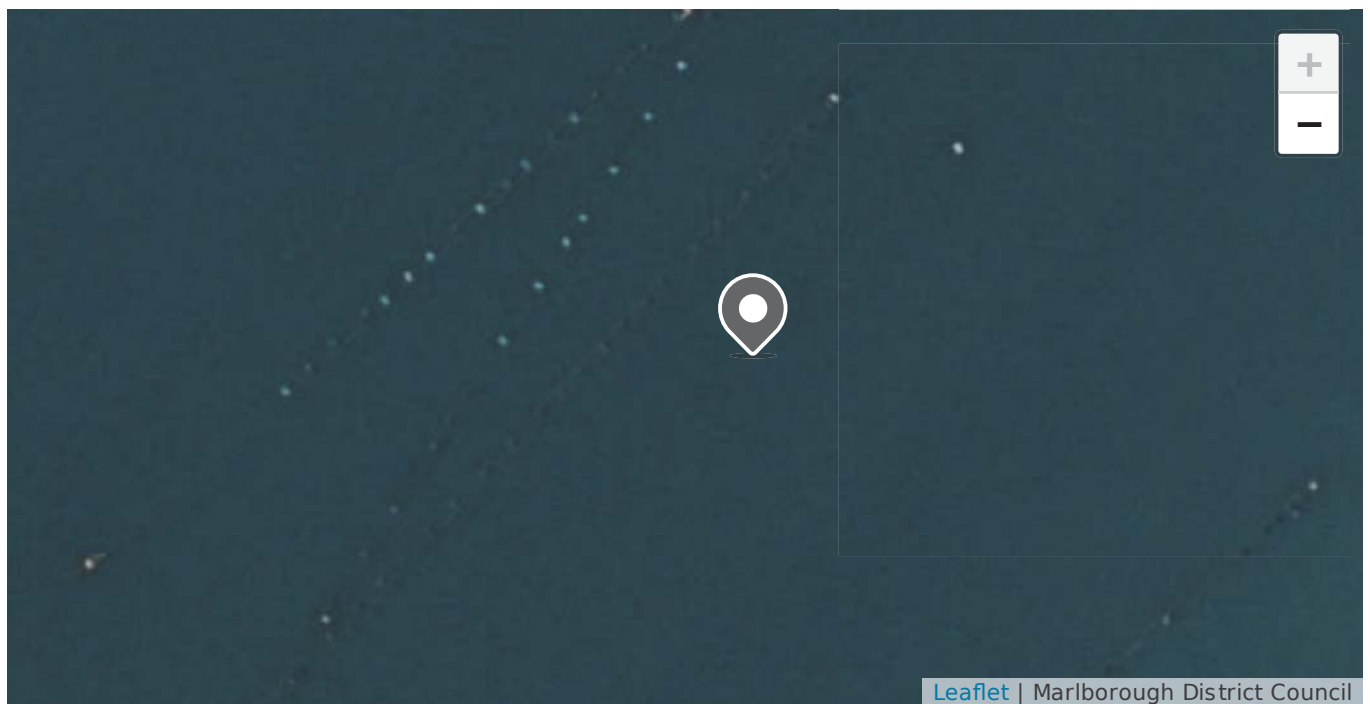
Location of the consent

Easting

1662671.922

Northing

5456495.18



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 MFL076 in Wairangi, Croisilles Harbour, to seed, cultivate and harvest species Greenshell mussels (*Perna canaliculus*), scallops (*Pecten novaezelandiae*) and Pacific oysters (*Crassostrea gigas*) including occupation of 3ha 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 8280.

The realignment will not be more than 200 metres from shore. Apart from the slight shift seaward, in every other respect it remains the same as was permitted prior to 1996. As such is it assessed as a controlled activity.

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 oyster 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 9.5 of the AEE).

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's farm is managed by Marlborough Oysters Ltd (Marlborough Oysters). Marlborough Oysters has been established by Aaron and Debbie Pannell to grow juvenile oysters to a size suitable for transportation to other areas for on-growing, in a joint venture with Moana New Zealand Ltd, (a fully Māori owned company which takes a uniquely long term view in all their operations). MNZ then grows the oysters to market size in Northland and the Coromandel. This is further explained in the 'operation' section below.

Aaron Pannell has been involved in the marine farming industry for the past 28 years, including employment in various operational and research roles at Marlborough Mussel Company Ltd, Aqua King Ltd and Sanford Ltd. Through these roles Aaron has developed considerable knowledge and experience of the mussel and oyster industries, as well as the Croisilles Harbour area.

The company employs six full time staff.

The farm is managed in accordance with the A+ Sustainable Management Framework for Pacific Oysters which was launched in 2015 and replaces the New Zealand Oyster Industry Code of Practice.

The A+ programme defines expected industry best management practices, and includes a cycle of continuous reporting, review, and improvement across a range of objectives, towards:

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- Protecting our aquatic environment
- Managing waste responsibly
- Using resources efficiently
- Safe and ethical seafood
- Respecting iwi values
- Respect for our communities

The A+ programme requires annual self-reporting and participation in three yearly independent verification.

Marlborough Oysters is also 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'.

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
- Te Runanga a Rangitane o Wairau
- Te Runanga O Ngati Kuia
- Ngāti Apa ki te Rā Tō
- Te Atiawa Manawhenua Ki Te Tau Ihu Trust
- Ngati Toarangatira Manawhenua Ki Te Tau Ihu Trust
- Ngati Rarua Trust

The applicant has sent an informal email to the local residents group informing them of his intention to submit this application and inviting engagement.

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.

Excerpt from AEE

Overall, the proposal is considered relatively minor in terms of ecological impacts based on the farming activity, long history of farming at the site, and the existing values, and therefore the life-supporting capacity of associated coastal ecosystems will be maintained through the operation of the consent.

6.2 Recommendations for addressing adverse residual effects that cannot be avoided or minimised

Monitoring of the associated coastal environment is not proposed given that the reconsent is expected to have minor effects on associated ecological values.

6.3 Recommendations for boundary adjustments

All existing consent and farming structures are located over soft substratum >50 m offshore of Mean Low Water Mark (MLWM) (refer Figure 3.3), therefore no boundary adjustments are suggested. No change to the consented number of backbones is suggested." Robertson Environmental Report 0105, 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).

Policy 2 of the NZCPS 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 Rangitira 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.

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

Excerpts from AEE

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.

There are many examples of incorrect cadastral mapping in the Marlborough Sounds locating farms within 50 metres of the shore and it was not the intention for this to occur. In any case the proposed realignment will move the farm a further 50 metres offshore thus freeing up shoreline access.

The proposed realignment will retain the farm's current position no greater than 200 metres from shore.

Headlands

There are no headlands immediately adjacent to the site.

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 applicant has had informal feedback from a resident requesting that the outside centre of the farms be marked to aid visibility in low light. The applicant has commissioned customized orange oyster floats which will be implemented as soon as is practicable.

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

Anchorage or Mooring Areas (Formal/Informal)

There are four moorings in the vicinity of the site. Moorings 1402 and 46 are located approximately 90 metres southwest of the site. Moorings 1859 and 243 are located approximately 60 metres south of the farm. Moorings 1402, 46 & 243 appear to be offsite from their consented location.

The site does not impede access to these moorings.

The moorings were consented after the farm however in recognition of their proximity to the farm the applicant is applying to realign the consent boundary seaward. An aerial overlay of the proposed realignment as well as the consented moorings including their swing circles shows that the proposed realignment will enhance access to the moorings.

There is not a jetty in the vicinity of the site.

Indirect Effects – Servicing Vessels at Site

The applicant estimates farming and harvesting vessels will visit the site on an average of 3 hours per week at variable times, for periods of 0.5 to 8 hours to undertake farm maintenance, seeding and harvesting.

The total number of hours spent on these activities is estimated to be in the order of 150 hours annually.

9.6 Water Ski Lanes

There are no formal water ski lanes in the vicinity.

9.7 Sub-Marine Cables

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

12.0 Recreational Value

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

Excerpt from AEE

10.1 Land Zoned for Residential Use or Proximity to Residences

The land adjacent to the site is zone Rural 1.

The nearest residence is approximately 120 metres on the adjacent land from the site.

10.2 Scenic Value

10.2.1 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 MEP.

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, 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 any significant ecological values, as addressed elsewhere in this application. In addition, Pacific oysters 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).

10.2.2 Natural Character

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

10.2.3 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 landscape adjacent to the farm features coastal hillslopes which rise from a relatively narrow band of rocky cobbled intertidal to ridges approximately 200-300 m in height. Predominantly landuse cover is regenerating native vegetation and, to a lesser extent, commercial forestry (currently supporting maturing *Pinus radiata*)". (Robertson Environmental Report 0105, attached).

The implementation of FlipFarm technology further diminishes visual effects.

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

Excerpts from AEE

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 9.5).

The applicant's farm is managed by Marlborough Oysters Ltd (Marlborough Oysters). Marlborough Oysters has been established by Aaron and Debbie Pannell to grow juvenile oysters to a size suitable for transportation to other areas for on-growing, in a joint venture with Moana New Zealand Ltd, (a fully Māori owned company which takes a uniquely long term view in all their operations). MNZ then grows the oysters to market size in Northland and the Coromandel. This is further explained in the 'operation' section below.

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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'.

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

Excerpts from AEE

9.1 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.

There are many examples of incorrect cadastral mapping in the Marlborough Sounds locating farms within 50 metres of the shore and it was not the intention for this to occur. In any case the proposed realignment will move the farm a further 50 metres offshore thus freeing up shoreline access.

The proposed realignment will retain the farm's current position no greater than 200 metres from shore.

9.2 Headlands

There are no headlands immediately adjacent to the site.

9.3 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 applicant has had informal feedback from a resident requesting that the outside centre of the farms be marked to aid visibility in low light. The applicant has commissioned customized orange oyster floats which will be implemented as soon as is practicable.

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

9.4 Anchorages or Mooring Areas (Formal/Informal)

There are four moorings in the vicinity of the site. Moorings 1402 and 46 are located approximately 90 metres southwest of the site. Moorings 1859 and 243 are located approximately 60 metres south of the farm. Moorings 1402, 46 & 243 appear to be offsite from their consented location.

The site does not impede access to these moorings.

The moorings were consented after the farm however in recognition of their proximity to the farm the applicant is applying to realign the consent boundary seaward. An aerial overlay of the proposed realignment as well as the consented moorings including their swing circles shows that the proposed realignment will enhance access to the moorings.

There is not a jetty in the vicinity of the site.

Applicant's proposed conditions for this activity

The application is for a new consent to replace MFL076 in Wairangi, Croisilles Harbour, to seed, cultivate and harvest species Greenshell mussels (*Perna canaliculus*), scallops (*Pecten novaezelandiae*) and Pacific oysters (*Crassostrea gigas*) including occupation of 3ha 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 8280.

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 and in the AEE.

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 MEP, 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 landscape adjacent to the farm features coastal hillslopes which rise from a relatively narrow band of rocky cobbled intertidal to ridges approximately 200-300 m in height. Predominantly landuse cover is regenerating native vegetation and, to a lesser extent, commercial forestry (currently supporting maturing *Pinus radiata*)". (Robertson Environmental Report 0105, attached).

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.

Policy 2 of the NZCPS 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 Rangitira 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.

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's farm is managed by Marlborough Oysters Ltd (Marlborough Oysters). Marlborough Oysters has been established by Aaron and Debbie Pannell to grow juvenile oysters to a size suitable for transportation to other areas for on-growing, in a joint venture with Moana New Zealand Ltd, (a fully Māori owned company which takes a uniquely long term view in all their operations). MNZ then grows the oysters to market size in Northland and the Coromandel. This is further explained in the 'operation' section below.

Aaron Pannell has been involved in the marine farming industry for the past 28 years, including employment in various operational and research roles at Marlborough Mussel Company Ltd, Aqua King Ltd and Sanford Ltd. Through these roles Aaron has developed considerable knowledge and experience of the mussel and oyster industries, as well as the Croisilles Harbour area.

The company employs six full time staff.

The farm is managed in accordance with the A+ Sustainable Management Framework for Pacific Oysters which was launched in 2015 and replaces the New Zealand Oyster Industry Code of Practice.

The A+ programme defines expected industry best management practices, and includes a cycle of continuous reporting, review, and improvement across a range of objectives, towards:

- Maintaining healthy ecosystems
- Protecting our aquatic environment
- Managing waste responsibly
- Using resources efficiently
- Safe and ethical seafood
- Respecting iwi values
- Respect for our communities

The A+ programme requires annual self-reporting and participation in three yearly independent verification.

Marlborough Oysters is also 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'.

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 Tiriti o Waitangi)

Policy 2 of the NZCPS 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.

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

Excerpts from AEE

25.1 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 oysters 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.

25.2 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 MEP, 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 landscape adjacent to the farm features coastal hillslopes which rise from a relatively narrow band of rocky cobbled intertidal to ridges approximately 200-300 m in height. Predominantly landuse cover is regenerating native vegetation and, to a lesser extent, commercial forestry (currently supporting maturing *Pinus radiata*)". (Robertson Environmental Report 0105, attached).

(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.

25.3 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.

Assessment under the New Zealand Coastal Policy Statement

Excerpts from AEE

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.

26.1 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.

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

26.2 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 Wairangi Bay.

No areas of indigenous biodiversity or historic heritage value have been identified in relation to the site, so the farm complies with subpart 1(j).

Subpart 2 of Policy 6 is particularly relevant. Marine 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.

26.3 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.

26.4 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.

26.5 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 MEP.

26.6 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.

26.7 Policy 18

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

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

There are four moorings in the vicinity of the site. Moorings 1402 and 46 are located approximately 90 metres southwest of the site. Moorings 1859 and 243 are located approximately 60 metres south of the farm.

The site does not impede access to these moorings. The proposed realignment enhances access to these moorings.

There are no formal water ski lanes.

Opportunities for recreational fishing may be enhanced by the presence of the marine farm.

The proposed realignment will enhance public use and appreciation of the area.

26.8 Policy 22

Policy 22 requires an assessment of sedimentation levels, and that use will not result in a significant increase in those levels. Robertson's ecological 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.

26.9 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 oysters are only transitory, and quickly become indistinguishable from background sedimentation.

Conclusion

The effects of the application on the values being protected under the NZCPS are no more than minor and will result in no change to the existing status.

Assessment under the Marlborough Regional Policy Statement

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

Taken overall, the application is consistent with the relevant objectives and policies of the Regional Policy Statement.

Assessment under the Marlborough Sounds Resource Management Plan

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

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

Assessment under the Proposed Marlborough Environment Plan

An analysis of consistency with the Proposed Marlborough Environment Plan (MEP) is contained in Appendix C of the AEE.

Taken overall, the application is consistent with the relevant objectives and policies of the MEP.

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

Marine Farm 8280 being MFL 076

The value of investment of the existing consent holder is

As part of this application to renew site 8280, the applicant is seeking to reconsult 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). Marlborough Oysters operation produces approximately 1.2million dozen seed oysters and 50,000 ready-to-market oysters per year. The total marine farm operation income is in the order of \$2.65 million per year. Once the oysters have been ongrown by PMF their total value on the domestic and/or export markets is in the order of \$12 million per year. The applicant's site 8280 currently produces most of the ready-to-market oysters of the operation. The oysters are graded on the Marlborough Oyster barge at Whakitenga Bay then most are sent as seed to the PMF farms in Northland and the Coromandel. Some adult oysters are sent to the PMF factories for processing and sale. Marlborough Oysters employs six FTE.

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
Miscellaneous	Assessment of Environmental Effects Marine Farm 8280	Aquaculture Direct	-	-	AEE 8280 August 20.pdf (783 kB)
Ecological report	Ecological Effects Assessment - Marine Farm 8280	Robertson Environmental	-	-	RobEnv_EcolAsses Farm 8280_v1.0.pdf
Site Plan	8280 Renewal Locality Map	-	-	-	8280 Renewal Locality Map .pdf (4 MB)
Site Plan	8280 Realignment & Mooring Locations - Aerial Overlay	-	-	-	8280 Realignment & Mooring Locations - Aerial Overlay.pdf (2 MB)
Site Plan	8280 Realignment Site Plan	-	-	-	8280 Realignment Site Plan.pdf (315 kB)
Site Plan	8280 Realignment Layout Plan	-	-	-	8280 Realignment Layout Plan.pdf (165 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

00LYWZ

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

Marine farm 8280

Declaration

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

Yes

Authorised by (your full name)

Rebecca Jane Clarkson

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.



Application for Resource Consent – Coastal
&
Assessment of Environmental Effects

Date: August 2020

Marine Farm: 8280

Location: Wairangi Bay, Croisilles Harbour

Part A – Applicant Details

Application for Resource Consent – Coastal
Sections 88 and 145, Resource Management Act 1991

Applicant

Applicant Name:	Wairangi Bay Marine Farms Limited
Address:	447 Johns Road, Harewood Christchurch, 8051
Phone:	03 359 8200
E-Mail:	rewhiteley@xtra.co.nz

Agent

Agent Name:	Aquaculture Direct Limited
Address:	P O Box 213 Blenheim
Phone:	021 2442132
E-Mail:	rebecca@aquaculturedirect.co.nz

Part B – Property Details

Site Address:	Marine Farm Site 8280, Wairangi Bay, Croisilles Harbour, Marlborough
Legal Description:	Marine Farm 8280
Is there locale information in regards to the site?	No - there is no locale information in regards to the site
Site Description:	<p>The site is “located offshore of the southeastern shoreline of Wairangi Bay (Figure 3.1), approximately 1800 m east-north-east of Matakoi Point, Squally Cove, Croisilles Harbour. Croisilles Harbour is the western-most harbour in the Marlborough Sounds and opens into Tasman Bay. Squally Cove is some 38.5 km by sea from the entrance to Port Nelson. The Cove (as measured from Red Clay Point on the northern side to the western headland of Symonds Bay on the southern side) has a coastline length of approximately 24 km and covers an area of sea of approximately 1109 ha. Wairangi Bay itself has a coastline length of approximately 5.5 km, is roughly 2.2 km long and up to 800 m wide, and covers an area of sea of approximately 160 ha”. (Robertson Environmental Report 0105, attached).</p> <p>The farm sits alongside other farms on the southeastern shoreline of Wairangi Bay. The nearest marine farms to 8280 are the adjacent farm to the east 8279 and to the west 8281.</p> <p>The adjacent land is zone Rural 1.</p> <p>The site lies within the boundary of Coastal Marine Zone 2 (CMZ2).</p>
Owners and occupiers of the application site?	Yes - the applicant is the only owner and occupier

Part C – Proposed Activity

Description of the activity:	<p>Wairangi Bay Marine Farms Limited (Wairangi Bay Marine Farms) has applied to renew the existing resource consent MFL076 for marine farm site 8280 (total 3ha) for the purpose of farming Greenshell mussels (<i>Perna canaliculus</i>), scallops (<i>Pecten novaezelandiae</i>) and Pacific oysters (<i>Crassostrea gigas</i>) using conventional long line methods including oyster farming methods (refer attached layout diagrams illustrating the site.)</p> <p>Marine Farm Licence 076 was issued to the original consent holder in July 1980 under the Marine Farming Act 1971 and assigned to Wairangi Bay Marine Farms in May 2003. MFL076 expires on 31st December 2024.</p> <p>This application is to renew consent for 8280 and to revalidate the consent boundaries in line with the structures as per the application site plan.</p> <p>The realignment will not be more than 200 metres from shore. Apart from the slight shift seaward, every other respect it remains the same as was permitted prior to 1996. As such is it assessed as a controlled activity.</p> <p>The application is for a continuation of the activities currently consented at the site. No changes to the activities are proposed.</p> <p>The site lies within the boundary of the CMZ2, an area in which marine farming activity is a discretionary activity.</p> <p>As this is a 'like for like' application by an existing permit holder, the application should be processed under section 165ZH for the RMA. 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 conducted in the applicant's favour in terms of section 165ZJ(1).</p> <p>The expiry date of the existing consent is 2024, along with over 250 marine farms located in the Marlborough Sounds.</p> <p>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.</p> <p>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</p>
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submitters.

The applicant seeks a 20-year term, commencing in 2023 and expiring in 2043.

The site dimensions are as per the layout plans attached. The application includes 9 long lines, each being approximately 110 metres long.

There are currently 5 lines installed and operating at the site that grow Pacific oysters.

The site layout is attached to the application.

The structures will be redeveloped to ensure that they are in accordance with the site layout.

Wairangi Bay Marine Farms Limited's Director, Ron Whiteley, is Christchurch based and has had interests in the aquaculture industry since 1996. Wairangi Bay Marine Farms has held the consent for 8280 since 2003.

The applicant's farm is now managed by Marlborough Oysters Ltd (Marlborough Oysters). Marlborough Oysters has been established by Aaron and Debbie Pannell to grow juvenile oysters to a size suitable for transportation to other areas for on-growing, in a joint venture with Moana NZ Ltd (MNZ), (a fully Māori owned company which takes a uniquely long term view in all their operations) which then grows the oysters to market size in Northland and the Coromandel. This is further explained in the 'operation' section below.

Aaron Pannell has been involved in the marine farming industry for the past 28 years, including employment in various operational and research roles at Marlborough Mussel Company Ltd, Aqua King Ltd and Sanford Ltd. Through these roles Aaron has developed considerable knowledge and experience of the mussel and oyster industries, as well as the Croisilles Harbour area.

The company employs six full time staff.

