

Bea Gregory-5252

From: MDC
Sent: Friday, 6 October 2017 1:14 p.m.
To: RCInbox
Subject: Application for Resource Consent: REF171001528
Attachments: REF171001528.pdf

A application for a Resource Consent has been received. Application lodgement number is REF171001528.

Submission details are attached.



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GST No. 50-430-960



Reference Number:	REF171001528
Submitted On:	06/10/2017 13:13
Submitted By:	Aquaculture Direct Ltd

Important Information

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

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

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

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

Applicant Details

Select as many as are applicable

Is the applicant

Is the applicant • A company

Company name Yncyca Mussel Farm Limited

Is the applicant

Main applicant name John & Judy Sinclair

Main applicant mailing address 3 Kelson Lane, Ilam, Christchurch 8041

Main applicant email address judyandjohn.sinclair@gmail.com

Main contact number 033418270

Alternative contact number 033418270

Is there an agent working on behalf of the applicant? Yes

All communication regarding the application will be sent to the agent

Are you a business or an individual? Business

Company name Aquaculture Direct Limited

Contact person Bruce Cardwell

Mailing address PO Box 213, Blenheim 7240

Email address bruce@aquaculturedirect.co.nz

Main contact number 021451284

Alternative contact number 021451284

Agent reference Sinclair 8642

Application Details

Types of resource consent applied for	• Coastal Permit
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Property Details

The location to which the application relates is	Yncyca Bay, Pelorus Sound
Brief description of the activity	To renew an existing resource consent of 4.0016 Ha for marine farm 8642 in Yncyca Bay, Pelorus Sound including activities ancillary to the operation of the marine farm for a period of 20 years.

Assessment of Effects on the Environment (AEE)

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

Please upload Assessment of Effects on the Environment	• 8642 Sinclair AEE Renewal September 2017.pdf (1187384 bytes)
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Plans

Please upload plans (e.g. site plan, elevation plans, scheme plan etc) of the locality and activity points. Describe the location in a manner that will allow it to be readily identified, e.g. house number and street address, grid reference, the name of any relevant stream, river, or other water body to which the application may relate, proximity to any well known landmark, DP number, valuation number, property number

Site/location plan	• 8642 Layout Plan 13 lines.pdf (410935 bytes) • 8642 Locality Map.pdf (3605733 bytes) • 8642 Renewal Site Plan.pdf (764532 bytes) • 8642-8644 Sbdn Site Plan.pdf (747001 bytes)
Scheme plan	No files uploaded
Forest harvest plan	No files uploaded
Building plans	No files uploaded
Dam design drawings	No files uploaded

Certificate of Title

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

Please indicate which supplementary forms you are adding

Technical Reports

Do you wish to upload any technical reports to be included in the application by the relevant Resource Management Plan, Act or regulations?

Yes

Benthic report	• 8346 Yncyca Bay (Sinclair-Coull).pdf (5436072 bytes)
Cultural effects assessment	No files uploaded
Dam construction report	No files uploaded
DSI	No files uploaded
Ecology report	No files uploaded
Economic report(s)	No files uploaded
Engineering report	No files uploaded
Erosion and sediment management plan	No files uploaded

Geotechnical report	No files uploaded
Landscape report	No files uploaded
PSI	No files uploaded
RAP	No files uploaded
Wastewater report	No files uploaded
Any other report not covered in the list above	No files uploaded

Written Approvals

Please provide the names and addresses of the owner and occupier of the land (other than the applicant) Refer to AEE-Consultation

Please attach any written approval(s) that may have been obtained from affected parties/adjoining property owners and occupiers **No files uploaded**

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

Brief reason for not consulting with neighbours Refer to AEE consultation

Other Details

Are additional resource consents required in relation to this proposal? No

The applicable lodgement (base) fee is to be paid at the time of lodging this application. If payment is made into Council's bank account 02-0600-0202861-02, please record applicant name and either property number or consent type as a reference.

The final cost of processing the application will be based on actual time and costs in accordance with Council's charging policy. If actual costs exceed the lodgement fee, an invoice will be issued (if actual costs are less, a refund will be made). Council may stop processing an application until an overdue invoice is paid in full. Council charges interest on overdue invoices at 15% per annum from the date of issue to the date of payment. In the event of non-payment, legal and other costs of recovery will also be charged.

Do you require a GST receipt for a bank payment? Yes

Please make invoice out to Applicant

The application lodgement fee Will be paid by applicant

Notes Not answered

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

Authorised by (your full name) Bruce Raymond Cardwell

Privacy Information

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

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

**APPLICATION BY SOUNDS YNCYCA MUSSEL FARM LIMITED TO RENEW
EXISTING CONSENT FOR MARINE FARM SITE 8642
IN YNCYCA BAY, INNER PELORUS SOUND, MARLBOROUGH**

1.0 INTRODUCTION – THE APPLICANT

Yncyca Mussel Farms Limited has applied to renew the existing resource consent that include parts off (MFL454, U010679, MPE863, U160513), for marine farm site 8642 (total 4.0016 ha) for the purpose of farming Greenshell mussels, (*Perna canaliculus*) using conventional structures. (Refer attached layout diagrams illustrating the site.)

The site 8642 includes 8642 and part of marine farm site 8643. In addition, an inshore area of 0.714 Ha is surrendered and an additional area of 0.7130 Ha is sought on the seaward side of the consent. There is no change to the total area of the consent. *Refer to Proposed subdivision Plan.*

In May 2017, the marine farm was split into three marine farm sites as per below;

Marine Farm Site No:	8642
Name of Permit Holders:	Yncyca Mussel Farm Limited
Permit Number/s:	MFL454, U010679, MPE863, U160513
Location:	Yncyca Bay, Inner Pelorus Sound/Te Hoiere
Area (hectares):	3.7206

Marine Farm Site No:	8643
Name of Permit Holders:	Sounds Fun Mussel Co Limited & Yncyca Mussel Farm Limited
Permit Number/s:	MFL454, U010679, MPE863
Location:	Yncyca Bay, Inner Pelorus Sound/Te Hoiere
Area (hectares):	0.5600

Marine Farm Site No:	8644
Name of Permit Holders:	Sounds Fun Mussel Co Limited
Permit Number/s:	U010679, MPE863
Location:	Yncyca Bay, Inner Pelorus Sound/Te Hoiere
Area (hectares):	2.1200

MFL454 – parent farm granted in February 1991 expires 31st December 2024 (2.700 ha)
U101679 – extension granted in October 2002 expires 28th February 2019
MPE863 – granted in November 2006 expires 28th February 2019 (0.8900ha)
U160513 – extension granted in July 2016 expires 28th February 2019 (0.1306ha)

This Application is to renew both the parent (MFL454) and the extensions (MPE863) and U160513 consents as they relate to Farm 8642. In May 2017 the farm was split into three areas however the applicants Yncyca Mussels Farms Limited (8642) and Sounds Fun Mussel Company Limited (8644) have agreed to split the farm into two separate consent (not three) as described on the site plan. This renewal application should be read in conjunction with Sounds Fun Mussel Company Limited renewal (8644).

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 which marine farming activity is a discretionary activity in the current Marlborough Sounds Resource Management Plan.

Yncyca Mussels Farms Limited is owned by John and Judy Sinclair who purchased a property, house and mussel farm in Yncyca Bay in 1990. They use the house regularly and stay there for extended periods of time. They developed the farm as cash would allow over the next 10 years.

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

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

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

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

2.0 INTRODUCTION – THE APPLICATION

2.1 Size: The site is 4.0016 ha.

2.2 Structures: The site dimensions will be: inshore boundary 190 metres long, outer boundary 186 metres, northern boundary 251 metres long and southern boundary 213 metres long.

There will be a total of 13 longlines (refer attached layout diagram).

2.3 Species: It is proposed to farm and harvest Greenshell mussels, (*Perna canaliculus*) using conventional structures.

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

3.0 PERMITTED ACTIVITIES

Consent is also sought to allow the existing seabed anchoring devices to remain (and be replaced as required), to harvest marine farming product from the marine farm (including the discharging of coastal seawater and discharge of biodegradable and organic waste matter) and all other activities that are ancillary to the operation on site 8642.