The farm is managed in accordance with the A+ Sustainable Management Framework for Pacific Oysters¹ which was launched in 2015 and replaces the New Zealand Oyster Industry Code of Practice.

The A+ programme defines expected industry best management practices, and includes a cycle of continuous reporting, review, and improvement across a range of objectives, towards:

- Maintaining healthy ecosystems
- Protecting our aquatic environment
- Managing waste responsibly
- Using resources efficiently
- Safe and ethical seafood
- Respecting iwi values

	<ul style="list-style-type: none"> • Respect for our communities <p>The A+ programme requires annual self-reporting and participation in three yearly independent verification.</p> <p>Marlborough Oysters is also an active participant of the Marine Farming Association's Environmental Programme.</p> <p>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:</p> <ul style="list-style-type: none"> • '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'. <p>The application has been assessed against all relevant policies and plans as being an appropriate activity in an appropriate location.</p>
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	As an existing farm, the site has already been subject to a fish farm license and/or an aquaculture decision which assessed any undue adverse effects on fishing. However, a UAE will be required for any 'new' space created by the realignment.
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 MFL076 in Wairangi, Croisilles Harbour, to seed, cultivate and harvest species Greenshell mussels (<i>Perna canaliculus</i>), scallops (<i>Pecten novaezelandiae</i>) and Pacific oysters (<i>Crassostrea gigas</i>) including occupation of 3ha 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

	<p>waste matter) and all other activities that are ancillary to the operation on site 8280.</p> <p>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)).</p> <p>The proposed activity has been assessed against the relevant provisions of the:</p> <ol style="list-style-type: none"> 1. New Zealand Coastal Policy Statement 2010; 2. Marlborough Regional Policy Statement; 3. Marlborough Sounds Resource Management Plan; and 4. Proposed Marlborough Environment Plan <p>at Sections 23 and 24/Appendices A – C of this Assessment of Environmental Effects.</p>
<p>Are any additional resource consents needed for the proposal to which this application relates?</p>	<p>No - no additional resource consents are needed for the proposal to which this application relates</p>

Part D – Consent Information

Consent Type:	Coastal
Subcategory type:	Marine Farm
Description of consent being applied for:	<p>Wairangi Bay Marine Farms Limited (Wairangi Bay Marine Farms) has applied to renew the existing resource consent MFL076 for marine farm site 8280 (total 3ha) for the purpose of farming Greenshell mussels (<i>Perna canaliculus</i>), scallops (<i>Pecten novaezelandiae</i>) and Pacific oysters (<i>Crassostrea gigas</i>) using conventional long line methods including oyster farming methods (refer attached layout diagrams illustrating the site.)</p> <p>The application has been assessed against all relevant policies and plans as being an appropriate activity in an appropriate location.</p> <p>Marine Farm Licence 076 was issued to the original consent holder in July 1980 under the Marine Farming Act 1971 and assigned to Wairangi Bay Marine Farms in May 2003. MFL076 expires on 31st December 2024.</p> <p>This application is to renew consent for 8280 and to revalidate the consent boundaries in line with the structures as per the application site plan.</p> <p>The application is for a continuation of the activities currently consented at the site. No changes to the activities are proposed.</p> <p>The site lies within the boundary of the CMZ2, an area in which marine farming activity is a discretionary activity.</p> <p>As this is a 'like for like' application by an existing permit holder, the application should be processed under section 165ZH for the RMA. 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 conducted in the applicant's favour in terms of section 165ZJ(1).</p>
Triggering rules assessment:	<p>The application is for a new consent to replace MFL076 in Wairangi, Croisilles Harbour, to seed, cultivate and harvest species Greenshell mussels (<i>Perna canaliculus</i>), scallops (<i>Pecten novaezelandiae</i>) and Pacific oysters (<i>Crassostrea gigas</i>) including occupation of 3ha 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 8280.</p>

The realignment will not be more than 200 metres from shore. Apart from the slight shift seaward, in every other respect it remains the same as was permitted prior to 1996. As such is it assessed as a controlled activity.

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.

As an existing farm, the site has already been subject to a fish farm license and/or an aquaculture decision which assessed any undue adverse effects on fishing. However, a UAE will be required for any 'new' space created by the realignment.

Part E – Assessment of Environmental Effects

1.0 OVERVIEW

Wairangi Bay Marine Farms Limited (Wairangi Bay Marine Farms) has applied to renew the existing resource consent MFL076 for marine farm site 8280 (total 3ha) for the purpose of farming Greenshell mussels (*Perna canaliculus*), scallops (*Pecten novaezelandiae*) and Pacific oysters (*Crassostrea gigas*) using conventional long line methods including oyster farming methods (refer attached layout diagrams illustrating the site.)

The application has been assessed against all relevant policies and plans as being an appropriate activity in an appropriate location.

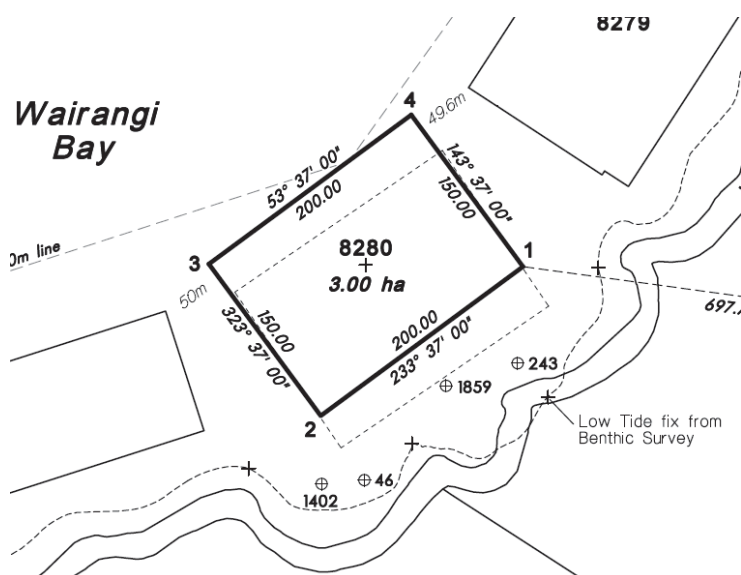
2.0 INTRODUCTION

2.1 Existing Resource Consent

Marine Farm Licence 076 was issued to the original consent holder in July 1980 under the Marine Farming Act 1971 and assigned to Wairangi Bay Marine Farms in May 2003. MFL076 expires on 31st December 2024.

2.2 Resource Consent Application

This application is to renew consent for 8280 and to revalidate the consent boundaries in line with the structures as per the application site plan below:



The realignment will not be more than 200 metres from shore. Apart from the slight shift seaward, every other respect it remains the same as was permitted prior to 1996. As such is it assessed as a

controlled activity.

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 for the RMA. 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 conducted in the applicant's favour in terms of section 165ZJ(1).

The expiry date of the existing consent is 2024, along with over 250 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.

The applicant seeks a 20-year term, commencing in 2023 and expiring in 2043.

2.3 Farm Layout Plan

The site dimensions are as per the layout plans attached. The application includes 9 long lines, each being approximately 110 metres long.

There are currently 5 lines installed and operating at the site that grow Pacific oysters.

The site layout is attached to the application.

The structures will be redeveloped to ensure that they are in accordance with the site layout.

2.4 The Applicant

Wairangi Bay Marine Farms Limited's Director, Ron Whiteley, is Christchurch based and has had interests in the aquaculture industry since 1996. Wairangi Bay Marine Farms has held the consent for 8280 since 2003.

2.5 The Operator

The applicant's farm is managed by Marlborough Oysters Ltd (Marlborough Oysters). Marlborough Oysters has been established by Aaron and Debbie Pannell to grow juvenile oysters to a size suitable for transportation to other areas for on-growing, in a joint venture with Moana New Zealand Ltd, (a fully Māori owned company which takes a uniquely long term view in all their operations). MNZ then grows the oysters to market size in Northland and the Coromandel. This is further explained in the 'operation' section below.

Aaron Pannell has been involved in the marine farming industry for the past 28 years, including employment in various operational and research roles at Marlborough Mussel Company Ltd, Aqua King Ltd and Sanford Ltd. Through these roles Aaron has developed considerable knowledge and experience of the mussel and oyster industries, as well as the Croisilles Harbour area.

The company employs six full time staff.

The farm is managed in accordance with the A+ Sustainable Management Framework for Pacific Oysters which was launched in 2015 and replaces the New Zealand Oyster Industry Code of Practice.

The A+ programme defines expected industry best management practices, and includes a cycle of continuous reporting, review, and improvement across a range of objectives, towards:

- Maintaining healthy ecosystems
- Protecting our aquatic environment
- Managing waste responsibly
- Using resources efficiently
- Safe and ethical seafood
- Respecting iwi values
- Respect for our communities

The A+ programme requires annual self-reporting and participation in three yearly independent verification.

Marlborough Oysters is also 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'.

2.6 The Operation

Marlborough Oysters have formed a joint venture with MNZ to grow selectively bred hatchery spat in Marlborough's cooler, deeper waters prior to on-growing them on farms in Northland and the Coromandel. This reduces the virulence and adverse effects arising from the oyster herpes virus OSHV-1 as well as creating resilience during the more sensitive early growth stages. The hatchery spat is grown to a 'safer' size of approximately 50mm by Marlborough Oysters. This seed (as it is then known) is transferred up to North Island oyster farms for conditioning and finishing.

MNZ is New Zealand's largest oyster participant, representing approximately 50% of the industry. MNZ is a fully Māori owned company:

"All profits we make are returned to Māori in the form of dividends, with the balance retained to fund long-term growth initiative of Moana New Zealand. Iwi use these dividends to fund their own community based projects and initiatives like health and education or to support investment in their own businesses which in turn generates more employment and profits. Moana New Zealand profits can never be used for personal gain.

We recognise that improved future benefits will be delivered to Iwi through increasing value rather than volume, given finite marine resources. We also recognise that we must be profitable to be able to reinvest in sustainable management.

Social sustainability is a key element to our success. The focus is on integrating corporate social and environmental responsibility into our business objective.

We take a uniquely long-term view in everything we do. Our sustainability journey is designed to ensure we go above and beyond what is required of us by law, and ensures we all understand and apply our beliefs and values on a daily basis, both at sea or on land. We all have our part to play."

MNZ's oyster operations are mainly Northland and Coromandel based, with two processing factories, located in South Auckland and the Coromandel. Over the past 8 - 9 years, and for product quality reasons, MNZ have been converting from 'wild caught spat' farming to selectively bred 'hatchery spat' farming. The virus issue has attributed to a rapid acceleration of this transition. MNZ consider the Marlborough Oyster seed operation to be of 'critical importance' to their business.

In recent years Marlborough Oysters have developed a ground-breaking new farming system which is a completely new way of thinking in how the industry grows and harvests oysters. FlipFarm takes efficiency and equipment resilience to a level never seen before in oyster farming systems².

FlipFarm largely automates the processes of filling, emptying and drying of floating baskets and crops while still providing the excellent growing conditions associated with floating systems. The key advantages over traditional systems are:

- Excellent oyster growth and conditioning

- Huge reduction in labour costs and effort
- High speed effortless drying of gear and crop
- Extremely robust, can handle a wide range of sea conditions
- Only oysters are transported for grading so less sea trips required
- Smaller land base required, option to grade at sea
- Efficient systems established for treatment of hard fouling
- Options being developed to quickly lower and raise lines in extreme weather conditions
- Quick assembly of components and easy installation



The benefits to the community are:

- A significant reduction in gear lost off the farm
- A significant reduction in time servicing the farm
- More streamlined and recessive visual effects
- Significantly reduced chance of odour effects
- A significant reduction in space required for gear storage onshore or near the farms

3.0 THE APPLICATION

2.1 Size: The site is 3ha.

2.2 Structures: The site dimensions will be: inshore boundary 200 metres long, outer boundary 200 metres, north eastern boundary 150 metres long and south western boundary 150 metres long (refer attached site plan).

There will be a total of 9 longlines (refer attached layout diagram).

2.3 Species: It is proposed to farm and harvest Greenshell mussels (*Perna canaliculus*), scallops (*Pecten novaezelandiae*) and Pacific oysters (*Crassostrea gigas*) using conventional long line methods including long line oyster farming methods.

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

4.0 PERMITTED ACTIVITIES

The application is for a new consent to replace MFL076 in Wairangi, Croisilles Harbour, to seed, cultivate and harvest species Greenshell mussels (*Perna canaliculus*), scallops (*Pecten novaezelandiae*) and Pacific oysters (*Crassostrea gigas*) including occupation of 3ha 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 8280.

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.

As an existing farm, the site has already been subject to a fish farm license and/or an aquaculture decision which assessed any undue adverse effects on fishing. However, a UAE will be required for any 'new' space created by the realignment.

5.0 TERMS OF CONSENT

MFL076 expires 31st December 2024.

The expiry date of the existing consent is 2024, along with over 250 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.

The applicant seeks a 20-year term, commencing in 2023 and expiring in 2043.

6.0 THE SITE - LOCATION

The site is *“located offshore of the southeastern shoreline of Wairangi Bay (Figure 3.1), approximately 1800 m east-north-east of Matakoi Point, Squally Cove, Croisilles Harbour. Croisilles Harbour is the western-most harbour in the Marlborough Sounds and opens into Tasman Bay. Squally Cove is some 38.5 km by sea from the entrance to Port Nelson. The Cove (as measured from Red Clay Point on the northern side to the western headland of Symonds Bay on the southern side) has a coastline length of approximately 24 km and covers an area of sea of approximately 1109 ha. Wairangi Bay itself has a coastline length of approximately 5.5 km, is roughly 2.2 km long and up to 800 m wide, and covers an area of sea of approximately 160 ha”*. (Robertson Environmental Report 0105, attached).

The farm sits alongside other farms on the southeastern shoreline of Wairangi Bay. The nearest marine farms to 8280 are the adjacent farm to the east 8279 and to the west 8281.

The adjacent land is zone Rural 1.

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

7.0 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 7 metres (N), 4 metres (E), 6 metres (S), and 7 metres (W).

The application includes 9 long lines, each being approximately 110 metres long.

There are currently 5 lines installed and operating at the site that grow Pacific oysters.

The site layout is attached to the application.

The warp surface loss is 45 metres at each end. The total backbone length is 990 metres (see line layout diagram for individual longline lengths).

The farm is currently identified as being slightly offsite in the northern corner as shown on the Marlborough District Council website (Smart Maps) and as per the attached Robertson Environmental Report. The applicant intends to redevelop the farm to incorporate the FlipFarm system in accordance with the proposed realignment and will ensure that the structures are in line with the consent boundary.

8.0 THE PRESENT ENVIRONMENT

8.1 The Marine Environment

In March 2020 Robertson Environmental, undertook a biological study of the ecology of the marine area of site 8280 (Robertson Environmental Report 0105, attached).

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

“4.3 Summary of Effects Assessment

An estimate of habitat change resulting from the proposed re-consent can be undertaken by importing the proposed design into a GIS environment. This allows a semi-quantitative estimate to be made of the benthic habitat likely to be impacted. The areal footprint of the re-consent area and existing surface farming structures overlaid on a map of benthic habitat types is shown above in Figure 3.3. Re-consent of the proposed site would not likely alter the firm muddy sand- or soft mud-dominated habitats. It is unlikely that those remaining habitats adjacent to the re-consent would be appreciably altered by the proposal. Given that the size of the survey area was selected based on the scale of proposed re-consent, these calculations suggest that approximately 61% of the soft mud habitat in the study area will be situated beneath the proposed re-consent.

Although the proposed re-consent would be situated above the soft mud habitat in the surveyed area, the relatively depauperate biological nature of the habitat, in this case dominated by highly mobile fauna commonly found beneath established shellfish farms in the Marlborough Sounds, means that it is unlikely that significant changes to ecology will occur. Indirectly, ecology in more distant habitats from the proposed re-consent (e.g. nearshore subtidal habitats inshore and, to a much lesser extent under, existing farming structures) are also unlikely to be affected by the re-consent given their distance from the farming structures, relatively large extent, shallow depth and moderate-high flushing potential driven by tidal flow and periodic wind and wave action.

5 Discussion & Conclusions

Broad scale habitat classification and fine scale inspection (via remote sensing / drop camera) of

coastal marine areas as described in this study provides a detail of ecologically meaningful units (habitat type and associated fauna), that can be used as a baseline to detect changes in spatial extent over time, or as a result of a proposed activity. We note that, because the site of the proposed re-consent where existing surface farming structures are situated is confined to the offshore soft muddy, subtidal area, the current assessment mainly focuses on classifying only habitat and in-habitant fauna physically associated with this zone of the re-consent.

In terms of the overall physical environment, the study area, including the re-consent, exhibits properties characteristic of the upper reaches of a deep, subtidal dominated estuary (Robertson et al. 2016), with soft mud featuring as the dominant substratum bordered to the east by a smaller area of nearshore reef habitat. Mud (i.e. silt and clay), which is the most common subtidal habitat in the sheltered Marlborough Sounds (McKnight and Grange, 1991) and has been traditionally targeted for marine farming activities, typically harbours low value biological communities made up of fewer taxa more tolerant of disturbed/muddy conditions (Pearson and Rosenberg 1978; Robertson et al. 2015). For this reason, mud substratum is considered suitable for consideration for marine farming activities in the Marlborough Sounds. Biologically, the results of the survey of this subtidal habitat confirm this theory, with very few epibenthic macrofauna present within the soft mud habitat, based on representative drop camera photos taken below and adjacent to the consent. Indeed, with the exception of localised coverage of foliose red macroalgae, no species, including sea birds, fish and marine mammals, defined by DoC or MDC as having ecological significance were observed during this re-consent survey (DoC 1996-2006; Davidson et al. 2010, 2011, 2018).

Shellfish farming is expected to enhance rates of sedimentation of organic-rich, fine-grained particles (biodeposits of faeces and pseudofaeces), and the deposition and accumulation of live shellfish, shell litter onto the seabed (Keeley et al. 2009; Stenton-Dozey and Broekhuizen 2019). In this respect, the survey results showed benthic shell debris levels and apparent oxygenation of surface sediments, the latter a screening-level indicator of organic enrichment, to be within the very low impact range known for shellfish farms in the Marlborough Sounds. While it is likely that continued shellfish farming at this site will result in the deposition of more shell and fine-grained particles under surface structures, it is highly unlikely that biogeochemical conditions within the benthic environment (e.g. biotic community structure, surface sediment grain size distribution and oxygenation/redox conditions) will be further altered by the activity.

Overall, the proposal is considered relatively minor in terms of ecological impacts based on the farming activity, long history of farming at the site, and the existing values, and therefore the life-supporting capacity of associated coastal ecosystems will be maintained through the operation of the consent.

6.2 Recommendations for addressing adverse residual effects that cannot be avoided or minimised
Monitoring of the associated coastal environment is not proposed given that the re-consent is expected to have minor effects on associated ecological values.

6.3 Recommendations for boundary adjustments

All existing consent and farming structures are located over soft substratum >50 m offshore of Mean Low Water Mark (MLWM) (refer Figure 3.3), therefore no boundary adjustments are suggested. No change to the consented number of backbones is suggested.” Robertson Environmental Report 0105, attached).

The survey area includes the proposed ‘new area’ and therefore the proposed realignment of the consent boundary is appropriate in the context of the marine environment.

The report also indicates that the impact of the current activities is in line with expectations of the environmental impacts of marine 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.

8.2 The Land Environment

The site is *“located offshore of the southeastern shoreline of Wairangi Bay (Figure 3.1), approximately 1800 m east-north-east of Matakoi Point, Squally Cove, Croisilles Harbour. Croisilles Harbour is the western-most harbour in the Marlborough Sounds and opens into Tasman Bay. Squally Cove is some 38.5 km by sea from the entrance to Port Nelson. The Cove (as measured from Red Clay Point on the northern side to the western headland of Symonds Bay on the southern side) has a coastline length of approximately 24 km and covers an area of sea of approximately 1109 ha. Wairangi Bay itself has a coastline length of approximately 5.5 km, is roughly 2.2 km long and up to 800 m wide, and covers an area of sea of approximately 160 ha”*. (Robertson Environmental Report 0105, attached)

The adjacent land is zoned Rural 1.

“The landscape adjacent to the farm features coastal hillslopes which rise from a relatively narrow band of rocky cobbled intertidal to ridges approximately 200-300 m in height. Predominantly landuse cover is regenerating native vegetation and, to a lesser extent, commercial forestry (currently supporting maturing Pinus radiata)”. (Robertson Environmental Report 0105, attached).

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

9.0 NAVIGATION MATTERS

9.1 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.

There are many examples of incorrect cadastral mapping in the Marlborough Sounds locating farms within 50 metres of the shore and it was not the intention for this to occur. In any case the

proposed realignment will move the farm a further 50 metres offshore thus freeing up shoreline access.

The proposed realignment will retain the farm's current position no greater than 200 metres from shore.

9.2 Headlands

There are no headlands immediately adjacent to the site.

9.3 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 applicant has had informal feedback from a resident requesting that the outside centre of the farms be marked to aid visibility in low light. The applicant has commissioned customized orange oyster floats which will be implemented as soon as is practicable.

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

9.4 Anchorages or Mooring Areas (Formal/Informal)

There are four moorings in the vicinity of the site. Moorings 1402 and 46 are located approximately 90 metres southwest of the site. Moorings 1859 and 243 are located approximately 60 metres south of the farm. Moorings 1402, 46 & 243 appear to be offsite from their consented location.



The site does not impede access to these moorings.

The moorings were consented after the farm however in recognition of their proximity to the farm the applicant is applying to realign the consent boundary seaward. An aerial overlay of the proposed realignment as well as the consented moorings including their swing circles shows that the proposed realignment will enhance access to the moorings.

There is not a jetty in the vicinity of the site.

9.5 Indirect Effects – Servicing Vessels at Site

The applicant estimates farming and harvesting vessels will visit the site on an average of 3 hours per week at variable times, for periods of 0.5 to 8 hours to undertake farm maintenance, seeding and harvesting.

The total number of hours spent on these activities is estimated to be in the order of 150 hours annually.

9.6 Water Ski Lanes

There are no formal water ski lanes in the vicinity.

9.7 Sub-Marine Cables

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

10.0 AESTHETIC

10.1 Land Zoned for Residential Use or Proximity to Residences

The land adjacent to the site is zone Rural 1.

The nearest residence is approximately 120 metres on the adjacent land from the site.

10.2 Scenic Value

10.2.1 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 MEP.

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).³ The application site is within an AOLV.

The proposed Marlborough Environment Plan (MEP) contains landscape overlay maps based on the 2015 Marlborough Landscape Study.⁴ 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.⁵ 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, 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 any significant ecological values, as addressed elsewhere in this application. In addition, Pacific oysters are naturally occurring in New Zealand and are indigenous. Aquaculture is perhaps the only form of farming where the effects are fully reversible.⁶

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).

10.2.2 Natural Character

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

10.2.3 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 landscape adjacent to the farm features coastal hillslopes which rise from a relatively narrow band of rocky cobbled intertidal to ridges approximately 200-300 m in height. Predominantly landuse cover is regenerating native vegetation and, to a lesser extent, commercial forestry (currently supporting maturing Pinus radiata)”. (Robertson

Environmental Report 0105, attached).

The implementation of FlipFarm technology further diminishes visual effects.

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 ECOLOGICAL VALUE

There is no ecological value identified in the Marlborough Sounds Resource Management Plan for Site 8280.

There are no ecologically significant marine sites identified in the MEP 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.

12.0 RECREATIONAL VALUE

The visual impact of the marine farm will not change.

Access to the coast for recreationalists is maintained. The proposal to shift the consent boundaries slightly seaward will further enhance access to the coast.

13.0 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 is not aware of any sites of historic heritage in the immediate vicinity.

14.0 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).

14.1 Commercial Fishing

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

14.2 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.

15.0 VISUAL EFFECTS OF THE FARM

Visual effects will remain the same as they exist at the present. The farm is consented for 9 longlines and the farm structures presently consist of 5 long lines each being approximately 110 metres in length containing black mussel buoys ranging between approximately 4 and 60 per line.

The implementation of FlipFarm technology further diminishes visual effects.

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.

16.0 EFFECTS ON WATER QUALITY AND ECOLOGY

Water quality of the area is suitable for marine farming. The site relies on water quality to enable the process of oyster farming to flourish. The site 8280 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 Robertson Environmental Report 0105.

No specific sites of marine ecological significance have been identified in the Robertson Environmental Report 0105.

17.0 EFFECTS ON PRODUCTIVITY

Water quality is unlikely to be a problem for oyster farming in Wairangi Bay. The continuing activity itself is unlikely to create any significant detrimental effects on water quality.

In terms of potential water column effects, it is important to consider whether shellfish farming at the site may impact productivity in adjacent marine area by way of phytoplankton depletion (i.e. extraction of phytoplankton and organic particulates by the farmed shellfish). The effects of phytoplankton depletion through shellfish consumption are generally only detectable at approximately the farm scale, and are of short duration (Morrissey et al. 2006). The significance of associated effects depends on a variety of factors, including the carrying capacity of the environment, prevailing

water currents, weather patterns, and catchment-derived nutrient inputs, with effects more pronounced if farms are located in physically constrained shallow areas with slow currents, compared to deep sites with strong flow and good flushing (Zeldis et al. 2008, 2013; Plew 2011; Broekhuizen et al. 2015). In their overview of ecological effects of shellfish farming, MPI (2013) stated that “unlike the extensive research on phytoplankton depletion by mussels, there is little data on the effects of oysters on the intertidal water column environment. International research suggests that the potential for adverse water quality-related effects as a result of intertidal oyster farming is low. This conclusion is not surprising given the significantly lower stocking densities than mussel farms and that intertidal farm sites are substantially or completely flushed with every tidal cycle”. The application site is located within a shallow, well-flushed area of Wairangi Bay, where circulation (driven by tides and wind) is high and residence time is low. On this basis, and given that no data has been presented to show the ecological carrying capacity of the Sounds has been reached, it is probable the site is unlikely to cause significant phytoplankton depletion outside the boundaries of the consent (Robertson Environmental Report 0105, attached).

18.0 THE BENTHIC ENVIRONMENT

In terms of the benthic environment, the ecology of this area has been documented in Robertson Environmental Report 0105 (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.

19.0 CUMULATIVE EFFECTS

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;⁷
- (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.⁸ 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.⁹

We also know that oyster farms provide benefits or 'ecosystem services', one of which is that oysters remove nutrients and sediment derived from land-use practices.

The applicant agrees with other stakeholders who are calling for a strategic assessment of cumulative effects.¹⁰ 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 MEP process, or in partnership with local and central government.

The overall cumulative effects of the existing farm in the context of other effects are considered to be minor.

20.0 ALIENATION OF PUBLIC SPACE

The general area of this part of Croisilles Harbour 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.

21.0 HARVESTING

As part of this application, the applicant seeks to continue harvesting oyster 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 9.5).

22.0 ON SHORE FACILITIES

Marlborough Oysters carry out the applicant's farm work and harvesting activities, either from their barge sited in Whakitenga Bay or on their vessels. However they do have storage and maintenance facilities based in Okiwi Bay.

23.0 VALUE OF INVESTMENT

As part of this application to renew site 8280, the applicant is seeking to 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).

Marlborough Oysters operation produces approximately 1.2 million dozen seed oysters and 50,000 ready-to-market oysters per year. The total marine farm operation income is in the order of \$2.65 million per year. Once the oysters have been ongrown by MNZ their total value on the domestic and/or export markets is in the order of \$12 million per year. The applicant's site 8280 currently produces most of the ready-to-market oysters of the operation.

The oysters are graded on the Marlborough Oyster barge at Whakitenga Bay then most are sent as seed to the MNZ farms in Northland and the Coromandel. Some adult oysters are sent to the MNZ factories for processing and sale.

Marlborough Oysters employs six FTE.

24.0 COMMUNITY CONTRIBUTION

Marlborough Oysters provides positive social benefits to the local community including by:

- Providing vessels for community events such as fireworks displays
- Sponsorship of sporting teams/participants/events
- Support of community events with oysters

25.0 PART II RESOURCE MANAGEMENT ACT ISSUES

25.1 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 oysters 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.

25.2 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 MEP, 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 landscape adjacent to the farm features coastal hillslopes which rise from a relatively narrow band of rocky cobbled intertidal to ridges approximately 200-300 m in height. Predominantly landuse cover is regenerating native vegetation and, to a lesser extent, commercial forestry (currently supporting maturing Pinus radiata)”. (Robertson Environmental Report 0105, attached).

(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.

25.3 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.

26.0 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.

26.1 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.

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

26.2 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 Wairangi Bay.

No areas of indigenous biodiversity or historic heritage value have been identified in relation to the site, so the farm complies with subpart 1(j).

Subpart 2 of Policy 6 is particularly relevant. Marine 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.

26.3 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.

26.4 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.

26.5 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 MEP.

26.6 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.

26.7 Policy 18

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

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

There are four moorings in the vicinity of the site. Moorings 1402 and 46 are located approximately 90 metres southwest of the site. Moorings 1859 and 243 are located approximately 60 metres south of the farm.

The site does not impede access to these moorings. The proposed realignment enhances access to these moorings.

There are no formal water ski lanes.

Opportunities for recreational fishing may be enhanced by the presence of the marine farm.

The proposed realignment will enhance public use and appreciation of the area.

26.8 Policy 22

Policy 22 requires an assessment of sedimentation levels, and that use will not result in a significant increase in those levels. Robertson's ecological 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.

26.9 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 oysters are only transitory, and quickly become indistinguishable from background sedimentation.

Conclusion

The effects of the application on the values being protected under the NZCPS are no more than minor and will result in no change to the existing status.

27.0 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.

28.0 PROPOSED MARLBOROUGH ENVIRONMENT PLAN

An analysis of consistency with the Proposed Marlborough Environment Plan (MEP) is contained in Appendix C.

Taken overall, the application is consistent with the relevant objectives and policies of the MEP.

29.0 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

The applicant has sent an informal email to the local residents group informing them of his intention to submit this application and inviting engagement.

30.0 CONCLUSION

The applicant considers that the renewal of site 8280 is appropriate, thereby allowing the continued farming of Pacific oysters at the site.

The site is in that part of Croisilles Harbour 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 therapeutants 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: <ul style="list-style-type: none"> • clustering activities with similar effects; • ensuring activities reflect the character and facilities available in the communities in which they are located; • promoting the creation and maintenance of buffer zones (such as stream banks or 'greenbelts'); • locating activities with noxious elements in areas where adverse environmental effects can be avoided, remedied or mitigated. 	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 A+ Sustainable Management Framework for Pacific Oysters.
	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.	<i>"The landscape adjacent to the farm features coastal hillslopes which rise from a relatively narrow band of rocky cobbled intertidal to ridges approximately 200-300 m in height. Predominantly landuse cover is regenerating native vegetation and, to a lesser extent, commercial forestry (currently supporting maturing Pinus radiata)".</i> (Robertson Environmental Report – attached). 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	Refer above.

	<p>where the adverse effects of such activities can be avoided, remedied or mitigated.</p> <p>Policy 1.3: To consider the effects on those qualities, elements and features which contribute to natural character, including:</p> <ul style="list-style-type: none"> a) Coastal and freshwater landforms; b) Indigenous flora and fauna, and their habitats; c) Water and water quality; d) Scenic or landscape values; e) Cultural heritage values, including historic places, sites of early settlement and sites of significance to iwi; and f) Habitat of trout. 	<p>These matters have been considered in the assessment of environmental effects.</p>
	<p>Policy 1.4: In assessing the actual or potential effects of subdivision, use or development on natural character of the coastal and freshwater environments, particular regard shall be had to the policies in Chapters, 3, 4, 5, 6, 12, 13 and Sections 9.2.1, 9.3.2 and 9.4.1 in recognition of the components of natural character.</p>	<p>The application will not have any additional impact on the components of these policies which impact natural character values.</p>
	<p>Policy 1.6: In assessing the appropriateness of subdivision, use or development in coastal and freshwater environments regard shall be had to the ability to restore or rehabilitate natural character in the area subject to the proposal.</p>	<p>Any residual impact on natural character will naturally rehabilitate on removal of the farm.</p>
	<p>Policy 1.7: To adopt a precautionary approach in making decisions where the effects on the natural character of the coastal environment, wetlands, lakes and rivers (and their margins) are unknown.</p>	<p>The effects of this application are not unknown and are discussed elsewhere in the assessment of environmental effects. A precautionary approach is not justified.</p>
<p>Ch 4, 4.3, Obj 1: The protection of significant indigenous flora and fauna (including trout and salmon) and their habitats from the adverse effects of use and development</p>	<p>Policy 1.2: Avoid, remedy or mitigate the adverse effects of land and water use on areas of significant ecological value.</p>	<p>The effect of the marine farm on the adjacent area will not have any effect on the flora and fauna of this area.</p>

Ch 5, 5.3, Obj 1: Management of the visual quality of the Sounds and protection of outstanding natural features and landscapes from inappropriate subdivision, use and development	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 should be mitigated and provision made for remedying those effects, to the extent practicable.	There are no additional adverse effects on public access caused by the marine farm.
	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;	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.

	<ul style="list-style-type: none"> 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. 	
	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.	<p>Exclusive occupation of the consent area is not sought. There are four moorings in the vicinity of the site. Moorings 1402 and 46 are located approximately 90 metres southwest of the site. Moorings 1859 and 243 are located approximately 60 metres south of the farm.</p> <p>The site does not impede access to these moorings.</p>
	Policy 1.12: To enable a range of activities in appropriate places in the waters of the Sounds including marine farming, tourism and recreation.	Policy 1.12 enables marine farming in appropriate places. Site 8280 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	NA

	August 1996 as controlled activities, apart from exceptions in Appendix D2 in the Plan.	
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 and/or seabed on any of the following: [criteria specified in Plan].	There will be no additional disturbances of the seabed.
Ch 9, 9.4A.1, Obj 1:	n/a	These policies are no longer relevant due to abolition of AMAs through legislation.
Ch 19, 19.3, Obj 1: Safe, efficient and sustainably managed water transport systems in a manner that avoids, remedies and mitigates adverse effects.	Policy 1.1: Avoid, remedy or mitigate the adverse effects of activities and structures on navigation and safety, within the coastal marine area.	There have been no reported navigational incidences in the bay. There will no changes to the existing consent conditions regarding the navigational aids placed on the farm.
Ch 22, 22.3, Obj 1: To avoid, remedy and mitigate the adverse effects of unreasonable noise, while allowing for reasonable noise associated with port activities.	Policy 1.1: Avoid, remedy and mitigate community disturbance, disruption or interference by noise within coastal, rural, and urban areas.	The nearest residence is approximately 120 metres on the adjacent land from the site. A servicing vessel is estimated to spend approximately 150 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 13 and 26 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 13 and 26, 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 Robertson 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 marine 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 oyster farming at the site are likely to be limited, as per the Robertson 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]	<p>The ecological character of the site will be maintained (see Robertson 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.</p> <p>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.</p>

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 CM22 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]	Robertson 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 as 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.
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.

MEP Provision	Evaluation
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 10 and 26..
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).
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 section 10.
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;	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.

MEP Provision	Evaluation
<p>(b) setting standards/conditions that are consistent with the existing landscape values and that will require greater assessment where proposed activities and structures exceed those standards; and...</p> <p>[C, D]</p>	
<p>Policy 7.2.4 – Where resource consent is required to undertake an activity within an outstanding natural feature and landscape or a landscape with high amenity value, regard will be had to the potential adverse effects of the proposal on the values that contribute to the landscape.</p> <p>[R, C, D]</p>	See above.
<p>Policy 7.2.5 – Avoid adverse effects on the values that contribute to outstanding natural features and landscapes in the first instance. Where adverse effects cannot be avoided and the activity is not proposed to take place in the coastal environment, ensure that the adverse effects are remedied.</p> <p>[R, C, D]</p>	See above.
<p>Policy 7.2.7 – Protect the values of outstanding natural features and landscapes and the high amenity values of the Wairau Dry Hills and the Marlborough Sounds Coastal Landscapes by:</p> <p>(a) In respect of structures:</p> <ul style="list-style-type: none"> (i) avoiding visual intrusion on skylines, particularly when viewed from public places; (ii) avoiding new dwellings in close proximity to the foreshore; (iii) using reflectivity levels and building materials that complement the colours in the surrounding landscape; (iv) limiting the scale, height and placement of structures to minimise intrusion of built form into the landscape; (v) recognising that existing structures may contribute to the landscape character of an area and additional structures may complement this contribution; (vi) making use of existing vegetation as a background and utilising new vegetation as a screen to reduce the visual impact of built form on the surrounding landscape, providing that the vegetation used is also in keeping with the surrounding landscape character; and (vii) encouraging utilities to be co-located wherever possible... <p>[R, C, D]</p>	<p>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.</p>
<p>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.</p> <p>[C, D]</p>	<p>Existing farming and aquaculture already occurs within the embayment and general area. The proposal is consistent with this primary production character.</p>

MEP Provision	Evaluation
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 mapped 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 Robertson Environmental report, the proposed farm is consistent with policy 8.3.2(b).
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 Robertson 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;	Biodiversity offsetting is not justified in this case.

MEP Provision	Evaluation
<p>(d) there is a strong likelihood that the offsets will be achieved in perpetuity;</p> <p>(e) where the offset involves the ongoing protection of a separate site, it will deliver no net loss and preferably a net gain for indigenous biodiversity protection; and</p> <p>(f) offsets should re-establish or protect the same type of ecosystem or habitat that is adversely affected, unless an alternative ecosystem or habitat will provide a net gain for indigenous biodiversity.</p>	
<p>Objective 9.1 – The public are able to enjoy the amenity and recreational opportunities of Marlborough’s coastal environment, rivers, lakes, high country and areas of historic interest.</p> <p>[RPS, R, C, D]</p>	See sections 9, 10, 12, 14, 15 and 19 of the AEE.
<p>Policy 9.1.1 – The following areas are identified as having a high degree of importance for public access and the Marlborough District Council will as a priority focus on enhancing access to and within these areas:</p> <ul style="list-style-type: none"> (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... <p>[RPS]</p>	N/A
<p>Policy 9.1.2 – In addition to the specified areas in Policy 9.1.1, the need for public access to be enhanced to and along the coastal marine area, lakes and rivers will be considered at the time of subdivision or development, in accordance with the following criteria:</p> <ul style="list-style-type: none"> (a) there is existing public recreational use of the area in question, or improving access would promote outdoor recreation; (b) connections between existing public areas would be provided; (c) physical access for people with disabilities would be desirable; and (d) providing access to areas or sites of cultural or historic significance is important. <p>[RPS, C, D]</p>	See above. The farm will not prevent access to areas or sites of cultural and historic significance in the area.

MEP Provision	Evaluation
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: <ul style="list-style-type: none"> (a) whether the application is in an area identified as having a high degree of importance for public access, as set out in Policy 9.1.1; (b) the need for the activity/structure to be located in the coastal marine area and why it 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]	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 oysters, 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.

MEP Provision	Evaluation
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 13 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
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]	Oyster 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.

MEP Provision	Evaluation
<p>Policy 15.1.9 – Enable point source discharge of contaminants or water to water where the discharge will not result:</p> <ul style="list-style-type: none"> (a) in any of the following adverse effects beyond the zone of reasonable mixing: <ul style="list-style-type: none"> (i) the production of conspicuous oil or grease films, scums, foams or floatable or suspended materials; (ii) any conspicuous change in the colour or significant decrease in the clarity of the receiving waters; (iii) the rendering of freshwater unsuitable for consumption by farm animals; (iv) any significant adverse effect on the growth, reproduction or movement of aquatic life; or (c) in the flooding of or damage to another person's property. <p>[R, C]</p>	<p>Discharge from harvesting will not result in any of the specified adverse effects.</p>
<p>15.1.10 – Require any applicant applying for a discharge permit that proposes the discharge of contaminants to water to consider all potential receiving environments and adopt the best practicable option, having regard to:</p> <ul style="list-style-type: none"> (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. <p>[RPS, R, C]</p>	<p>See Robertson 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.</p>
<p>15.1.11 – When considering any discharge permit application for the discharge of contaminants to water, regard will be had to:</p> <ul style="list-style-type: none"> (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. <p>[RPS, R, C]</p>	<p>See above</p> <p>Discharge during harvest is temporary in nature and sedimentation soon reverts to background levels, consistent with policy 15.1.11(c).</p>

MEP Provision	Evaluation
<p>15.1.12 – After considering Policies 15.1.10 and 15.1.11, approve discharge permit applications to discharge contaminants into water where:</p> <ul style="list-style-type: none"> (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: <ul style="list-style-type: none"> (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. <p>[RPS, R, C]</p>	<p>Water discharged during harvesting will comply with SG standards in Appendix 5.</p>
<p>Policy 15.1.16 – The duration of any new discharge permit will be either:</p> <ul style="list-style-type: none"> (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. <p>With the exception of regionally significant infrastructure, no discharge permit will be granted subsequent to the one granted under (c), if the discharge still does not meet the water quality classification standards for the waterbody or coastal waters.</p> <p>[R, C]</p>	<p>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.</p> <p>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 is appropriate in these circumstances.</p>

Footnotes

¹ www.aplusaquaculture.nz

² www.flipfarm.co.nz

³ These areas are identified in accordance with the specific criteria set out in Appendix 1, Volume 1 of the MSRMP.

⁴ Boffa Miskell/Marlborough District Council *Marlborough Landscape Study* (August 2015).

⁵ *Environmental Defence Society Inc v New Zealand King Salmon Company Ltd* [2014] NZSC 38 at [101] and [105]; *Man O'War Farm Limited v Auckland Council* [2017] NZCA 24 (24 February 2017) at [65]; and *Western Bay of Plenty District Council v Bay of Plenty Regional Council* [2017] NZEnvC 147 at [165] – [167].

⁶ Davidson, R.J.; Richards L.A. 2014. Recovery of a mussel farm in Otanerau Bay, East Bay, Marlborough Sounds: 2002-2013. Prepared by Davidson Environmental Limited for Marlborough District Council. Survey and Monitoring Report No. 788.

⁷ 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

⁸ 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 Hoiere), 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>.

⁹ 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>

¹⁰ 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.