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

4.0 TERMS OF CONSENT

MFL454 – parent farm granted in February 1991 expires 31st December 2024 (2.700ha)
U101679 – extension granted in October 2002 expires 28th February 2019 &
MPE863 – granted in November 2006 expires 28th February 2019 (0.8900ha)
U160513 – extension granted in July 2016 expires 28th February 2019 (0.1306ha).

This application is to renew the area identified as 8642 on attached plans and combine into one consent for marine farm site 8642.

The Applicant seeks a 20-year term expiring in 2037 for the consents.

5.0 THE SITE - LOCATION

Marine farm 8642 is located in Yncyca Bay on the eastern side of Popure Reach, inner Pelorus Sound. The Bay is approximately 25 km by sea from Havelock. Yncyca Bay has a coastline length of

approximately 6.5 km and covers a sea area of approximately 236.8 ha. The mouth of Yncyca Bay is roughly 2.5 km wide.

The farm sits alongside other farms on the eastern side of Yncyca Bay. The nearest marine farms to 8642 are the adjacent farms to the north 8345, 8344 and to the south marine farms 8347 & 8348.

The adjacent land to the south east of the farm is Sounds residential and Rural 1.

There are residential houses located on the land adjacent to the site. The nearest residences are approximately 150 metres from the site.

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

6.0 THE SITE - DIMENSIONS

The site dimensions have been described above as per the layout plans attached. The depth of the water at each of the site corners is 17m (NW), 18 (NE), 15m (SE), and 16m (SW).

The Application includes 13 long lines, each being approximately 110 metres long.

There are currently 13 lines installed and operating at the site that grow Greenshell mussels.

The site layout is attached to the Application.

The warp lengths are between 38 metres and 40 metres from each end of the backbone (see line layout diagram for individual longline lengths). The warp ratio is 2:1.

The farm is identified as being onsite as shown on the Marlborough District Council website (smart maps).

7.0 THE PRESENT ENVIRONMENT

7.1 The Marine Environment

In September 2017 Mr RJ Davidson, of Davidson Environmental Ltd, undertook a biological study of the ecology of the marine area of site 8642, 8643 and 8644 (Report 870, attached).

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

“Most of the consent area was located over silt and clay substratum (i.e. mud). This substratum is the most common subtidal habitat in the sheltered Marlborough Sounds (McKnight and Grange,

1991) and has been traditionally targeted for marine farming activities as it is considered the most suitable habitat for marine farming activities in the Marlborough Sounds.

The inshore edge of the western consent (8642) supported coarser fine substratum as well areas supporting rocky substratum. Unlike mud and mud and shell, rocky substratum is not traditionally considered suitable for marine farming activities as it is vulnerable to smothering by shell and fine sediment and would likely no longer function as a hard substratum habitat. Further, hard substratum is usually restricted to a narrow strip around the edges of the Marlborough Sounds.”

Boundary adjustments, recommendations and monitoring

“For most of the consent, no biological values were detected that would preclude the continuation of mussel farming. The substratum under most of the consent is mud and is the most common and widespread habitat type in sheltered shores of the Marlborough Sounds. The impacts associated with mussel farming on muddy habitats characterised by silt, clay and natural shell are usually low compared to farm impacts in shallow areas where habitats may be dominated by rocky or biogenic communities.”

Offshore of the Consent

“Photos collected near and offshore of the consent boundary were characterised by featureless silt and clay (Plate 8). Low numbers of parchment worms were also recorded from photos in this area.”

The application for the renewal of 8642 has identified benthic issues in the inshore area and recommended 35metres of the inshore part of the consent be removed (the two inside lines) and shifted seaward on the farm. Refer below



Figure 5. Suggested 35 m wide shellfish farming exclusion area (red hatched) and location of drop camera images with rock substrata (black stars) or sorted fine sand/shell (open stars).

The applicant accepts this recommendation and will removed then lines when harvested if the consent is grant. Refer to Proposed subdivision and renewal of marine farms plan.

The report concludes that no monitoring is required.

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

7.2 The Land Environment

The site lies on the eastern side of Yncyca Bay. (Refer attached locality map.)

The adjacent land is regenerating bush, forestry and private holiday homes.