Wairangi Bay

8279

8280

8281

243

1859

1402





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Prepared: 14 July 2019

KEY

-  Marine Farm Boundary (existing)
-  Proposed realignment of 8280
-  Mooring (Consented position)
-  Mooring Swing Circle (Consented)

Aerial Image flown 2018.
Image sourced from LINZ Data Service and licensed for
re-use under Creative Commons Attribution 4.0 International
Licence (www.data.linz.govt.nz)

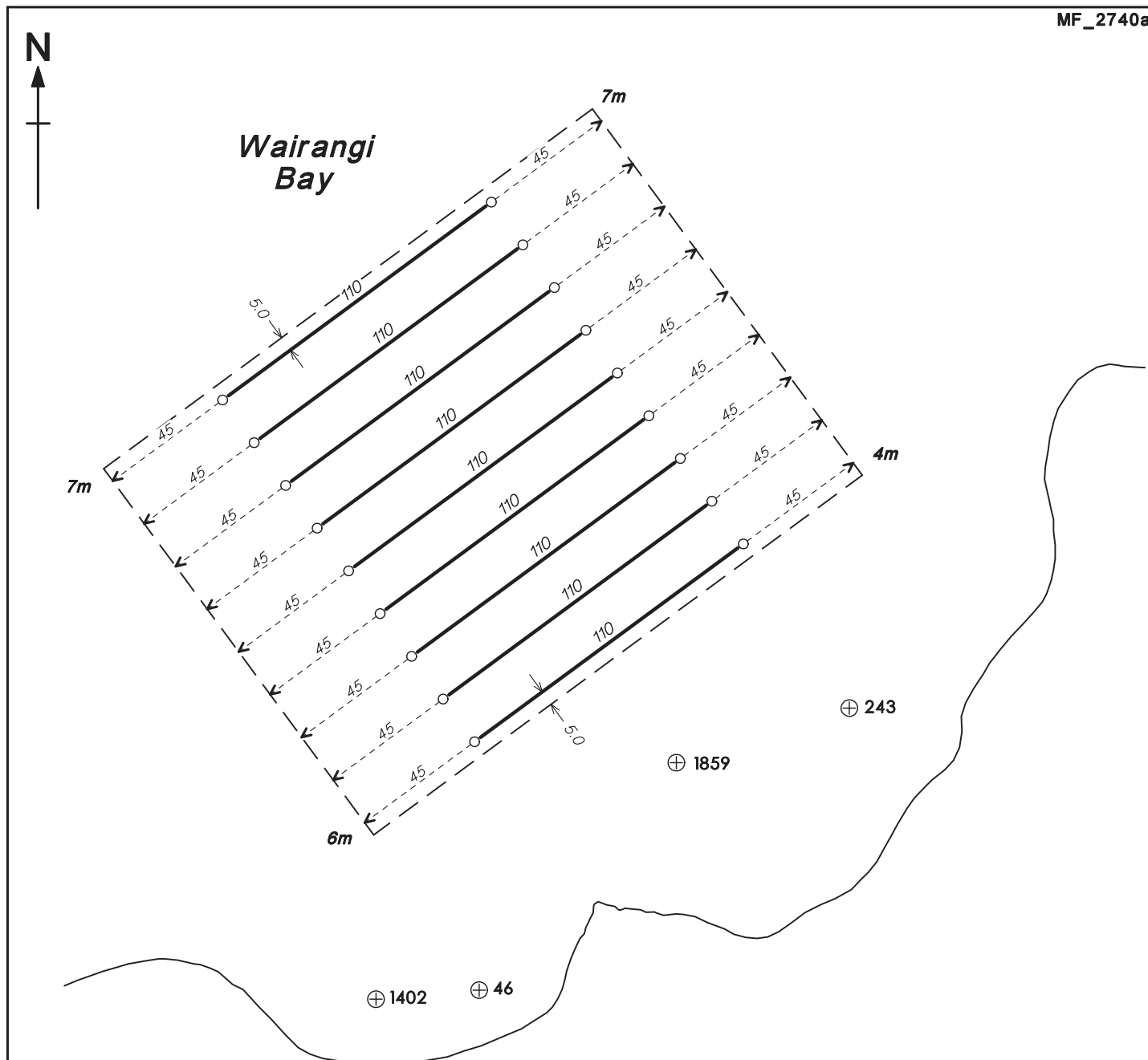
Marine Farm 8280

Wairangi Bay

Proposed Realignment of Marine Farm 8280 and Mooring Locations

Scale 1:2,000

25 0 25 50 75 100 125 Meters

**NOTE:**

Longline Spacing = 17.5m

Total Longlines = 9

Backbone Length = 110m

Total Backbone Length = 990m

Warp Surface Loss = 45m

REFERENCE

○ Orange Float

< Anchor

----- Anchor Warp

———— Backbone

Ref: MF_2740a
30 July 2020

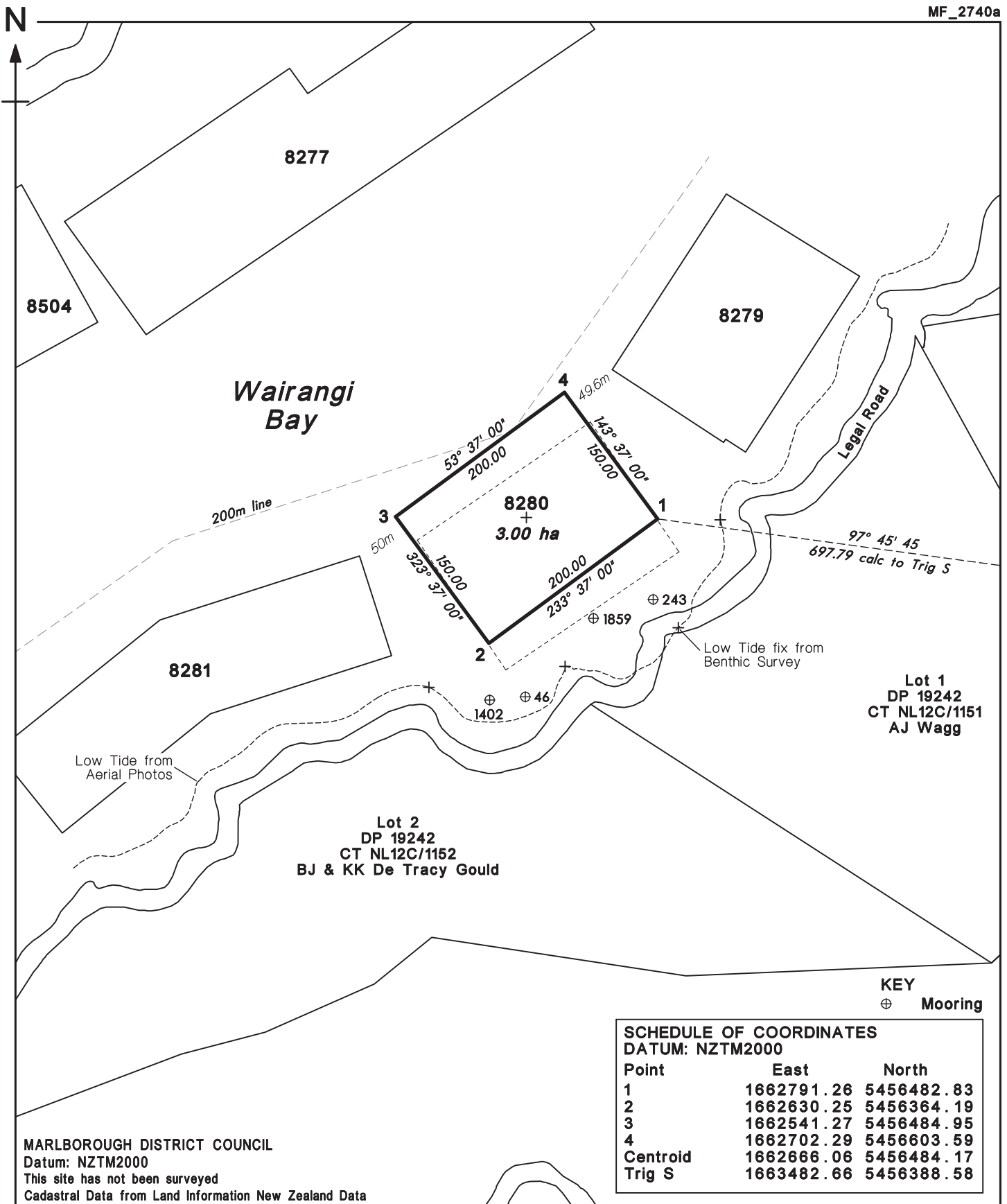
Structure Layout

Realignment of Marine Farm 8280

Wairangi Bay - Squally Cove

SCALE 1:2000

50 0 50 100



Proposed Coastal Permit Realignment of Marine Farm 8280 *Wairangi Bay - Squally Cove*

30 July 2020
MF_2740a

SCALE 1:5,000
50 0 100 200 300 400 metres



Topomap 50 Sheet: BP28

Base Topographical Data sourced from Land Information
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Prepared: 21 July 2020

Locality Map

Renewal of Marine Farm 8280
Wairangi Bay, Squally Cove, Croisilles Harbour

Scale 1:50,000

500 0 500 1000 1500 2000 2500 3000 3500 Meters



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ECOLOGICAL ASSESSMENT & REPORTING SERVICES




Marine Farm 8280, Wairangi Bay

Ecological Effects Assessment

For Marlborough Oysters Limited

March 2020

REPORT INFORMATION & QUALITY CONTROL

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Executive Summary

Marlborough Oysters Limited (on behalf of the consent holders) have applied to renew the existing resource consent for marine farm site 8280, Wairangi Bay, Croisilles Harbour, Marlborough Sounds. To understand and evaluate the ecological values present within the proposed site, Robertson Environmental Limited have undertaken an ecological assessment of the values and potential effects associated with the re-consent.

Desktop, database, and field survey identified two subtidal habitat types associated to the re-consent footprint. The deep subtidal habitat (Coastal Marine Zone 2, CMZ2, as per the operative Marlborough Sounds Resource Management Plan, MSRMP) to be covered by farming structures (presently to support production oyster crops) is dominated by soft mud and of low or limited ecological value. The area immediately shoreward of the proposed site identified with higher values includes nearshore subtidal reef habitat, but is not directly affected by the proposed re-consent. Key conclusions of the assessment were as follows:

- With the exception of highly localised patches of red foliose macroalgae, no rare species or communities were recorded within or directly adjacent to existing farming structures or wider surveyed area;
- The subtidal habitat (and inhabitant epibenthic macrofauna) directly affected is shallow and well-flushed, dominated by soft substratum (soft mud), relatively small in area, common among wider Wairangi Bay and adjacent coastal areas, and is of relatively low value ecologically; and,
- The magnitude of the potential effects, both direct and indirect, are low or negligible and the resultant significance of the potential adverse effect is generally very low.

Generally, the proposal is relatively minor in terms of ecological impacts based on the farming activity, long history of shellfish farming at the site, and the existing values, and therefore the life-supporting capacity of associated coastal ecosystems will be maintained through the operation of the consent.

It is recommended that discharges (fine sediment and/or organic matter) to water in the coastal environment be minimised, although discharge effects of harvesting oysters are seen as highly transitory, and quickly become indistinguishable from background sedimentation.

In terms of boundary adjustments, all existing consent and farming structures are located over soft substratum >50 m offshore of Mean Low Water Mark (MLWM), therefore no boundary adjustments are suggested. No change to the consented number of backbones is suggested.

1 Introduction

Gathering information to inform the assessment of effects on the coastal environment is implicit in New Zealand's legislation for sustainable resource management. A key mechanism in this process is to undertake aquaculture ecological assessments, which are designed to consistently and transparently assess the magnitude of impacts of marine farms on local biological communities and habitats, to identify appropriate resource consent conditions, and guide management.

Resource consents for marine farms in the Marlborough Sounds require an assessment of effects, including ecological effects. The following report is an ecological effects assessment of the proposed re consenting of marine farm 8280, Wairangi Bay, Croisilles Harbour. It was commissioned by Aquaculture Direct Limited on behalf of the consent holder.

1.1 Ecological Assessment Scope

With detailed methodology outlined in Section 2, and survey limitations in Sections 2.3 and 8, the purpose of this report is to:

- Identify and describe the ecological values of the area associated to the marine farm re consent (Section 3);
- Describe the potential effects on local ecology arising from the re consent (Section 4);
- Discuss and present an overall conclusion of the level of potential effects of the re consent on local ecology (Section 5);
- Recommend measures as appropriate to avoid, remedy or mitigate potential effects (including any proposed conditions/management plan required) (Section 6).

1.2 Description of Proposed Reconsent

The location of the marine farm re consent and existing surface structures within the survey area, along with point locations where benthic observations (via drop camera) were made is shown in Figure 1.1. Existing surface structures consist of one block of backbones covering a total area of approximately 1.01 ha. The backbones are on average approximately 105 m in length, and appear to have been used to support production oyster (*Crassostrea gigas*) crops.



Figure 1.1. Marine farm 8280 survey area, Wairangi Bay, Croisilles Harbour, including existing surface structure and consent boundaries, surveyed area, and locations of benthic sampling stations (drop camera locations) assessed in the present study. Detailed field data is presented in Appendix A.

2 Assessment Methodology

The ecological assessment of the site has been undertaken using a combined desktop, database and field survey approach outlined below.

2.1 Desktop Analysis

Existing biological databases and all published information on habitat types and biological values within the study area were researched. This phase also included preparation of site maps and plans to direct the field survey, including plotting of consent corners. Both the consent corners and extent of potential differences in habitat type within the site were delineated on geographic information systems (GIS) using topographical maps and high resolution aerial photography (LINZ rectified ~0.3 m per pixel resolution flown in 2017/18 - <https://data.linz.govt.nz/layer/98968-marlborough-03m-rural-aerial-photos-2017-2018/>) prior to site visit. Information was derived from known datasets on landforms, marine farms (MDC's Smart Maps database), climate, and topography of the site. Preliminary biological communities and habitat types were identified and described through a combination of past reports (MDC database), the use of aerial photographs, and to a lesser extent the New Zealand Land Cover Database version five (LCDBv5).

The threat classification of important marine species was derived from the appropriate threat classification list for each taxa (Baker et al. 2019; Freeman et al. 2013; Robertson et al., 2016; International Union for Conservation of Nature, IUNC) and their regional status was derived from Marlborough District Council reports (Davidson et al. 2011) and the Conservation Management Strategy for the Nelson/Marlborough Conservancy (Department of Conservation, 1996-2006).

2.1.1 Marine Mammals

A list of mammal species in the area, as noted in Davidson et al. (2011), was collated (Appendix B).

2.1.2 Shore & Sea Birds

A list of bird species in the area, as noted in eBird (Grid BW58 June 2019-Feb 2020) and Davidson et al. (2011), was collated (Appendix C). The species list obtained from the eBird atlas data served as a baseline of species previously recorded in the wider area and therefore potentially present at or near the site. Recent unpublished survey data on NZ King shag distributions and population trends in the Marlborough Sounds, as presented in Bell et al. (2019) and by Jonathan Large (MFA) at the AQNZ 2019 Conference, was also considered.

2.1.3 Biogenic Habitats and Macroinvertebrates

Local biogenic habitat and epibenthic macroinvertebrate lists (Appendix D) obtained from various sources (Morton and Miller 1973; Davidson et al. 2010, 2011, 2018; and Anderson et al. 2019) were examined to identify any rare or uncommon biogenic habitat in which to focus field surveys. This list also included macroalgal and seagrass habitat.

2.1.4 Fish

A list of fish species in the area, as noted in Davidson et al. (2011), was collated (Appendix E).

2.2 Field Survey

Habitat both within and immediately adjacent to the re-consent area was assessed by field survey. The survey targeted an approximately 5.50 ha subtidal area based on the consent (including existing surface structures) (Figure 1.1). The survey was undertaken by boat (Vessel: Christina A, 12.1 m, MSA 129219) during calm (<5 knot winds) sea conditions on the 25th February 2020. On this day, the tide was low at 0547 (0.90 m) and high at 1140 (3.49 m), and during the survey relatively light currents appeared to be running in a northeast to southwest direction, with weather conditions fine. The corners of the existing marine farm surface structures were approximated by positioning the survey vessel immediately adjacent to the corner floats and the position plotted in real time via Garmin BlueChart™ G2. Low tide was determined at four locations inshore of the consent.

The survey vessel was positioned over the low water mark and the position plotted using the on-board GPS unit, while visual assessment of the transition between intertidal and subtidal species was used to determine low tide.

2.2.1 Benthic Habitat Classification

Broad ecological or habitat zones in the benthic survey area were identified, and with the aid of a Garmin GPSMAP 8410scx chart plotter unit (accuracy approx. ± 3 m) linked to two GT51MTHP through-hull high-definition (500 kW) transducers, which provide traditional CHIRP sonar data, right and left SideVu™ imaging as well as DownVu™ imaging, broadly delineated. Each habitat was subjectively classified into one of several different qualitative habitat type descriptors according to unique features identified and listed in Table 3.1 (refer to Appendix F for further details). A stratified inspection of habitats was then undertaken using a Deep Blue HD (wide-angle 1080P) underwater splash camera fixed to a stainless steel frame. The camera was lowered to the benthos and an oblique still photograph was collected where the frame landed to note key flora and fauna for each zone (outlined below). Drop camera stations were selected to obtain a representative range of habitats and depths within the consent, with additional photographs taken when any features of interest (e.g. mussel / oyster shell, reef structures, cobbles) were observed on the remote monitor on-board the survey vessel. Detailed field data, including precise locations and depths is presented in Appendix A and drop camera photographs in Appendix G.

Upon completion of field work the broad benthic habitat zones and drop camera positions were then imported into a georeferenced aerial photo of the area using Garmin HomePort (version 2.3.0) and ArcMap 10.5 GIS software. Using a combination of SideVu™ sonar imagery, drop camera photos and colour aerial photos, delineated habitat zones were adjusted accordingly, to more accurately reflect the likely tonal gradations in sonar images of respective habitats, and an indicative map of different benthic habitats was produced.

2.2.2 Marine Mammals

Field surveys for marine mammals were not conducted. Rather, we rely on the habitat type descriptions obtained from the field investigations (refer to Section 2.2.1) to identify areas of potential habitat for species likely to occur within the area, as well as published accounts of marine mammals present within nearby habitats. All incidental mammal observations were recorded while on site and observations of mammals within or adjacent to the site.

2.2.3 Sea Birds

Again, field surveys for sea birds were not conducted. Rather, we rely on the habitat type descriptions obtained from the field investigations (refer to Section 2.2.1) to identify areas of potential habitat for species likely to occur within the area, as well as published accounts of birds present within nearby habitats. All incidental bird observations were recorded while on site and observations of birds within or adjacent to the site.

2.2.4 Biogenic Habitat and Macroinvertebrates

The presence of biogenic habitat and epibenthic macroinvertebrates was evaluated at discrete points across the 27 drop camera stations located below the farm (including alongside droppers and warps) and adjacent areas inside and offshore of the consent (Figure 1.1, Appendix A). At each station, the cover of benthic mussel / oyster shell from drop camera photographs were also ranked (None = no mussel shell, Low = 1-30%, Moderate = 31-50%, Moderate to High = 51-75%, and High = 76-100% cover).

2.2.5 Fish

Beyond those documented via drop camera, field surveys for fish were not conducted. Rather, we rely on the vegetation community (albeit limited) and habitat type descriptions obtained from the field investigations (refer to Section 2.2.1) to identify areas of potential habitat for species likely to occur within the area, as well as published accounts of fish present within nearby habitats.

2.3 Limitations of Field Survey

Assessment of the biota and habitat types at the site was based on the proposed re-consent area and existing surface structures. We note that the latter may move due to environmental variables such as tidal current and wind. The location of surface structures may vary from day to day and over the duration of tidal cycles, hence these data should not be relied upon as a precise measurement of the position of surface structures, but rather an approximate position.

We also note that potential seasonal variability is not assessed through one site visit. The composition of the avifauna, fish and mammal communities utilising the area could not be established as the survey was only conducted once in the summer season.

2.4 Assessment of Effects Methodology

The location of the farm falls within the jurisdictional boundary of MDC and its operative Marlborough Sounds Resource Management Plan (MSRMP). The site lies within the boundary of the Coastal Marine Zone 2 (CMZ2), an area in which marine farming activity is a discretionary activity. All statutory planning documents relevant to the consenting and ecological assessment of the marine farming activity, and the New Zealand Coastal Policy Statement 2010 (NZCPS), were considered in the assessment. The assessment of ecological effects follows Ecological Impact Assessment guidelines (EclA) produced by the Environment Institute of Australia and New Zealand (EIANZ, 2015). The EclA approach follows the steps outlined below:

Step 1: Assessment of ecological values

Ecological values are assigned a level on a scale of Low, Moderate, High or Very High based on assessing the values of species, communities, and habitats identified against criteria set out in the EclA guidelines (see Table 2.1).

Table 2.1 Assignment of values to species, vegetation and habitats within the potentially affected marine area (adapted from EIANZ, 2015).

Value	Species Value requirements	Habitat Value requirements
Very High	Important for Nationally Threatened species	Meets most of the ecological significance criterion as set out in relevant statutory policies and plans (MSRMP) including indigenous biological diversity criteria in Policy 11 of the NZCPS
High	Important for Nationally At Risk – species and may provide less suitable habitat for Nationally Threatened species	Meets some of the ecological significance criterion as set out in relevant statutory policies and plans (MSRMP), including indigenous biological diversity criteria in Policy 11 of the NZCPS
Moderate	No Nationally Threatened or At Risk species, but habitat for locally uncommon or rare species	Habitat type does not meet ecological significance criteria as set out in the relevant statutory policies and plans (MSRMP), or the NZCPS but does provide locally important ecosystem services (e.g. food resource, biogeochemical cycling, and seascape connectivity)
Low	No Nationally Threatened, At Risk or locally uncommon or rare species	Nationally or locally common habitat and supporting no Threatened or At Risk species, and does not provide locally important ecosystem services

Step 2: Magnitude of effect assessments

Step 2 of the EclA guidelines requires an evaluation of the magnitude of effects on ecological values based on the extent of any area which is likely to be affected, intensity and duration of effect. The magnitude of the effect that the consent is expected to have on ecological values is evaluated

as being either No effect, Negligible, Low, Moderate, High or Very High, based on the proposed works (footprint size, intensity and duration; see Table 2.2).