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

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

8.0 NAVIGATION MATTERS

8.1 The Shoreline

The distance from the shoreline holds with the conventions established in the Marlborough Sounds Resource Management Plan, that is the inshore boundary of the farm is beyond 50 metres from the mean low water mark.

8.2 Headlands

There are no headlands adjacent to the site.

8.3 Navigational Routes (Formal/Informal)

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

There is a jetty, owned by the applicant close to the consent and the design of the farm allows clear access to it. The removal of the two inside lines to the outside of the farm will allow more space to manoeuvre vessels inside the farm. The farm does not impede vessel movements along the coastline or access to the adjacent land.

8.4 Anchorages or Mooring Areas (Formal/Informal)

There are 2 registered moorings directly adjacent to the site (2168, 2166) these are owned by the marine farm site owners. There are also moorings to north (259,3418) and south of the farm (2167,2159).

The farm does not impede on access to these moorings.

8.5 Indirect Effects-Servicing vessels at site

The Applicant estimates farming and harvesting vessels will visit the site on an average of 60-65 days year, for periods of 0.5 to 10 hrs to undertake farm maintenance, seeding and harvesting. The total number of hours spent on these activities is estimated to be 180-190 hrs annually.

8.6 Water Ski Lanes

There are no formal water ski lanes in the vicinity.

8.7 Sub-Marine Cables

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

9.0 AESTHETIC

9.1 Land Zoned for Residential Use or Proximity to Residences

The land adjacent to the site zoned Sounds Residential and Rural 1.

There are residential houses located on the land adjacent to the site. The nearest residences are approximately 150 metres from the site including the owner of the marine farm.

9.2 Scenic Value

The area has not been identified within the Marlborough Sounds Resource Management Plan as being an area of outstanding natural landscape value.

The area has not been described as an area of outstanding natural landscape or features in the proposed Plan.

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

10.0 ECOLOGICAL VALUE

There is no ecological value identified in the Marlborough Sounds Resource Management Plan for Site 8642.

“No significant sites are known from Yncyca Bay (Davidson et al., 2011).”

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

11.0 RECREATIONAL VALUE

The visual impact of the marine farm will not change.

Access to the coast for recreationalists is maintained.

12.0 HISTORICAL, TRADITIONAL AND CULTURAL VALUES

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

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

13.0 COMMERCIAL AND RECREATIONAL FISHING

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

13.1 Commercial Fishing

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

13.2 Recreational Fishing

It is the Applicant's view that the marine farm at the site enhances opportunities for recreational fishing, as marine farms generally tend to create an ecosystem which is conducive to the presence of reef fish and other fish species.

14.0 VISUAL EFFECTS OF THE FARM

Visual effects will remain the same as they exist at the present. The farm structures presently consist of 13 long lines of 110 metres in length containing black mussel buoys ranging between approximately 4 and 50 per line.

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

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

15.0 EFFECTS ON WATER QUALITY AND ECOLOGY

Water quality of the area is suitable for mussel farming. The site relies on water quality to enable the process of mussel farming to flourish. The site 8642 has a good capacity for mixing of water with regular tidal currents, wind and wave action.

The effect on the ecology of the site from the existing activity is attached in the Davidson Environmental Limited Report 870.

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

16.0 EFFECTS ON PRODUCTIVITY

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

Based on these considerations it is probable the site is not subjected to high phytoplankton depletion issues.

"Yncyca Bay is a relatively open bay and is very close to the main channel of Pelorus Sound. It is therefore likely that water residence times are short compared to bays further distant where turnover times are often multiple days (e.g. Hallam Cove). Based on these considerations it is probable the site is not subjected to high phytoplankton depletion issues. Davidson Report (Benthic Report 870, refer attached)."

17.0 THE BENTHIC ENVIRONMENT

In terms of the benthic environment, the ecology of this area has been documented in Davidson Environmental Ltd Report 870 (refer to 7.1 above).

There is a change to the site boundary as discussed in 7.0 necessary to mitigate any adverse impacts on the inshore seabed.