Table 2.2 - Summary of the criteria for describing the magnitude of effect as outlined in EIANZ, 2015.

Magnitude of effect	Description
Very High	Total loss or major alteration of the existing baseline conditions; and/or Loss of high proportion of the known population or range
High	Major loss or alteration of existing baseline conditions; and/or Loss of high proportion of the known population or range
Moderate	Loss or alteration to existing baseline conditions; and/or Loss of a moderate proportion of the known population or range
Low	Minor shift away from existing baseline conditions; and/or Minor effect on the known population or range
Negligible	Very slight change from the existing baseline conditions; and/or Negligible effect on the known population or range

Step 3: Level of effects assessment in the absence of mitigation

Step 3 of the EclA guidelines requires the overall level of effect to be determined using a matrix that is based on the ecological values and the magnitude of effects on these values in the absence of any efforts to avoid, remedy or mitigate for potential effects. Level of effect categories include No Ecological Effect, Very Low, Low, Moderate, Moderate/High, High and Very High. Table 2.3 shows the EclA matrix outlining criteria to describe the overall level of ecological effects.

Table 2.3 - Summary of the criteria for describing the overall level of ecological effects as outlined in EIANZ, 2015.

Magnitude of effect	Ecological Value			
	Very High	High	Moderate	Low
Very High	Very high	Very high	High	Moderate
High	Very high	Very high	Moderate	Low
Moderate	Very high	High	Low	Very low
Low	Moderate	Low	Low	Very low
Negligible	Low	Very low	Very low	Very low
No Effect	No ecological effect	No ecological effect	No ecological effect	No ecological effect

Step 4: Establish if mitigation is required

The overall level of effect is used to determine if mitigation (e.g. boundary adjustments) is required. As discussed later in this report, the reconsent would have only low to negligible ecology effects (in terms of Step 3 of the EclA guidelines), even without taking into account mitigation measures.

3 Ecological Description

3.1 Site Description

The proposed marine farm re-consent is located offshore of the southeastern shoreline of Wairangi Bay (Figure 3.1), approximately 1800 m east-north-east of Matakoi Point, Squally Cove, Croisilles Harbour. Croisilles Harbour is the western-most harbour in the Marlborough Sounds and opens into Tasman Bay. Squally Cove is some 38.5 km by sea from the entrance to Port Nelson. The Cove (as measured from Red Clay Point on the northern side to the western headland of Symonds Bay on the southern side) has a coastline length of approximately 24 km and covers an area of sea of approximately 1109 ha. Wairangi Bay itself has a coastline length of approximately 5.5 km, is roughly 2.2 km long and up to 800 m wide, and covers an area of sea of approximately 160 ha. The landscape adjacent to the farm features coastal hillslopes which rise from a relatively narrow band of rocky cobbled intertidal to ridges approximately 100-200 m in height. Predominantly adjacent land-use cover is regenerating native vegetation and, to a lesser extent, commercial forestry (currently supporting maturing *Pinus radiata*).



Figure 3.1. Marine Farm 8280 with one block of backbones occupying a subtidal area offshore from the southeastern shoreline, Wairangi Bay, Croisilles Harbour, February 2020.

3.2 Ecological Context

Based on an initial desktop review of available information we have identified the following ecological habitats associated with the proposed re-consent (the study area).

3.3 Marine Environment (Based on Historical Information)

No information on the marine environment to be directly affected by the re-consent could be recovered from the literature. For this reason, relevant information was sought from a previous benthic survey of adjacent marine farm 8281 (Davidson 2015) located approximately 300 m southwest of the application site. Based on this previous account, the wider marine study area is delineated by two primary subtidal regions, the nearshore reef and deeper offshore zone where existing farm structures are situated.

According to Davidson (2015), the nearshore subtidal habitat was dominated by cobble and, to a lesser extent, bedrock substratum. Fauna residing in or utilising nearshore habitat were not comprehensively assessed in 2015.

The deeper offshore benthos under the marine farm 8281 (and more than likely the application site) was dominated by soft substratum (i.e. silt and clay - referred to herein as 'soft mud'). Mussel shell debris data collected from 28 drop camera locations indicated that mussel shell cover at that time ranged from low to high. At most photo stations, however, mussel shell levels when present were in the moderate to high range. Oyster shell was also observed below the consent. Species observed below the consent in 2015 included sea cucumber, solitary ascidian, cushion seastar, 11 arm sea star and filamentous red algae, but no invertebrate species were observed in high numbers.

No species, habitats or communities with known scientific, conservation or ecological importance were observed during the 2015 survey of adjacent farm 8281.

The wider Wairangi Bay and adjacent coastline also provides refuge for a variety of sea birds and marine mammals including nationally threatened species (see further discussion in Section 4 below).

3.4 Existing Consent and Surface Structure Boundaries

The inshore corner depths of the consent area ranged from 4.1-5.7 m (Appendix A). Offshore boundary depth of the consent area was c.a. 7.0 m. Existing surface structures consisted of one block of backbones covering approximately 1.01 ha (34%) of the 3.00 ha consent area. A proportion of one line was offshore and outside of the consent boundary (Figure 3.3). The distance between low tide and the consent boundary and surface structure boundary was measured at four positions along the adjacent shoreline. The distance from low tide positions to the inshore consent and surface structure boundary ranged from 30-69 m and 88-125 m, respectively.

3.5 Current Benthic Habitat

Based on an assessment of sonar and drop camera imagery, a total of four broad benthic habitat types were mapped (Table 3.1). An example, looking north across the consent, of how subtidal habitat margins were delineated is provided in Figure 3.2. A GIS-based habitat map of the benthic study area is provided in Figure 3.3.

3.5.1 Bedrock, Boulder and Cobble Field (Nearshore subtidal reef - inshore of consent)

Inshore of the consent, from Mean Low Water Mark (MLWM) to 15-20 m offshore, lies hard substratum, in this case a mix of bedrock, boulder and cobble field dominated habitat (e.g. refer Field Photo 'DC 23', Figure 1.1, Appendix G). This nearshore region of the surveyed area accounts for a relatively small proportion (2%) of the study area (Table 3.1, Figure 3.3). Shell (mussel and oyster) debris did not feature on any hard substratum present within the surveyed area.

Table 3.1 Summary of broad benthic habitat types within the subtidal surveyed area, Marine Farm 8280, Wairangi Bay, Croisilles Harbour, February 2020.

Dominant Subtidal Feature		Surveyed Area (ha)	% of Surveyed Area	% of Proposed Reconsent*
1.	Bedrock/boulder/cobble - <i>Protruding from intertidal zone into nearshore subtidal habitat inshore of the consent</i>	0.08 ha	1.4%	0.0%
2.	Cobble field - <i>Small pockets bordering nearshore subtidal reef inshore of the consent</i>	0.04 ha	0.8%	0.0%
3.	Firm muddy sand - <i>15-30 m band seaward of nearshore subtidal habitat inshore of the consent</i>	0.49 ha	8.9%	0.0%
4.	Soft mud - <i>Under consent and surface farming structures</i>	4.89 ha	89.0%	100%
Total		5.50 ha	100%	100%

*Refers to footprint of 'consent boundary' (as per Figure 3.3).

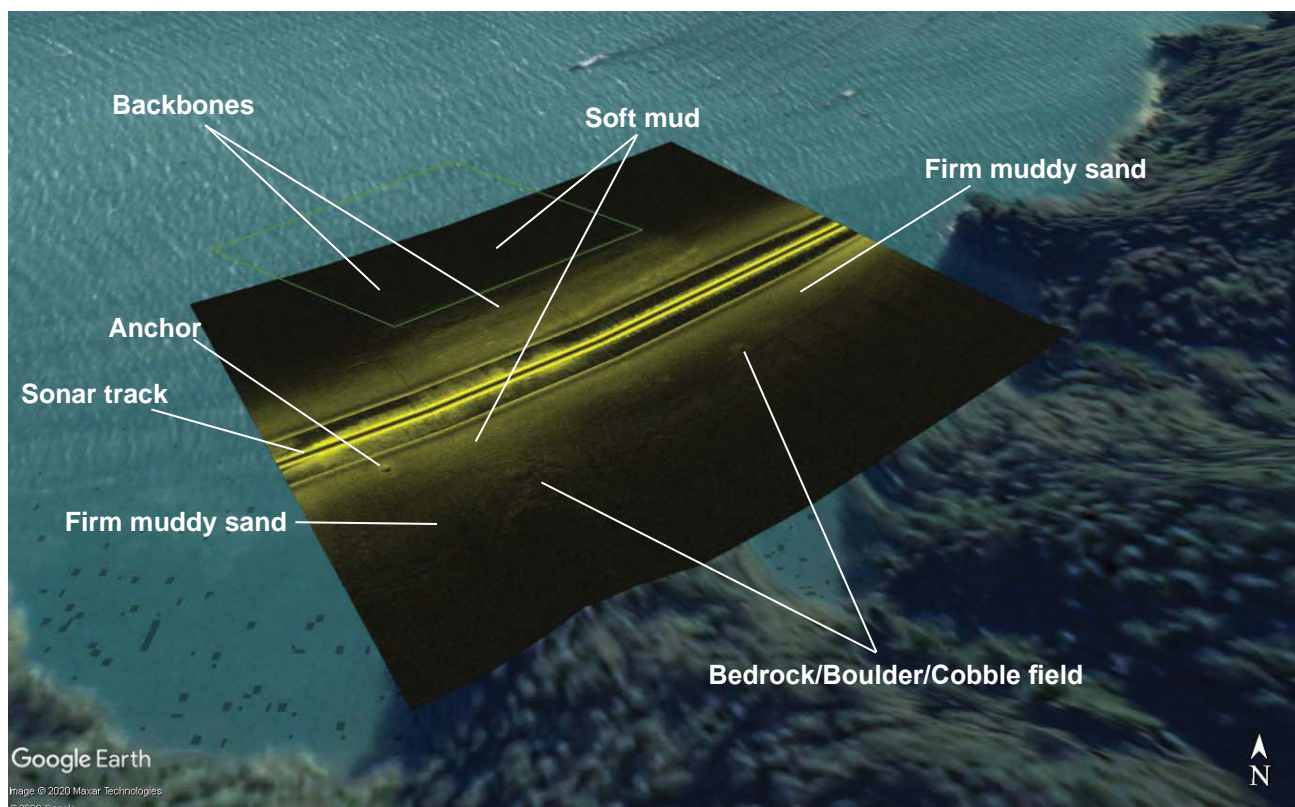


Figure 3.2. Example of the different habitats in the surveyed area and encountered via sonar during the field survey, Marine Farm 8280, Wairangi Bay, Croisilles Harbour, February 2020. Note representative drop camera photos and live HD video feed were used to corroborate habitat types captured in sonar runs. Consent boundary outlined in light green.

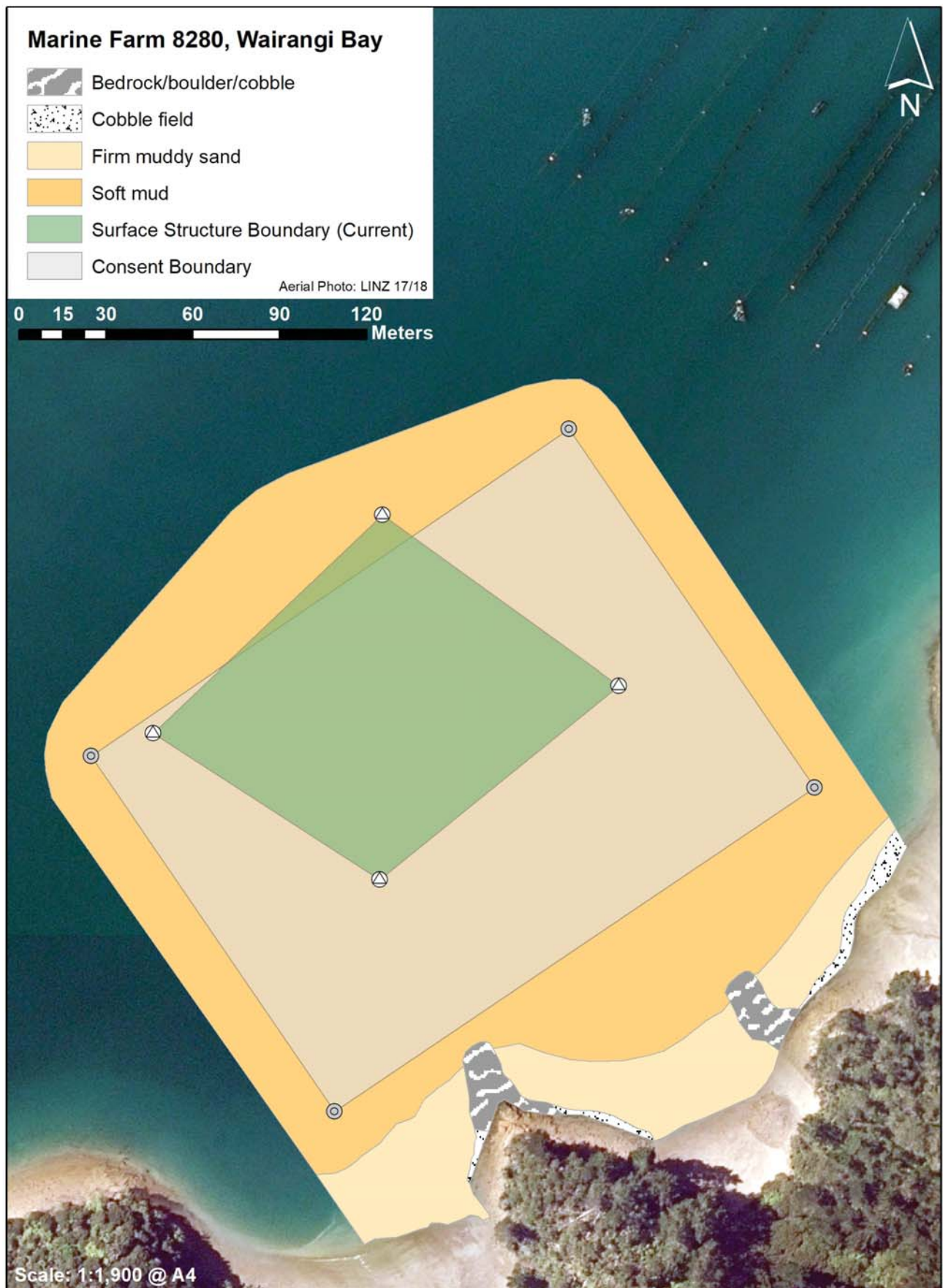


Figure 3.3. Broad scale map of dominant benthic habitat assessed in the present study. Habitat boundaries are indicative only. Representative drop camera photos plus in situ HD video feed were used to corroborate habitat types captured in sonar runs. All substratum below the existing surface farming structures is dominated by unvegetated soft mud.

3.5.2 Firm Muddy Sand/Soft Mud (Deeper offshore subtidal habitat - under and adjacent to existing farm)

Down shore of the nearshore subtidal reef habitat is the firm muddy sand and to a much greater extent soft mud (grainsize range mostly <63 µm) habitats (e.g. refer Field Photos 'DC 25 (firm muddy sand) and DC 3 (soft mud)', Figure 1.1, Appendix G). It is the latter that falls within the footprint of existing surface farming structures and the consent area. Here, shell debris was generally very low, with shell debris observed in 9 of the 17 (53%) drop camera photos, ranging in percentage cover from 0% (none) to 45% (moderate) (Appendix A), but when present was predominantly <20% (low). Although muddy, sediments in this part of the study area did not appear to be expressing symptoms of advanced eutrophication (i.e. oxygen depletion at the sediment surface) as can be the case under a scenario of excessive organic loading (Robertson 2018; Keeley et al. 2012).

3.6 Marine Mammals

Based on the habitat preference and recorded distributions of marine mammal species (refer to Appendix B for details), there are several species of mammal with the potential to inhabit the wider area of the proposed re-consent (Davidson et al. 2011) including:

- Bottlenose dolphin (*Tursiops truncatus*) - Nationally Endangered;
- Dusky dolphin (*Lagenorhynchus obscurus*) - Not Threatened;
- Hector's dolphin (*Cephalorhynchus hectori hectori*) - Nationally Vulnerable;
- Humpback whale (*Megaptera novaeangliae*) - Non-Resident Native (Migrant);
- Killer whale, orca (*Orcinus orca*) - Nationally Critical;
- Short-beaked common dolphin (*Delphinus delphis*) - Not Threatened; and,
- Southern right whale (*Eubalaena australis*) - At Risk - Recovering.

The ecological value of marine mammal populations in the coastal environment of the re-consent is very high given the likelihood for mammal species to utilise the wider area and which may include Nationally Endangered/At Risk species; however, these species are not restricted to these habitats within the proposed re-consent and likely utilise habitat in adjacent bays and other coastal habitat throughout the wider Marlborough Sounds.

No marine mammals were observed within the study area during the present survey.

3.7 Shore & Sea Birds

Recent shorebird and seabird sightings (refer to Appendix C for details) at Squally Cove and adjacent area included (eBird June 2019-Feb 2020, and Davidson et al. 2011):

- Fluttering shearwater (*Puffinus gavia*) – At Risk (Relict);
- White-fronted tern (*Sterna striata striata*) – At Risk (Declining);
- Southern black-backed gull (*Larus dominicanus dominicanus*) - Not Threatened;
- Variable oystercatcher (*Haematopus unicolor*) – At Risk (Recovering);
- Silver gull (*Larus novaehollandiae scopulinus*) – At Risk (Declining);
- White-faced heron (*Egretta novaehollandiae*) – Not Threatened;
- Spotted shag (*Stictocarbo punctatus*) – Not Threatened; and,
- Australasian Gannet (*Morus serrator*) – Not Threatened.

Again, the ecological value of shorebird and seabird populations in the coastal receiving environment of the re-consent is moderate given the recent sightings in the Squally Cove area and known

inhabitants of the open coast which include At Risk bird species; however, these species are not restricted to these habitats within the proposed re-consent and likely utilise available habitat within Squally Cove and adjacent bays and other coastal habitat throughout the Marlborough Sounds.

No seabirds were observed within the study area during the present survey.

3.8 Biogenic Habitat and Macroinvertebrates

3.8.1 Bedrock, Boulder and Cobble Field (Nearshore subtidal reef - inshore of consent)

Epibenthic macrofauna, in this case, juvenile barnacle (*Chamaesipho columna*) were present on boulder/cobble reef (refer Field Photo 'DC 45', Figure 1.1, Appendix G). Macroalgal species attached to hard substratum throughout the inshore reef included the turfing algae *Lithothamnion* sp., and *Ralfsia verrucosa* and the brown algae *Hormosira banksii*.

3.8.2 Firm Muddy Sand/Soft Mud (Deeper offshore subtidal habitat - under and immediately adjacent to re-consent)

The overall abundance of biogenic habitat is expected to be very low given the generally depauperate nature of soft mud habitat beneath shellfish farms throughout the Marlborough Sounds (Davidson et al. 2011). Indeed only a few patches of foliose red macroalgae (often covered in parts by crustose algae) were observed at the relevant drop camera sampling stations below or adjacent to the existing farm. Epibenthic macrofaunal species present at relatively low densities in this part of the surveyed area was limited to cushion star (*Patiriella regularis*). A benthic microalgal film and small holes, the latter presumably made by infaunal organisms, were also visible at the sediment surface throughout most of this offshore habitat.

No scallop, horse mussel, hydroid, bryozoan, lamp shell species or tube worm mounds were recorded below the consent or within the surveyed area.

Overall, while regionally important biogenic habitat (foliose red macroalgae) were recorded within the study area, they were present at a very low density below the consent. Their overall ecological value is considered to be low given the low diversity, species richness and abundance, and large absence of Nationally Threatened, At Risk or locally uncommon or rare species.

3.9 Fish

Based on the habitat preference and recorded distributions of fish species (refer to Appendix E for details), there are several species of fish with the potential to inhabit the wider area of the proposed re-consent (Davidson et al. 2011) including:

- Blue Cod (*Parapercis colias*) - Threatened - Least Concern (Decreasing);
- Elephant Fish (*Callorhinchus milii*) - Threatened - Least Concern (Stable);
- Rough Skate (*Zearaja natuta*) - Threatened - Least Concern (Stable);
- Snapper (*Pagrus auratus*) - Threatened - Least Concern (Decreasing); and,
- Spotty (*Notolabrus celidotus*) - Threatened - Least Concern.

The ecological value of fish populations in the coastal environment of the re-consent is moderate given the likelihood for species to utilise the wider area, which may include Nationally Threatened species; however, these species are not restricted to these habitats within the proposed re-consent and likely utilise available habitat within Squally Cove and adjacent bays and other coastal habitat throughout the Marlborough Sounds.

No species of bony fish was recorded below the consent or within the surveyed area.

4 Assessment of Effects on Ecological Values

In the absence of efforts to avoid, remedy or mitigate adverse ecological effects, the potential effects on coastal ecological values come primarily from localised effects at approximately the farm scale.