18.0 ALIENATION OF PUBLIC SPACE

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

19.0 HARVESTING

As part of this Application, the Applicant seeks to continue harvesting mussel crops. The right to navigate to and from the farm, and to anchor, moor and load crop is preserved by section 27 of the Marine and Coastal Area (Takutai Moana) Act 2011. However, consent is required for the amount of organic waste matter which is discharged during the harvesting process and for the take and use of coastal water. No significant historical adverse effects have been recorded or are anticipated and any visual evidence of harvesting quickly dissipates in the coastal environment.

Vessels will be required to service the farm on an irregular basis (refer 8.5).

20.0 ON SHORE FACILITIES

All farm work and harvesting is undertaken by contractors based out of Havelock.

The mussels harvested from the farm are processed by a factory in Havelock.

21.0 VALUE OF INVESTMENT

As part of this Application to renew site 8642, the Applicant is seeking to re-consent the site as a single unit and surrender the existing Consents, when the Application is granted for a period of 20 years. As a result, this is an Application to which section 165ZH(1)(c) applies and the Council must, when considering the application, have regard to the value of the investment of the existing consent holder under section 104(2A).

The farm produces approximately 200 tonnes per annum (\$950/ Green Weight Tonne (GWT)) and after processing the final ½ shell product would be sold on the export market at approximately \$500,000. It is estimated that 95% of mussel products are exported. All lines are restocked after harvest to achieve 200 GWT/per annum harvest.

22.0 PART II RESOURCE MANAGEMENT ACT ISSUES

22.1 Section 5

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

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

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

22.2 Section 6

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

The Proposal recognises:

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

Section 6(a) is given effect through Policy 13 of the New Zealand Coastal Policy Statement and is considered further below.

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

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

The effects of the Application on the landscape will be the same as the present Consent and any effects will not impact on the values which contribute to the landscape.

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

The adjacent vegetation next to the farm is forestry and regenerating bush.

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

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

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

The Applicant is unaware of any new historical sites on land nearby identified since the last Application. This will be confirmed through consultation with Iwi.

22.3 Section 7

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

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

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

23.0 NEW ZEALAND COASTAL POLICY STATEMENT 2010 (NZCPS)

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

23.1 Policy 2

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

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

The iwi management plans of Ngāti Kōata and Te Ātiawa o Te Waka-a-Māui have been reviewed.

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

The Applicant will discuss the proposal further with relevant Iwi representatives if this is requested.

23.2 Policy 6

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

The farm is part of the existing built environment, so is in accordance with subpart 1(f), as continuation of the farm would not result in a change in the present character of Yncycy Bay.

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

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

23.3 Policy 8

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

(a) including in regional policy statements and regional coastal plans provision for aquaculture activities in appropriate places in the coastal environment, recognising that relevant considerations may include:

- i. The need for high quality water for aquaculture activities; and*
- ii. The need for land-based facilities associated with marine farming.*

(b) Taking account of the social and economic benefits of aquaculture, including any available assessments of national and regional economic benefits; and

(c) Ensuring that development in the coastal environment does not make water quality unfit for aquaculture activities in areas approved for that purpose.

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

23.4 Policy 11

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

The farm is located over mud habitat and avoids any reef areas or any other areas of significant biodiversity. There will be no adverse modified effects on indigenous biodiversity.

23.5 Policy 13

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

The area has not been identified within the 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 or very high or high natural character in the proposed Plan.

23.6 Policy 15

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

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

There will be no further impact on the landscape than those already occurring under the current consent. The effects of the Application on the landscape will be minor and the effects are not likely to impact on the values which contribute to the landscape.

23.7 Policy 18

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

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

There are registered moorings in the direct vicinity of the site, the farm does not impede navigation to these moorings. There are no formal water ski lanes. Opportunities for recreational fishing may be enhanced by the presence of the marine farm.

23.8 Policy 22

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

23.9 Policy 23

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

Conclusion

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

24.0 REGIONAL POLICY STATEMENT/MARLBOROUGH SOUNDS RESOURCE MANAGEMENT PLAN

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

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

Conclusion

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

25.0 CONSULTATION

A letter has been sent to all Iwi listed below identifying the site prior to the application being submitted. A meeting was held with Ngāti Kuia on 6 September 2017 and Ngāti Kōata

The adjacent Landowners (Jacobson, Taylor, Tolson and Sinclair) have all been approached and they have no objection to the renewal.