Local effects, in the case of aquaculture of pacific oysters (*Crassostrea gigas*) (i.e. the current activity at the site), can be expressed within both water column (e.g. phytoplankton depletion and changes in planktonic community composition, dissolved nutrient and particulate release, and effects from biofouling communities) and benthic (e.g. localised organic enrichment, smothering of organisms by biodeposits, biofouling drop-off and debris altering the composition of the benthos, and shading of benthos by structures thereby affecting localised productivity) environments. However, the likelihood for adverse affects associated with continued shellfish farming in both shallow nearshore habitat and soft mud habitat (directly below and immediately adjacent to the reconsent) is low. This is based on the distance of the former habitat from the reconsent coupled with the site's long history of shellfish farming (and therefore lessened likelihood for adverse alteration to the latter habitat) and relatively well flushed nature driven by shallow depths, tidal flow and periodic wind and wave action (Davidson 2015). Further, the impact of an oyster farm is likely to represent a lower than traditional production mussel farming as oysters are kept in cages, thereby minimising shell deposition. In addition, Matarau Point is recorded as being 'one of four cusped forelands in the Marlborough Sounds' (1/03, Map 71, MSRMP), with a level of significance of 2 ascribed reflecting a site of national significance with regard to 'Coastal and Marine (Intertidal and Subtidal)' ecological attributes (Appendix B, MSRMP), but, being situated some 4.0 km from the site, is highly unlikely to be impacted by the proposed reconsent.

The likelihood (or risk) and magnitude of these effects occurring and the potential level of effects on coastal environments relevant to the reconsent are discussed as follows.

4.1 Coastal Ecology Values Assessment

Step 1 of the EclA guidelines requires ecological values to be assessed and ranked. As defined by Table 4.1 below, coastal ecology values associated with the reconsent range from 'low' for firm muddy sand/soft mud habitat, and macrofauna and biogenic communities inhabiting surveyed subtidal habitat, to 'very high' for sea birds and mammals that may interact with the site.

Table 4.1 Assignment of values within the relevant coastal environment to habitats and species (adapted from EIANZ, 2015).

Habitat/Species	Value	Comments
Bedrock, Boulder and Cobble Field (nearshore subtidal reef - inshore of existing farm) Habitat	High	Hard substratum inshore of the proposed reconsent (and surface farm structures) is CMZ2 (MSRMP), and may support Nationally Threatened, At Risk or locally uncommon or rare species; however, these species are not restricted to the proposed site and likely occupy similar habitat along the wider inshore reef system.

Habitat/Species	Value	Comments
Firm Muddy Sand and Soft Mud (deeper offshore subtidal habitat - under and immediately adjacent to existing farm) Habitat	Low	The area of the proposed consent also falls within CMZ2 (MSRMP) mapped overlays, does not feature as a site of regional or national significance (Map 71, Appendix B, MSRMP), and does not appear to support high abundance of Nationally Threatened, At Risk or locally uncommon or rare species. We note this habitat type is considered suitable for consideration for marine farming activities in the Marlborough Sounds.
Biogenic Habitat & Macroinvertebrates	Low	Observed epibenthic macroinvertebrate communities and biogenic habitat inhabiting the proposed site have low diversity, species richness and abundance, but may include species known to be locally uncommon.
Fish	Moderate	Known inhabitants of Squally Cove and the wider Marlborough Sounds include Nationally Threatened and regionally significant fish species; however, these species are not restricted to these habitats within the proposed consent and likely utilise habitat in nearby reef, adjacent bays and other subtidal area throughout the Marlborough Sounds.
Marine Mammals	Very High	Known inhabitants of the wider Marlborough Sounds include Nationally Endangered/At Risk mammal species; however, these species are not restricted to these habitats within the proposed consent and likely utilise available habitat within Squally Cove and adjacent bays and other coastal area throughout the Marlborough Sounds.
Sea Birds	Very High	Known inhabitants of Squally Cove and the wider Marlborough Sounds include Nationally Endangered/At Risk bird species; however, these species are not restricted to these habitats within the proposed consent and likely utilise available habitat within Squally Cove and adjacent bays and other coastal area throughout the Marlborough Sounds.

4.2 Magnitude of Effects Assessment

Having identified the ecological value of the habitat and fauna, Step 2 of the EclA guidelines requires an evaluation of the magnitude of effects on ecological values based on consent size, intensity and duration (Table 4.2).

Table 4.2 Magnitude of effects on habitat and fauna potentially impacted (adapted from EIANZ, 2015).

Habitat/Species	Magnitude	Reasons
Bedrock, Boulder and Cobble Field (nearshore subtidal reef - inshore of existing farm) Habitat	Negligible	No direct impacts, but perhaps some indirect ones related to potential discharges and noise / activity disturbance of fauna. However, as evidenced in the present study, the likelihood for the deposition of farm-derived biodeposits and shell debris in nearshore subtidal (or indeed intertidal) habitats is low given the distance of this habitat from the proposed re-consent coupled with moderate-high flushing potential due to the site's shallow nature and periodic exposure to strong winds and wave action.
Firm Muddy Sand and Soft Mud (deeper offshore subtidal habitat - under and immediately adjacent to existing farm) Habitat	Low	Given the low value of this habitat with regard to in-habitant epibenthic macrofauna, and long-term history of marine farming at the site, any impacts associated to the re-consent on this soft mud-dominated habitat are expected to be within the very low impact range known for shellfish farms in the Marlborough Sounds. It is highly unlikely that biogeochemical conditions within the benthic environment (e.g. biotic community structure, surface sediment grain size distribution and oxygenation/redox conditions) will be further altered by the proposed activity.
Biogenic Habitat & Macroinvertebrates	Negligible	Given the relatively depauperate macrofaunal/biogenic community present at the proposed site, any impacts on them are expected to be negligible.
Fish	Negligible	Because shellfish farms can enhance wild fish abundances by creating a habitat for fish to aggregate (providing food resources and refuge), effects on fish would potentially arise due to fish populations becoming displaced from other habitats or more vulnerable to recreational fishing pressure. However, in general, any effects of the re-consent on wild fish populations are likely to be very minor, or indeed ecologically neutral.

Habitat/Species	Magnitude	Reasons
Marine Mammals	Negligible	Effects on mammals may arise through direct (e.g. vessel strike, increased underwater sound production and possibly the risk of entanglement) and indirect (i.e. degradation of feeding habitat values or diminished food resources) impacts. While the former has the greatest potential consequences (i.e. injury or death of a marine mammal), any such effects are expected to be either short-term, or avoidable through species utilising available feeding habitat throughout the wider Squally Cove and adjacent coastal region. Therefore, the magnitude of effect on marine mammals would be negligible.
Sea Birds	Negligible	Effects on birds would potentially arise due to degradation of feeding habitat values, diminished food resources, or through direct entanglement. However, farming structure may in fact provide alternative roost sites closer to foraging areas as well as promote aggregation of prey fish, and mobile bird species could avoid the latter effects by utilising available feeding habitat throughout the wider Squally Cove and adjacent coastal region. Therefore, the magnitude of effect on birds would be negligible, or indeed ecologically neutral.

4.3 Summary of Effects Assessment

An estimate of habitat change resulting from the proposed reconsent can be undertaken by importing the proposed design into a GIS environment. This allows a semi-quantitative estimate to be made of the benthic habitat likely to be impacted. The areal footprint of the reconsent area and existing surface farming structures overlaid on a map of benthic habitat types is shown above in Figure 3.3. Reconsent of the proposed site would not likely alter the firm muddy sand- or soft mud-dominated habitats. It is unlikely that those remaining habitats adjacent to the reconsent would be appreciably altered by the proposal. Given that the size of the survey area was selected based on the scale of proposed reconsent, these calculations suggest that approximately 61% of the soft mud habitat in the study area will be situated beneath the proposed reconsent.

Although the proposed reconsent would be situated above the soft mud habitat in the surveyed area, the relatively depauperate biological nature of the habitat, in this case dominated by highly mobile fauna commonly found beneath established shellfish farms in the Marlborough Sounds, means that it is unlikely that significant changes to ecology will occur. Indirectly, ecology in more distant habitats from the proposed reconsent (e.g. nearshore subtidal habitats inshore and, to a much lesser extent under, existing farming structures) are also unlikely to be affected by the reconsent given their distance from the farming structures, relatively large extent, shallow depth and moderate-high flushing potential driven by tidal flow and periodic wind and wave action.

Table 4.3 summarises ecological value (Step 1), magnitude of effects (Step 2), and level of effects (Step 3) for each of the coastal ecological values identified for the associated coastal environment of the reconsent.

Table 4.3 Ecological values, magnitude of effects and level of effects for the coastal environment of the application site.

Habitat/Species	Ecological Value	Magnitude of Effect	Level of Effect
Bedrock, Boulder and Cobble Field (nearshore subtidal reef - inshore of existing farm) Habitat	High	Negligible	Very Low
Firm Muddy Sand and Soft Mud (deeper offshore subtidal habitat - under and immediately adjacent to existing farm) Habitat	Low	Low	Very Low
Biogenic Habitat & Macroinvertebrates	Low	Negligible	Very Low
Fish	Moderate	Negligible	Very Low
Marine Mammals	Very High	Negligible	Low
Sea Birds	Very High	Negligible	Low

5 Discussion & Conclusions

Broad scale habitat classification and fine scale inspection (via remote sensing / drop camera) of coastal marine areas as described in this study provides a detail of ecologically meaningful units (habitat type and associated fauna), that can be used as a baseline to detect changes in spatial extent over time, or as a result of a proposed activity. We note that, because the site of the proposed consent where existing surface farming structures are situated is confined to the offshore soft muddy, subtidal area, the current assessment mainly focuses on classifying only habitat and inhabitant fauna physically associated with this zone of the consent.

In terms of the overall physical environment, the study area, including the consent, exhibits properties characteristic of the upper reaches of a deep, subtidal dominated estuary (Robertson et al. 2016), with soft mud featuring as the dominant substratum bordered to the east by a smaller area of nearshore reef habitat. Mud (i.e. silt and clay), which is the most common subtidal habitat in the sheltered Marlborough Sounds (McKnight and Grange, 1991) and has been traditionally targeted for marine farming activities, typically harbours low value biological communities made up of fewer taxa more tolerant of disturbed/muddy conditions (Pearson and Rosenberg 1978; Robertson et al. 2015). For this reason, mud substratum is considered suitable for consideration for marine farming activities in the Marlborough Sounds. Biologically, the results of the survey of this subtidal habitat confirm this theory, with very few epibenthic macrofauna present within the soft mud habitat, based on representative drop camera photos taken below and adjacent to the consent. Indeed, with the exception of localised coverage of foliose red macroalgae, no species, including sea birds, fish and marine mammals, defined by DoC or MDC as having ecological significance were observed during this consent survey (DoC 1996-2006; Davidson et al. 2010, 2011, 2018).

Shellfish farming is expected to enhance rates of sedimentation of organic-rich, fine-grained particles (biodeposits of faeces and pseudofaeces), and the deposition and accumulation of live shellfish, shell litter onto the seabed (Keeley et al. 2009; Stenton-Dozey and Broekhuizen 2019). In this respect, the survey results showed benthic shell debris levels and apparent oxygenation of surface sediments, the latter a screening-level indicator of organic enrichment, to be within the very low impact range known for shellfish farms in the Marlborough Sounds. While it is likely that continued shellfish farming at this site will result in the deposition of more shell and fine-grained particles under surface structures, it is highly unlikely that biogeochemical conditions within the benthic environment (e.g. biotic community structure, surface sediment grainsize distribution and oxygenation/redox conditions) will be further altered by the activity.

In terms of potential water column effects, it is important to consider whether shellfish farming at the site may impact productivity in adjacent marine area by way of phytoplankton depletion (i.e. extraction of phytoplankton and organic particulates by the farmed shellfish). The effects of phytoplankton depletion through shellfish consumption are generally only detectable at approximately the farm scale, and are of short duration (Morrissey et al. 2006). The significance of associated effects depends on a variety of factors, including the carrying capacity of the environment, prevailing water currents, weather patterns, and catchment-derived nutrient inputs, with effects more pronounced if farms are located in physically constrained shallow areas with slow currents, compared to deep sites with strong flow and good flushing (Zeldis et al. 2008, 2013; Plew 2011; Broekhuizen et al. 2015). In their overview of ecological effects of shellfish farming, MPI (2013) stated that “*unlike the extensive research on phytoplankton depletion by mussels, there is little data on the effects of oysters on the intertidal water column environment. International research suggests that the potential for adverse water quality-related effects as a result of intertidal oyster farming is low. This conclusion is not surprising given the significantly lower stocking densities than mussel farms and that intertidal farm sites are substantially or completely flushed with every tidal cycle*”. The application site is located within a shallow, well-flushed area of Wairangi Bay, where circulation (driven by tides and wind) is high and residence time is low. On this basis, and given that no data has been presented to show the ecological carrying capacity of the Sounds has been reached, it is probable the site is unlikely to cause significant phytoplankton depletion outside the boundaries of the consent.

Overall, the proposal is considered relatively minor in terms of ecological impacts based on the farming activity, long history of farming at the site, and the existing values, and therefore the life-supporting capacity of associated coastal ecosystems will be maintained through the operation of the consent.

6 Recommendations

6.1 Recommendations for avoiding or minimising potential adverse effects

Given the limited loss of coastal diversity as detailed above, as well as the already established farming infrastructure at the site, mitigation measures are recommended only during the operation phase of the proposed activity as follows:

- Minimise discharges (fine sediment and/or organic matter) to water in the coastal environment, although discharge effects of harvesting oysters are seen as transitory, and in most cases quickly become indistinguishable from background sedimentation.

6.2 Recommendations for addressing adverse residual effects that cannot be avoided or minimised

Monitoring of the associated coastal environment is not proposed given that the re-consent is expected to have minor effects on associated ecological values.

6.3 Recommendations for boundary adjustments

All existing consent and farming structures are located over soft substratum >50 m offshore of Mean Low Water Mark (MLWM) (refer Figure 3.3), therefore no boundary adjustments are suggested. No change to the consented number of backbones is suggested.

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8 Limitations

As with all one-off field ecological assessments, seasonal or temporal variation in the presence of mobile fauna means that the presence or absence of such fauna cannot be ascertained with great accuracy. The condition of habitat becomes the surrogate for the presence or absence of fauna rather than observed condition on the day of the survey. This assessment has been carried out in line with the project brief received by Robertson Environmental Limited on the 21st of February 2020. This is assumed in this assessment to be consent being sought by this application.

Robertson Environmental's professional opinions are based on its professional judgement, experience, and training. These opinions are also based upon data derived from the field survey and analysis described in this document, with the support of relevant national guidelines (EIANZ, 2015). It is possible that additional testing and analyses might produce different results and/or different opinions. Should additional information become available, this report should be updated accordingly. Robertson Environmental Limited has relied upon information provided by the Client to inform parts of this document, some of which has not been fully verified by Robertson Environmental Limited. This document may be transmitted, reproduced or disseminated only in its entirety.

Appendix A:

Detailed Field Data

Summary information for Marine Farm 8280 including low tide, consent corner and surface structure locations, February 2020.

Station Type	Station Code ¹	Depth (m) ²	Location	
			NZTM E	NZTM N
Consent Corner	CC 1	4.1	1662812	5456451
Consent Corner	CC 2	5.7	1662646	5456339
Consent Corner	CC 3	7.0	1662562	5456462
Consent Corner	CC 4	7.0	1662727	5456575
Surface structure corner	SC A	6.7	1662744	5456486
Surface structure corner	SC B	6.6	1662662	5456419
Surface structure corner	SC C	7.1	1662583	5456470
Surface structure corner	SC D	7.2	1662663	5456545
Low tide	LT 1	NA	1662573	5456322
Low tide	LT 2	NA	1662703	5456342
Low tide	LT 3	NA	1662811	5456379
Low tide	LT 4	NA	1662851	5456482

¹ As presented in Figure 1.1.

² Depth adjusted to datum (-3.4 m).

Summary of drop camera locations, substratum type, mussel shell debris and species present, Marine Farm 8280, February 2020.									
Drop Camera Stations	Depth (m)	NZTM E	NZTM N	Location	Substratum	Dominant substratum	Shell Debris	% shell debris	Species Present
DC 18	0.8	1662811	5456373	Inshore of consent, no surface structure	Silt, fine sand, cobble	Cobble field	None	0	
DC 19	1.2	1662806	5456376	Inshore of consent, no surface structure	Silt, fine sand, soft mud, shell hash, occasional cobble	Firm muddy sand	None	0	Foliose red macroalgae, cushion star (<i>Patiriella regularis</i>)
DC 20	2.2	1662804	5456388	Inshore of consent, no surface structure	Silt, fine sand, soft mud	Firm muddy sand	None	0	Foliose red macroalgae
DC 21	5.5	1662783	5456413	Inshore of consent, no surface structure	Silt, soft mud	Soft mud	None	0	
DC 23	0.4	1662706	5456337	Inshore of consent, no surface structure	Silt, fine sand, gravel, pebbles, cobble, boulder, bedrock reef	Bedrock/ boulder/ cobble field	None	0	Brown macroalgae (<i>Hormosira banksii</i>), juvenile barnacle (<i>Chamaesipho columna</i>), <i>Lithothamnion</i> sp., <i>Ralfsia verrucosa</i>
DC 24	2.1	1662705	5456345	Inshore of consent, no surface structure	Silt, soft mud, fine sand, shell hash, gravel, pebbles, cobble, boulder	Boulder/ cobble field	None	0	Brown macroalgae (<i>Hormosira banksii</i>), juvenile barnacle (<i>Chamaesipho columna</i>), <i>Lithothamnion</i> sp., <i>Ralfsia verrucosa</i>
DC 25	4.1	1662707	5456354	Inshore of consent, no surface structure	Silt, soft mud, fine sand, occasional cobble	Firm muddy sand	None	0	
DC 26	6.1	1662700	5456369	Inshore of consent, no surface structure	Silt, soft mud	Soft mud	None	0	
DC 22	6.3	1662747	5456435	Inside consent, no surface structure	Silt, soft mud	Soft mud	None	0	Unidentified macroalgae (likely ephemeral)
DC 27	6.3	1662689	5456387	Inside consent, no surface structure	Silt, soft mud	Soft mud	None	0	
DC 14	7.3	1662575	5456452	Inside consent, under anchor warp	Silt, soft mud	Soft mud	None	0	
DC 15	6.7	1662645	5456409	Inside consent, under anchor warp	Silt, soft mud	Soft mud	None	0	Unidentified macroalgae
DC 16	6.8	1662749	5456529	Inside consent, under anchor warp	Silt, soft mud	Soft mud	None	0	

¹ As presented in Figure 1.1.

² Depth adjusted to datum (-3.4 m).

Summary of drop camera locations, substratum type, mussel shell debris and species present, Marine Farm 8280, February 2020.

Drop Camera Stations	Depth (m)	NZTM E	NZTM N	Location	Substratum	Dominant substratum	Shell Debris	% shell debris	Species Present
DC 1	6.5	1662735	5456484	Inside consent, within surface structure area	Silt, soft mud, mussel debris	Soft mud	Low	20	
DC 2	6.3	1662695	5456446	Inside consent, within surface structure area	Silt, soft mud, mussel debris	Soft mud	Low	12	
DC 3	6.6	1662663	5456424	Inside consent, within surface structure area	Silt, soft mud	Soft mud	None	0	
DC 4	6.8	1662632	5456448	Inside consent, within surface structure area	Silt, soft mud, mussel debris	Soft mud	Low	3	Benthic microalgal film (microphytobenthos, MPB)
DC 5	6.6	1662669	5456490	Inside consent, within surface structure area	Silt, soft mud, mussel debris	Soft mud	Moderate	45	
DC 6	7.0	1662688	5456520	Inside consent, within surface structure area	Silt, soft mud, mussel debris	Soft mud	Low	2	Benthic microalgal film (microphytobenthos, MPB)
DC 7	7.0	1662668	5456542	Inside consent, within surface structure area	Silt, soft mud, mussel debris	Soft mud	Low	6	Benthic microalgal film (microphytobenthos, MPB)
DC 8	7.4	1662641	5456510	Inside consent, within surface structure area	Silt, soft mud, scallop debris, mussel debris	Soft mud	Low	15	
DC 9	7.1	1662612	5456469	Inside consent, within surface structure area	Silt, soft mud	Soft mud	None	0	Benthic microalgal film (microphytobenthos, MPB)
DC 13	7.2	1662583	5456467	Inside consent, within surface structure area	Silt, soft mud	Soft mud	None	0	Unidentified macroalgae
DC 10	7.3	1662584	5456496	Offshore of consent, no surface structure	Silt, soft mud, mussel debris	Soft mud	Low	2	Benthic microalgal film (microphytobenthos, MPB)
DC 11	7.3	1662625	5456545	Offshore of consent, no surface structure	Silt, soft mud, mussel debris	Soft mud	Low	3	Benthic microalgal film (microphytobenthos, MPB)

¹ As presented in Figure 1.1.

² Depth adjusted to datum (-3.4 m).

Summary of drop camera locations, substratum type, mussel shell debris and species present, Marine Farm 8280, February 2020.									
Drop Camera Stations	Depth (m)	NZTM E	NZTM N	Location	Substratum	Dominant substratum	Shell Debris	% shell debris	Species Present
DC 12	7.2	1662666	5456549	Offshore of consent, within surface structure area	Silt, soft mud	Soft mud	None	0	Unidentified macroalgae
DC 17	7.2	1662687	5456563	Outside consent, under anchor warp	Silt, soft mud	Soft mud	None	0	Unidentified macroalgae (likely ephemeral)

¹ As presented in Figure 1.1.