Name	Address	Phone
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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

26.0 CONCLUSION

The Applicant considers that the renewal of site 8642 is appropriate, thereby allowing the continued farming of Greenshell mussels and other species at the site.

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

Appendix A: Marlborough Regional Policy Statement – Policy Analysis

Objective	Policy	Assessment
5.3.2: 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 Greenshell Mussel Environmental Code of Practice.
	8.1.5: Promote enhancement of the nature and character of indigenous, working, and built landscapes by all activities which use land and water.	The marine farm will have no additional impact on landscape values.
	8.1.6: Preserve the natural character of the coastal environment.	The site will have no additional impact on the natural character of the coastal environment.

Appendix B: Marlborough Sounds Resource Management Plan – Policy Analysis

Objective	Policy	Assessment
Ch 2, 2.2, Obj 1: The preservation of the natural character of the coastal environment, wetlands, lakes, and rivers and their margins and the protection of them from inappropriate subdivision, use and development.	Policy 1.1: Avoid the adverse effects of subdivision, use or development within those areas of the coastal environment and freshwater bodies which are predominantly in their natural state and have natural character which has not been compromised.	This application is set in an area which is forestry, holiday homes and regenerating bush. The marine farm is within a bay with other marine farms.
	Policy 1.2: Appropriate use and development will be encouraged in areas where the natural character of the coastal environment has already been compromised, and where the adverse effects of such activities can be avoided, remedied or mitigated.	Refer above.
	Policy 1.3: To consider the effects on those qualities, elements and features which contribute to natural character, including: a) Coastal and freshwater landforms; b) Indigenous flora and fauna, and their habitats; c) Water and water quality; d) Scenic or landscape values; e) Cultural heritage values, including historic places, sites of early settlement and sites of significance to iwi; and f) Habitat of trout.	These matters have been considered in the assessment of environmental effects.
	Policy 1.4: In assessing the actual or potential effects of subdivision, use or development on natural character of the coastal and freshwater environments, particular regard shall be had to the policies in Chapters, 3, 4, 5, 6, 12, 13 and Sections 9.2.1, 9.3.2 and 9.4.1 in recognition of the components of natural character.	The application will not have any additional impact on the components of these policies which impact natural character values.

	Policy 1.6: In assessing the appropriateness of subdivision, use or development in coastal and freshwater environments regard shall be had to the ability to restore or rehabilitate natural character in the area subject to the proposal.	Any residual impact on natural character will naturally rehabilitate on removal of the farm.
	Policy 1.7: To adopt a precautionary approach in making decisions where the effects on the natural character of the coastal environment, wetlands, lakes and rivers (and their margins) are unknown.	The effects of this application are not known and are discussed elsewhere in the assessment of environmental effects. A precautionary approach is not justified.
Ch 4, 4.3, Obj 1: The protection of significant indigenous flora and fauna (including trout and salmon) and their habitats from the adverse effects of use and development	Policy 1.2: Avoid, remedy or mitigate the adverse effects of land and water use on areas of significant ecological value.	The effect of the marine farm on the adjacent area will not have any effect on the flora and fauna of this area.
Ch 5, 5.3, Obj 1: Management of the visual quality of the Sounds and protection of outstanding natural features and landscapes from inappropriate subdivision, use and development	Policy 1.1: Avoid, remedy and mitigate adverse effects of subdivision, use and development, including activities and structures, on the visual quality of outstanding natural features and landscapes, identified according to criteria in Appendix One.	The effects of the application on the landscape will be the same as the current permitted activity and the effects are not likely to impact on the values which contribute to the landscape.
Ch 6, 6.1.2, Obj 1: Recognition and provision for the relationship of Marlborough's Maori to their culture and traditions with their ancestral lands, waters, sites, waahi tapu and other taonga.	Policies 1.1-1.5	<p>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 and meeting undertaken with Ngati Kuia.</p> <p>The applicant understands there are no known wahi tapu, taiapure, mataitai or other areas of significance to Maori in the vicinity of the application.</p>

Ch 8, 8.3, Obj 1: That public access <i>to and along</i> the coastal marine area, lakes and rivers be maintained and enhanced.	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.	<p>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:</p> <ul style="list-style-type: none"> a) Conservation and ecological values; b) Cultural and iwi values; c) Heritage and amenity values; d) Landscape, seascape and aesthetic values; e) Marine habitats and sustainability; f) Natural character of the coastal environment; g) Navigational safety; h) Other activities, including those on land; i) Public access to and along the coast; j) Public health and safety; k) Recreation values; and l) Water quality. 	The way in which adverse effects on the stated values will be avoided, remedied and mitigated is addressed elsewhere in the assessment of environmental effects. Overall, the proposal is consistent with this policy.