² Depth adjusted to datum (-3.4 m).

Appendix B:

Potential Marine Mammal Species

Summary the threat classification, habitat preferences and distribution of mammal species known to occur within the Marlborough Sounds area.

Species	Common name	Threat classification (DOC) (2019) ¹	Threat classification (IUCN) ²	Date last assessed (IUCN)	Significant Species Marlborough (MDC) ³	Distribution ³
<i>Tursiops truncatus</i>	Bottlenose Dolphin	Threatened - Nationally endangered	Threatened - Least Concern	2018	Significant Species - Conservation grounds	New Zealand is at the southern most point of their range. Limits to the range of this species appear to be temperature related. Around 450 individuals live in the North Island area, ranging from Doubtless Bay in Northland to Tauranga. There are currently 31 individual dolphins visiting the Bay of Islands area (from 2017-2019 data). Around 63 live in Doubtful Sound, Fiordland (as at 1998). Another group range from the Marlborough Sounds to Westport. The only known population estimate for the Marlborough Sounds is 211 semi-resident animals.
<i>Lagenorhynchus obscurus</i>	Dusky Dolphin	Not Threatened	Threatened - Least Concern	2018	Significant Species	They are widely distributed around the South island and southern North Island but are rarely seen north of Hawke's Bay. They have been observed throughout much of the Marlborough Sounds, including Admiralty Bay, Queen Charlotte Sound and Tory Channel, Pelorus Sound and Croisilles Harbour. Admiralty Bay is now recognised as an important feeding area for some over- wintering dolphins that are found off Kaikoura during the summer. Feeding in Admiralty Bay occurs during daylight hours, with primary targets being small schooling fishes e.g. pilchards. The Admiralty Bay winter population represents a significant portion of the New Zealand dusky dolphin population. This population has been the focus of continued scientific interest regarding the relationship between aquaculture activities and dolphins.
<i>Cephalorhynchus hectori hectori</i>	Hector's Dolphin	Threatened - Nationally Vulnerable	Threatened - Endangered (Decreasing)	2008	Significant Species - Conservation grounds	Two sub-species of Hector's dolphins exist: Maui's dolphin is only found off the west coast of the north island; Hector's dolphin is found around the South island of new Zealand except Fiordland. In Marlborough the Hector's Dolphin is known to inhabit an area in the central Queen Charlotte Sound and a second area in Cloudy and Clifford Bays.

1. Baker et al. (2019).

2. Listed as 'Threatened' by the International Union for Conservation of Nature (IUNC). <https://www.iucnredlist.org/species>.

3. Davidson et al. (2011).

Species	Common name	Threat classification (DOC) (2019) ¹	Threat classification (IUCN) ²	Date last assessed (IUCN)	Significant Species Marlborough (MDC) ³	Distribution ³
<i>Megaptera novaeangliae</i>	Humpback Whale	Non-Resident Native - Migrant	Threatened - Least Concern (Increasing)	2018	Significant Species - Scientific and conservation grounds	In Marlborough humpback whales migrate northward from late May to early August, travelling up the east coast of the South island before dividing into two groups: one moving through Cook Strait and up the west coast of the north island; the other continuing up the east coast of the north island. South bound humpbacks mostly pass along the west coasts of both islands, between mid September and early December.
<i>Orcinus orca</i>	Killer Whale, Orca	Threatened - Nationally Critical	Threatened - Data Deficient	2017	Significant Species - Conservation grounds	They are the most cosmopolitan of all marine mammals, being found in all waters from tropics to polar regions. Within new Zealand there appear to be three main populations: (1) north island, (2) South island and (3) a population that appears to move between the both islands. Killer whales have been recorded from throughout much of Marlborough and may be encountered at any time of the year.
<i>Delphinus delphis</i>	Short-beaked Common Dolphin	Not Threatened	Threatened - Least Concern	2008	Significant Species	The New Zealand distribution is not well documented, however common dolphins are known from as far south as Fiordland, through to Kaikoura, the eastern coast of the north island and the Hauraki Gulf. Common dolphin are also present off the west coast of the North Island, from Northland through to the South Taranaki Bight and Cook Strait. In Marlborough common dolphin are known from Queen Charlotte Sound and Cook Strait; French Pass and Admiralty Bay area and also Cloudy and Clifford Bays.

1. Baker et al. (2019).

2. Listed as 'Threatened' by the International Union for Conservation of Nature (IUNC). <https://www.iucnredlist.org/species>.

3. Davidson et al. (2011).

Species	Common name	Threat classification (DOC) (2019) ¹	Threat classification (IUCN) ²	Date last assessed (IUCN)	Significant Species Marlborough (MDC) ³	Distribution ³
<i>Eubalaena australis</i>	Southern Right Whale	At Risk - Recovering	Threatened - Least Concern	2017	Significant Species - Conservation grounds	They have a circumpolar distribution between 20 and 55 degrees south. Southern right whales are occasionally seen in the Marlborough region during winter and spring. Sightings are primarily in Cloudy and Clifford Bay, Tory Channel and Queen Charlotte Sound, however sightings have occurred in other areas and seasons. Historically, New Zealand was considered to have two of the seven recognised southern right whale breeding grounds in the South Pacific to Indian Ocean Basin: (1) mainland New Zealand; and (2) Auckland Islands.
<i>Arctocephalus forsteri</i>	New Zealand Fur Seal	Not Threatened	Threatened - Least Concern (Increasing)	2014	Significant Species - Scientific and conservation grounds	They are widely distributed around mainland New Zealand as well as offshore islands and sub-Antarctic islands and can be found as far north as Three Kings Islands. They are widely distributed in the Marlborough Sounds and east coast region. In Marlborough breeding colonies exist at Stephens Island and Trio Islands. There are numerous haul outs throughout the Marlborough Sounds region. In at least some parts of the region (e.g. Admiralty Bay, French Pass, Current Basin), the haulout sites can vary through-out the year. Fur seals are regularly seen near salmon farms. Fur seals frequently feed on pelagic schooling fishes such as hoki, jack mackerel, and barracouta, as well as arrow squid. They also occasionally feed on penguins and shearwaters. Adult females tend to forage at night, in depths ranging from 15 m to 163 m.

1. Baker et al. (2019).

2. Listed as 'Threatened' by the International Union for Conservation of Nature (IUCN). <https://www.iucnredlist.org/species>.

3. Davidson et al. (2011).

Appendix C:

Potential Shore & Sea Bird Species

Species	Common name	Threat classification (DOC) (2016) ¹	Significant Species Marlborough (MDC) ²	Location	Date	Distribution ^{2,3}	Habitat ²
<i>Haematopus unicolor</i>	Variable Oystercatcher	At Risk (Recovering)	N/A	To Penzance Bay, Marlborough, NZ (-41.058, 173.819)	16-Feb-20		
<i>Larus dominicanus dominicanus</i>	Kelp Gull (Southern black-backed gull)	Not Threatened	N/A	Archers Track Path, Back To Boat in Penzance Bay, Tennyson Inlet, NZ (-41.082, 173.778)	16-Feb-20		
<i>Morus serrator</i>	Australasian Gannet	Not Threatened	Significant Species - Relatively few breeding areas	-41.0544, 173.8140	1-Aug-19	Australasian gannets nest in dense breeding colonies on the New Zealand mainland and coastal rocks and islands. The largest mainland gannetry is at Cape Kidnappers, other mainland breeding sites include Muriwai, Farewell Spit Pelorus Sound, Waimaru Bay, Waimaru, nuggets in Otago Peninsula and on Solander island, Foveaux Strait. Anatholia Bay on the western shores of Arapawa island.	Australasian gannets mostly feed on waters over the continental shelf. They prefer flat ground for nesting, rather than cliff ledges. Breeding colonies are mostly situated at sites that are completely or largely surrounded by the sea, i.e. on islands or headlands.

1. Robertson et al. (2016). 2. Davidson et al. (2011). 3. <http://nzbirdsonline.org.nz/species>. 4. Species not observed directly at surveyed site but considered regionally significant (Davidson et al. (2011)).

Species	Common name	Threat classification (DOC) (2016) ¹	Significant Species Marlborough (MDC) ²	Location	Date	Distribution[2] (2011), [3]	Habitat[2]
<i>Stictocarbo punctatus punctatus</i>	Spotted Shag	Not Threatened	Significant Species - Often encountered, being widespread and common	To Penzance Bay, Marlborough, NZ (-41.058, 173.819)	16-Feb-20	Spotted shags occur mainly around the South Island in coastal waters out to 16 km. They are more localised on the west coast of the South Island, around Stewart Island, and parts of the North Island, including the Hauraki Gulf, West Auckland, Hawke's Bay and Wellington Harbour. The strongholds for spotted shags are the Marlborough Sounds, Banks Peninsula and Otago coast. In Marlborough colonies range from the Croisilles Harbour in the west throughout the Sounds to Port underwood in the east.	Breeding colonies restricted to eroded rocky outcrops on the coast, entering inlets and estuaries to feed and roost.
<i>Puffinus gavia</i>	Fluttering Shearwater	At Risk (Relict)	Significant Species - Abundance and contribution to the fertility of the island ecosystems where they breed.	-41.0544, 173.8140	1-Aug-19	Fluttering shearwaters breed on many offshore islands throughout northern New Zealand, with large colonies on Three Kings, Moturoa, Motuharakeke (Cavalli), Bream, north-west Chickens, Mercury and Alderman Islands. In the Marlborough Sounds they are found on most rodent-free islands with the largest colonies on Trios and long island. In restoration projects, chicks have successfully been translocated to Maud Island (Marlborough Sounds) and Mana Island (Wellington).	Feeding range is restricted to coastal waters and the continental shelf. Found on most Rodent-free islands and nest in short burrows, under scrub or in forest.

1. Robertson et al. (2016). 2. Davidson et al. (2011). 3. <http://nzbirdsonline.org.nz/species>. 4. Species not observed directly at surveyed site but considered regionally significant (Davidson et al. (2011)).

Species	Common name	Threat classification (DOC) (2016) ¹	Significant Species Marlborough (MDC) ²	Location	Date	Distribution[2] (2011), [3]	Habitat[2]
<i>Sterna striata striata</i>	White-fronted Tern	At Risk (Declining)	Significant Species	-41.0527,173.7764	1-Aug-19	Common all around New Zealand coasts. Breeding occurs mainly on the coast of New Zealand and its outlying islands, Stewart, Chatham, and Auckland Islands, and off northeast Tasmania at Flinders and Cape Barren Islands.	Occasionally forage up larger Canterbury rivers, but are seldom found far from the coast. Breeding usually occurs in large dense colonies on shingle river beds, sand dunes, stacks and cliffs.
<i>Larus novaehollandiae scopulinus</i>	Silver Gull (Red-Billed Gull)	At Risk (Declining)	Significant Species - Due to a recent decline in numbers	-41.0527,173.7764	1-Aug-19	This subspecies is endemic to New Zealand and is commonly seen in all coastal areas including the sub-Antarctic islands and the Chatham islands. It is only occasionally seen inland. There are two main breeding colonies in the Marlborough Sounds, one on Stephens island and the other on Bird island, Forsyth Bay.	On mainland New Zealand, breeding occurs in dense colonies, mainly restricted to the eastern coasts of the North and South Islands on stacks, cliffs, river mouths and sandy and rocky shores. Often seen scavenging in towns. Upwellings at places like McManaway Reef are popular with birds as the tidal rips and turbulent current bring food to the surface.
<i>Phalacrocorax varius</i>	Pied Cormorant	Threatened - Least Concern	N/A	-41.0527,173.7764	1-Aug-19		
<i>Phalacrocorax sulcirostris</i>	Little Black Cormorant	Threatened - Least Concern	N/A	Tennyson Inlet to Duncan Bay	25-Jun-19		

1. Robertson et al. (2016). 2. Davidson et al. (2011). 3. <http://nzbirdsonline.org.nz/species>. 4. Species not observed directly at surveyed site but considered regionally significant (Davidson et al. (2011)).

Species	Common name	Threat classification (DOC) (2016) ¹	Significant Species Marlborough (MDC) ²	Location	Date	Distribution[2] (2011), [3]	Habitat[2]
<i>Larus novaehollandiae scopulinus</i>	Silver Gull (Red-Billed Gull)	At Risk (Declining)	Significant Species - Due to a recent decline in numbers	NZ-Marlborough-Marlborough Sounds-Pelorus Sound	30-Sep-19	This subspecies is endemic to New Zealand and is commonly seen in all coastal areas including the sub-Antarctic islands and the Chatham islands. It is only occasionally seen inland. There are two main breeding colonies in the Marlborough Sounds, one on Stephens island and the other on Bird island, Forsyth Bay.	On mainland New Zealand, breeding occurs in dense colonies, mainly restricted to the eastern coasts of the North and South Islands on stacks, cliffs, river mouths and sandy and rocky shores. Often seen scavenging in towns. Upwellings at places like Mc-Manaway Reef are popular with birds as the tidal rips and turbulent current bring food to the surface.
<i>Egretta novaehollandiae</i>	White-faced Heron	Threatened - Least Concern	N/A	Archers Track To Deep Bay, Tennyson Inlet, Marlborough, NZ (-41.086, 173.768)	16-Feb-20		

1. Robertson et al. (2016). 2. Davidson et al. (2011). 3. <http://nzbirdsonline.org.nz/species>. 4. Species not observed directly at surveyed site but considered regionally significant (Davidson et al. (2011)).

Appendix D:

Potential Biogenic Habitat & Macroinvertebrates

Species	Common name	Threat classification (DOC) (2016) ¹	Significant Species Marlborough (MDC) ²	Distribution ^{2,3}	Habitat ²
<i>Haliotis iris</i>	Black Foot Paua	N/A	Significant Species - Iconic species in Marlborough as they highly regarded as a recreational and commercial catch.	Black-foot paua are endemic to New Zealand. In Marlborough they have been recorded throughout much of the Marlborough Sounds apart from inner Marlborough Sounds. They are most common from exposed outer Sounds locations and areas with macroalgal forest.	Lives in shallow coastal waters, usually in large groups on rocky reefs.
<i>Galeopsis porcellanicus</i>	Bryozoan Coral	N/A	Significant Species - In Marlborough as they provide biogenic habitat for a variety of species.	Endemic, throughout NZ from Three Kings Islands to Foveaux Strait and the Antipodes Islands.	Found on rock or shelly gravel in sublittoral fringe to 235 m. In Marlborough it is known from areas with relatively strong tidal currents.
<i>Notoplax latalamina</i>	Chiton	N/A	Significant Species - Endemic to the outer Marlborough Sounds being recorded nowhere else.	Endemic to the outer Marlborough Sounds being recorded nowhere else. The type locality of the species is 200 m depth off Stephen's island (Takaporewa). It has also been observed by divers from Queen Charlotte Sound to Sentinel Rock in the outer Marlborough Sounds. This species appears to be naturally rare, and is sparsely distributed in the outer north-west Marlborough Sounds and Cook Strait.	Found on rocky reefs between 6 to 200 m depth, associated with large sponges growing in areas of moderate to high current flow.
<i>Neothyris lenticularis</i>	Giant Lamp-shell	N/A	Significant Species - Scientific and conservation values.	This species and genus is endemic to New Zealand and sub Antarctic waters. They are known from 200 m depth at Stephens island and form large beds in Cook and Foveaux Straits. In Marlborough it is widespread in deep waters of Cook Strait, but has also been recorded from a variety of shallow locations in East Bay, Arapawa island and several locations in inner Queen Charlotte Sound.	Found on a variety of substrates from solid rock platforms and walls to coarse sandy rubble.
<i>Atrina zelandica</i>	Horse Mussel	N/A	Significant Species - Can form a biogenic habitat in high densities.	They are found in muddy to sandy soft-sediment habitats around the coast of New Zealand from extreme low water to 70 m depth. In the Marlborough Sounds they are often found in the soft sediments. Dense beds of greater than 10 per square metre have been recorded from particular areas such as Grove Arm, Wet inlet and Port Gore.	Inhabit soft sediments with most of the shell embedded in the sea floor and anchored to sediment by byssus threads. The exposed shells provide attachment for an array of algae and invertebrates such as sponges and sea squirts.

1. Freeman et al. (2013). 2. Nelson et al. (2019). 3. Davidson et al. (2011). 4. Page (2017).

Species	Common name	Threat classification (DOC) (2016) ¹	Significant Species Marlborough (MDC) ²	Distribution ^{2,3}	Habitat ²
<i>Jasus edwardsii</i>	Rock Lobster	N/A	Significant Species - Highly regarded as a recreational and commercial catch. Dominant or key-stone predator.	They are found from Three Kings, north, South, Stewart and Chatham islands, south to Auckland islands. In Marlborough they have been recorded throughout the Sounds where suitable rock habitat exists, except central and inner Marlborough Sounds. Port underwood where large numbers of juveniles can be observed in the shallows.	Most common from outer Sounds locations and areas swept by moderate to strong tidal currents in rocky reef and on occasion, soft sediment habitats.
<i>Pecten novaezelandiae</i>	Scallop	N/A	Significant Species - Iconic species in Marlborough as they highly regarded as a recreational and commercial catch.	They are found throughout the Marlborough Sounds except inner Marlborough Sounds (including inner Kenepuru Sound) and Port underwood. They are particularly abundant in Queen Charlotte Sound entrance, the many bays in Queen Charlotte Sound and some outer Sound locations.	Found on a variety of soft substrata from mud to fine gravels, however adults appear to prefer coarse sediments (e.g. shell gravel and grit). They are usually most abundant in areas with some tidal flow.
<i>Celleporaria agglutinans</i>	Separation point coral	Not Threatened	Significant Species - Form dense beds that provide habitat for a variety of other species.	In New Zealand it is commonly known as Separation Point coral, Tasman Bay coral or 'hard coral' and occurs from the Three Kings islands to Foveaux Strait at about 3 to 220 m depth. In Marlborough particularly large concentrations of colonies are known from Current Basin, Chetwode and Titi islands.	Grows on rocky and soft sediment substrata, but only tends to form large, conspicuous colonies on soft sediments in high current areas.
<i>Galeolaria hystrix</i>	Tubeworm	N/A	Significant Species - Tubeworm mounds represent a significant biogenic habitat in Marlborough as they are utilised by a variety of species enhancing local biodiversity and potentially providing habitat for a variety of juvenile fishes.	Found on the rocky shores throughout Marlborough, however mounds are restricted only known to occur in the sheltered waters of the Marlborough Sounds and Port underwood. Particularly dense growths of these mounds are restricted to locations such The Knobbies and Perano Shoal. There are three major reefs in the region. One is in Queen Charlotte Sound and two are in Port Underwood at the Knobbies and Whataroa Bay.	Most abundant on rocky sheltered shores devoid of macroalgae but swept by tidal currents. Mounds are absent from areas exposed to ocean storms.

1. Freeman et al. (2013). 2. Nelson et al. (2019). 3. Davidson et al. (2011). 4. Page (2017).

Species	Common name	Threat classification (DOC) (2016) ¹	Significant Species Marlborough (MDC) ²	Distribution ^{2,3}	Habitat ²
<i>Macrocystis pyrifera</i>	Giant Kelp	At Risk (Declining)	Significant species - In Marlborough because in areas where it is dominant it can alter abiotic and biotic conditions by dampening water motion, altering sedimentation, shading the sea floor, scrubbing nutrients from the water column, stabilising substrata, and they can provide physical habitat for organisms both above and below the benthic boundary.	The giant kelp is found throughout New Zealand's marine environment. The range and extent of beds in the Marlborough Sounds has declined, with beds now absent from the eastern coast of D'urville island. Beds in the Marlborough Sounds are largely confined to sheltered eastern outer sound locations. Giant kelp beds are also located north and south of Cape Campbell.	Generally attaches to rock substrata, occasionally horse mussels, from low water to at least 18 m depth. The lower depth limit is determined by light and habitat availability. Note this species may also be a useful indicator of global warming as its distributional limit has been moving southward.
<i>Adamsiella chaulioides</i>	Red Alga	Not Threatened	Significant species - In Marlborough because where it forms dense beds it appears to provide habitat for a variety of species including bivalves, holothurians and fishes.	Endemic to New Zealand. In Marlborough it often forms dense beds in particular areas of Port Underwood, East Bay, and inner Queen Charlotte Sound (Houhou Point, Hauatehoro Point, Wedge Point, Ngakutu Point).	Found growing on a variety of substrata from rock to sand and mud.
<i>Rhodomyenia</i> sp.	Red Algae	Data Deficient	Significant Species - In Marlborough because they provide an important food source for a variety of species, including urchins and some herbivorous fishes	New Zealand waters.	Occur on a variety of substrata including rock, tube worm colonies and horse mussel shells. They may also be intertidal but most beds are subtidal in harbours and inlets.
<i>Lithothamnion</i> sp.	Rhodoliths	Data Deficient	Significant Species - Play an important role in the global calcium carbonate budget.	In the Marlborough Sounds rhodoliths are known from a small number of distinct locations including East Bay in Marlborough Sounds, and Pongau Bay and Catherine Cove, D'urville island.	Many species that form rhodoliths may also be found encrusting reefs and other hard substrata. Rhodoliths may form around small particles of rock, shell or coral, or may develop from fragments of coralline algae eroded from reefs.

1. Freeman et al. (2013). 2. Nelson et al. (2019). 3. Davidson et al. (2011). 4. Page (2017).

Appendix E:

Potential Fish Species

Species	Common name	Threat classification (IUNC) ¹	Date last assessed (IUCN)	Significant Species Marlborough (MDC) ²	Distribution ²	Habitat ²
<i>Paraper-cis colias</i>	Blue Cod	Threatened - Least Concern (Decreasing)	2009	Significant Species - Iconic species, dominant or key-stone predator.	Blue cod are endemic to New Zealand and are found from the Three Kings islands in the north to the Snares islands in the south. They are a common reef fish in Marlborough, Kai-koura, Fiordland, Stewart island and the Chathams islands.	Found throughout Marlborough on rocky habitats and offshore biogenic soft bottom habitats. Small juveniles appear at about 5 cm length on sandy or shelly bottoms that provide some cover (e.g. dead whole shells or cobbles).
<i>Cal-lorhinchus milii</i>	Elephant Fish	Threatened - Least Concern (Stable)	2015	Significant Species - Accessibility of the spawning areas makes them of importance to scientists	This chimaera resides on continental shelves of cool temperate areas to depths to at least 656 feet (200 m). It has also been reported to migrate into estuaries and inshore bays during the spring months to mate. They occur throughout New Zealand coastal waters but are most common around the South island. Spawning grounds have been identified at several locations in the Marlborough Sounds. Observations suggest that highest densities of egg cases occur in Garne Bay, Marlborough Sounds, but other important areas include Saville Bay, Kumutoto Bay and Grove Arm.	Adults are most often found on soft bottom habitats, from the surf zone to 227 m depth. Adults migrate into inshore waters, including harbours and estuaries to breed.
<i>Zearaja natuta</i>	Rough Skate	Threatened - Least Concern (Stable)	2017	"Significant Species - breeds in the sheltered bays of the Marlborough Sounds and its	Endemic to the outer Marlborough Sounds being recorded nowhere else. The type locality of the species is 200 m depth off Stephen's island (Takaporewa). It has also been observed by divers from Queen Charlotte Sound to Sentinel Rock in the outer Marlborough Sounds. This species appears to be naturally rare, and is sparsely distributed in the outer north-west Marlborough Sounds and Cook Strait.	Found on rocky reefs between 6 to 200 m depth, associated with large sponges growing in areas of moderate to high current flow.
<i>Pagrus auratus</i>	Snapper	Threatened - Least Concern (Decreasing)	2009	Significant Species - Significant Species - Iconic species, dominant or keystone predator.	In New Zealand they are found mainly in warmer coastal waters from Three Kings islands south to Cook Strait on the east coast; and to Tasman Bay and Westport on the west. Occasional individuals have been recorded from Foveaux Strait and Chatham Islands. Snapper are present throughout Marlborough but are more common in the west.	Young fish school in shallow water and sheltered areas and move out to deeper water in winter.
<i>Noto-labrus celidotus</i>	Spotty	Threatened - Least Concern	2008	N/A	Endemic to the waters around New Zealand, including Stewart Island.	Found on reefs at depths from 22 to 145 m, though most common in shallower parts of that range.

1. International Union for Conservation of Nature (IUNC) - <https://www.iucnredlist.org/species>.

2. Davidson et al. (2011).

Appendix F:

Broad Scale Habitat Classifications

Coastal vegetation was classified using an interpretation of the Atkinson (1985) system, whereby dominant plant species were coded by using the two first letters of their Latin genus and species names e.g. marram grass, *Ammophila arenaria*, was coded as Amar. An indication of dominance is provided by the use of () to distinguish subdominant species e.g. Amar(Caed) indicates that marram grass was dominant over ice plant (*Carpobrotus edulis*). The use of () is not always based on percentage cover, but the subjective observation of which vegetation is the dominant or subdominant species within the patch. A measure of vegetation height can be derived from its structural class (e.g. rushland, scrub, forest).

Vegetation (mapped separately to the substrata they overlie):

Seagrass meadows: Seagrasses are the sole marine representatives of the Angiospermae.

They all belong to the order Helobiae, in two families: Potamogetonaceae and Hydrocharitaceae. Although they may occasionally be exposed to the air, they are predominantly submerged, and their flowers are usually pollinated underwater. A notable feature of all seagrass plants is the extensive underground root/rhizome system which anchors them to their substrata. Seagrasses are commonly found in shallow coastal marine locations, salt-marshes and estuaries and are mapped separately to the substrata they overlie.

Macroalgal bed: Algae are relatively simple plants that live in freshwater or saltwater environments. In the marine environment, they are often called seaweeds. Although they contain chlorophyll, they differ from many other plants by their lack of vascular tissues (roots, stems, and leaves). Many familiar algae fall into three major divisions: Chlorophyta (green algae), Rhodophyta (red algae), and Phaeophyta (brown algae). Macroalgae are algae observable without using a microscope. Macroalgal density, biomass and entrainment are classified and mapped separately to the substrata they overlie.

Substrata (physical and biogenic habitat):

Artificial structures: Introduced natural or man-made materials that modify the environment. Includes rip-rap, rock walls, wharf piles, bridge supports, walkways, boat ramps, sand replenishment, groynes, flood control banks, stop gates.

Cliff: A steep face of land which exceeds the area covered by any one class of plant growth-form. Cliffs are named from the dominant substrata type when unvegetated or the leading plant species when plant cover is $\geq 1\%$.

Rock field: Land in which the area of residual rock exceeds the area covered by any one class of plant growth-form. They are named from the leading plant species when plant cover is $\geq 1\%$.

Boulder field: Land in which the area of unconsolidated boulders (>200 mm diam.) exceeds the area covered by any one class of plant growth-form. Boulder fields are named from the leading plant species when plant cover is $\geq 1\%$.

Cobble field: Land in which the area of unconsolidated cobbles (20-200 mm diam.) exceeds the area covered by any one class of plant growth-form. Cobble fields are named from the leading plant species when plant cover is $\geq 1\%$.

Gravel field: Land in which the area of unconsolidated gravel (2-20 mm diameter) exceeds the area covered by any one class of plant growth-form. Gravel fields are named from the leading plant species when plant cover is $\geq 1\%$.

Mobile sand: Granular beach sand characterised by a rippled surface layer from strong tidal or wind-generated currents. Often forms bars and beaches.

Firm or soft sand: Sand flats may be mud-like in appearance but are granular when rubbed between the fingers and no conspicuous fines are evident when sediment is disturbed e.g. a mud content <1%. Classified as firm sand if an adult sinks <2 cm or soft sand if an adult sinks >2 cm.

Firm muddy sand: A sand/mud mixture dominated by sand with a moderate mud fraction (e.g. 1-10%), the mud fraction conspicuous only when sediment is mixed in water. The sediment appears brown, and may have a black anaerobic layer below. From a distance appears visually similar to firm sandy mud, firm or soft mud, and very soft mud. When walking you'll sink 0-2 cm. Granular when rubbed between the fingers.

Firm sandy mud: A sand/mud mixture dominated by sand with an elevated mud fraction (e.g. 10-25%), the mud fraction visually conspicuous when walking on it. The surface appears brown, and may have a black anaerobic layer below. From a distance appears visually similar to firm muddy sand, firm or soft mud, and very soft mud. When walking you'll sink 0-2 cm. Granular when rubbed between the fingers, but with a smoother consistency than firm muddy sand.

Firm or soft mud: A mixture of mud and sand where mud is a major component (e.g. >25% mud). Sediment rubbed between the fingers retains a granular component but is primarily smooth/silken. The surface appears grey or brown, and may have a black anaerobic layer below. From a distance appears visually similar to firm muddy sand, firm sandy mud, and very soft mud. Classified as firm mud if an adult sinks <5 cm (usually if sediments are dried out or another component e.g. gravel prevents sinking) or soft mud if an adult sinks >5 cm.

Very soft mud: A mixture of mud and sand where mud is the major component (e.g. >50% mud), the surface appears brown, and may have a black anaerobic layer below. When walking you'll sink >5 cm unless another component e.g. gravel prevents sinking. From a distance appears visually similar to firm muddy sand, firm sandy mud, and firm or soft mud. Sediment rubbed between the fingers may retain a slight granular component but is primarily smooth/silken.

Cockle bed/Mussel reef/Oyster reef: Area that is dominated by both live and dead cockle shells, or one or more mussel or oyster species respectively.

Tube worm (e.g. Sabellid) field: Area that is dominated by raised beds of sabellid polychaete tubes.

Shell bank: Area that is dominated by dead shells.

Appendix G:

Field Photographs

Marine Farm 8280 - Wairangi Bay, Croisilles Harbour

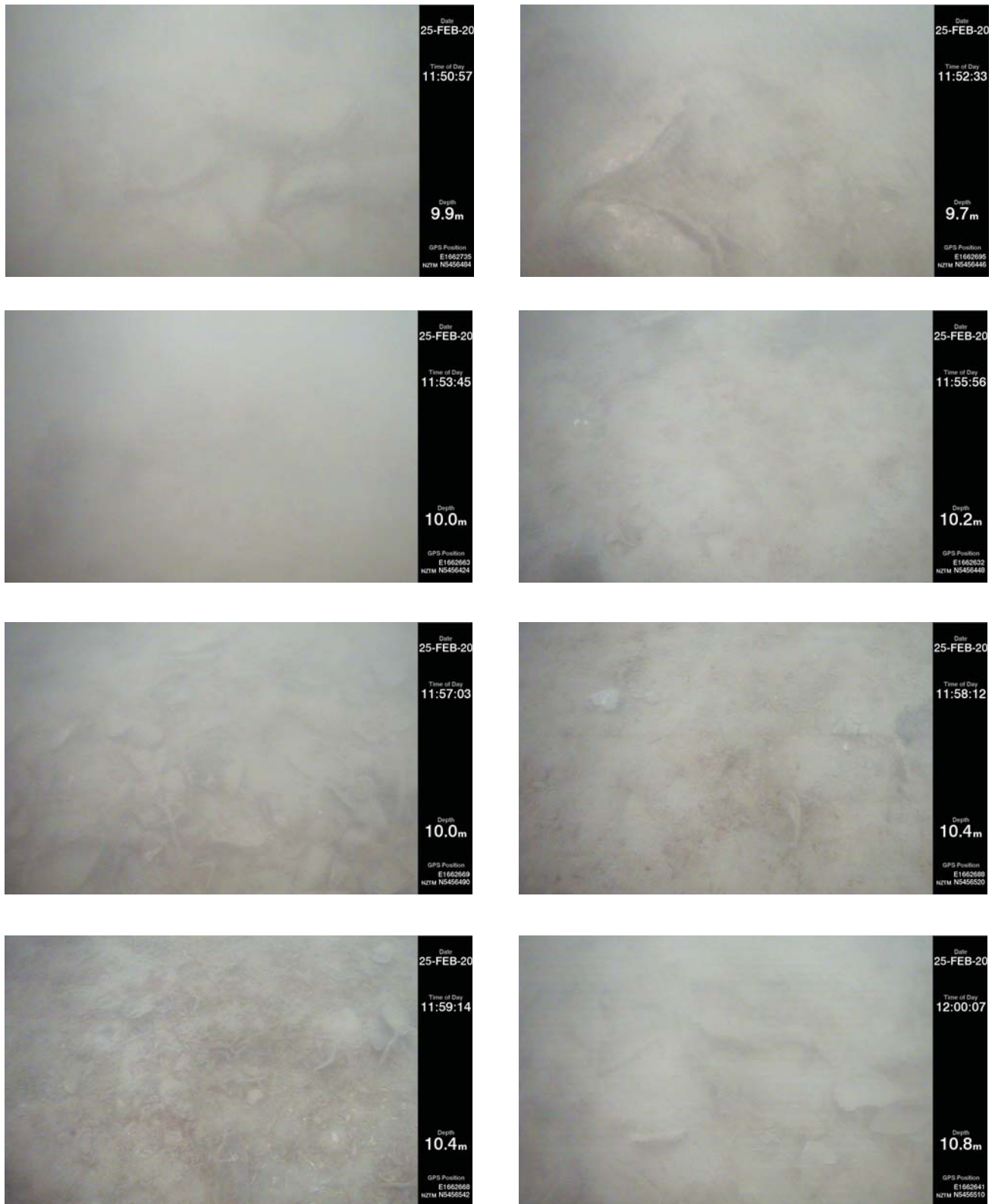


Photo 1-8 (Left to right, top to bottom): DC 1 - DC 8 (as listed in Appendix A). Note: the corresponding depths listed in Appendix A have been corrected (-3.4 m) to datum. Direct HD video output often provided a clearer image and was therefore used to confirm habitat and biota captured in drop camera photos whilst in the field.

Marine Farm 8280 - Wairangi Bay, Croisilles Harbour

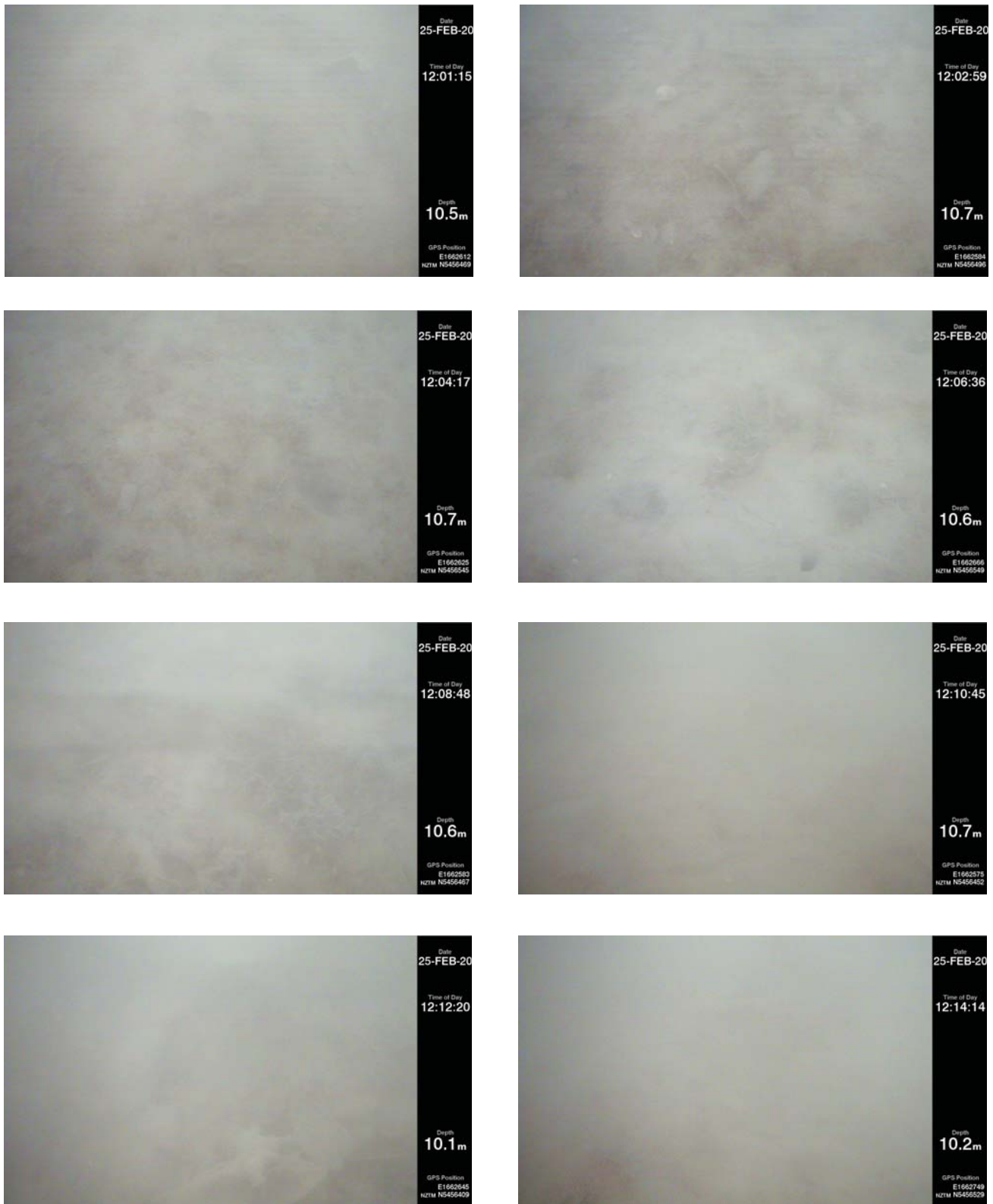


Photo 9-16 (Left to right, top to bottom): DC 9 - DC 16 (as listed in Appendix A). Note: the corresponding depths listed in Appendix A have been corrected (-3.4 m) to datum. Direct HD video output often provided a clearer image and was therefore used to confirm habitat and biota captured in drop camera photos whilst in the field.

Marine Farm 8280 - Wairangi Bay, Croisilles Harbour

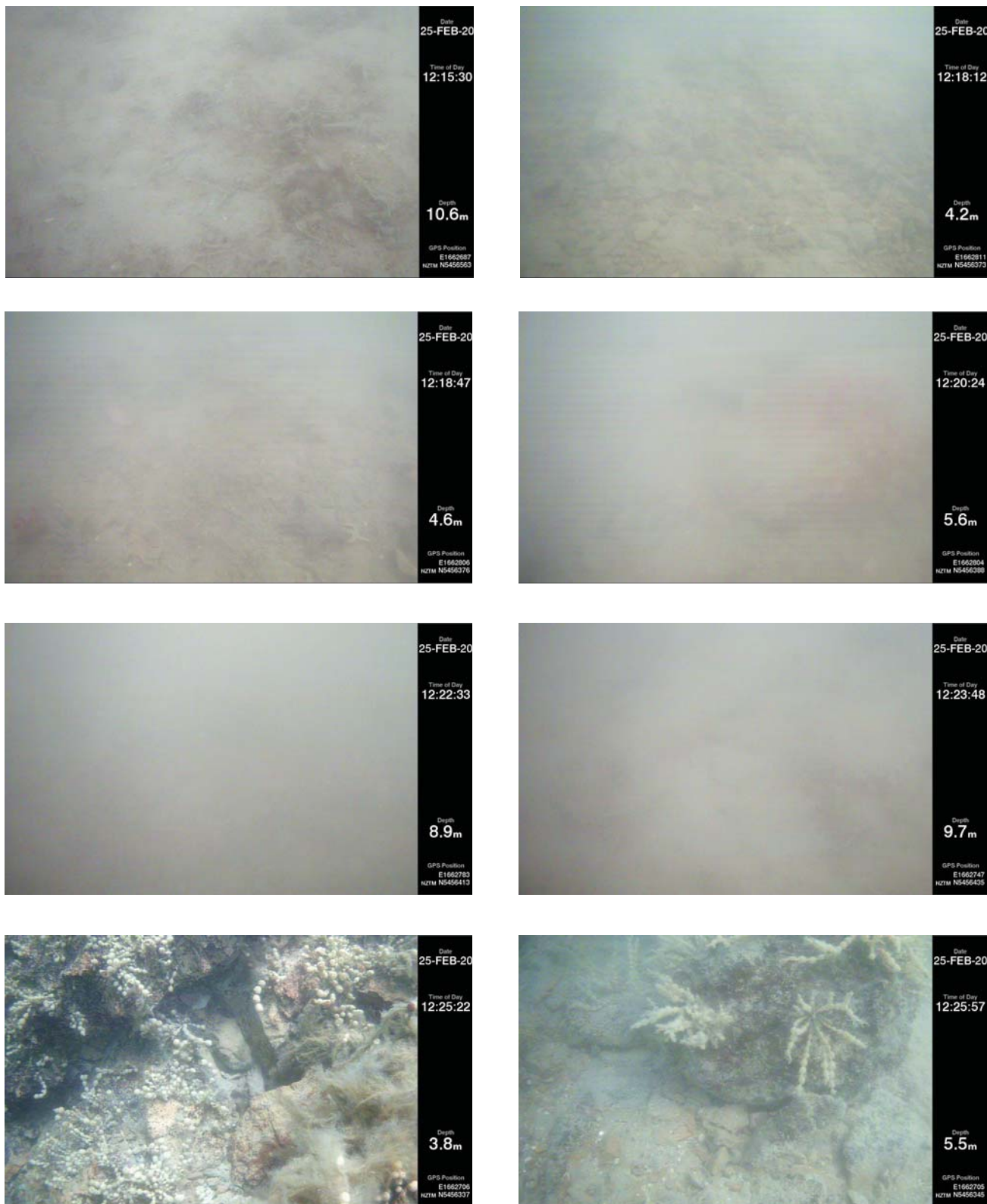


Photo 17 - 24 (Left to right, top to bottom): DC 17 - DC 24 (as listed in Appendix A). Note: the corresponding depths listed in Appendix A have been corrected (-3.4 m) to datum. Direct HD video output often provided a clearer image and was therefore used to confirm habitat and biota captured in drop camera photos whilst in the field.

Marine Farm 8280 - Wairangi Bay, Croisilles Harbour



Photo 25 - 27 (Left to right, top to bottom): DC 25 - DC 27 (as listed in Appendix A). Note: the corresponding depths listed in Appendix A have been corrected (-3.4 m) to datum. Direct HD video output often provided a clearer image and was therefore used to confirm habitat and biota captured in drop camera photos whilst in the field.

www.robertsonenvironmental.co.nz



To: Marlborough District Council
PO Box 443
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 an 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.