	Policy 1.2: Adverse effects of subdivision, use or development in the coastal environment should as far as practicable be avoided. Where complete avoidance is not practicable, the adverse effects should be mitigated and provision made for remedying those effects to the extent practicable.	The marine farm is within a bay with other marine farms. There are no additional adverse effects on the coastal environment from this farm. The navigational lighting requirements will not change from the existing consent.
	Policy 1.3: Exclusive occupation of the coastal marine area or occupation which effectively excludes the public will only be allowed to the extent reasonably necessary to carry out the activity.	Consistent with other marine farms in the Marlborough Sounds, exclusive occupation of the consent area is not sought, other than for the area physically occupied by the lines and anchoring devices.
	Policy 1.6: Ensure recreational interests retain a dominant status over commercial activities that require occupation of coastal space and which preclude recreational use in Queen Charlotte Sound, including Tory Channel, but excluding Port and Marina Zones.	Not applicable
	Policy 1.7: Avoid adverse effects from the occupation of coastal space in or around recognised casual mooring areas.	Exclusive occupation of the consent area is not sought. There are moorings located in the direct vicinity of the farm. The farm does not impede the navigation to any moorings.
	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 8642 is consented for marine farming, there are other marine farms consented in the bay.
	Policy 1.13: Enable the renewal as controlled activities of marine farms authorised by applications made prior to 1 August 1996 as controlled activities, apart from exceptions in Appendix D2 in the Plan.	NA
Ch 9, 9.3.2, Obj 1: Management of the effects of activities so that	Policies 1.1 to 1.11	This application is not anticipated to have any impact on shellfish quality.

water quality in the coastal marine area is at a level which enables the gathering or cultivating of shellfish for human consumption (Class SG).		
Ch 9, 9.4.1, Obj 1:	Policy 1.1: Avoid, remedy or mitigate the adverse effects of activities that disturb or alter the foreshore and/or seabed on any of the following: [criteria specified in Plan].	There will be no additional disturbances of the seabed.
Ch 9, 9.4A.1, Obj 1:	n/a	These policies are no longer relevant due to abolition of AMAs through legislation.
Ch 19, 19.3, Obj 1: Safe, efficient and sustainably managed water transport systems in a manner that avoids, remedies and mitigates adverse effects.	Policy 1.1: Avoid, remedy or mitigate the adverse effects of activities and structures on navigation and safety, within the coastal marine area.	There have been no reported navigational incidences in the bay. There will no changes to the existing consent conditions regarding the navigational aids placed on the farm.
Ch 22, 22.3, Obj 1: To avoid, remedy and mitigate the adverse effects of unreasonable noise, while allowing for reasonable noise associated with port activities.	Policy 1.1: Avoid, remedy and mitigate community disturbance, disruption or interference by noise within coastal, rural, and urban areas.	There are residents and holiday homes in the direct vicinity of the farm. A servicing vessel is estimated to spend approximately 180 to 190 hours per annum maintaining and harvesting the lines per year. The applicant complies with the 'Code of Practice to avoid, remedy or mitigate noise from marine farming activities in the Marlborough Sounds, Golden Bay and Tasman Bay on other users and residents'

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

MEP Provision	Evaluation
<p>Objective 3.2 – Natural and physical resources are managed in a manner that takes into account the spiritual and cultural values of Marlborough’s tangata whenua iwi and respects and accommodates tikanga Māori. [RPS]</p>	<p>The applicant has prepared the application in a manner that takes into account the spiritual and cultural values of Marlborough’s tangata whenua iwi.</p> <p>Recognition is given to Māori culture and traditions and confirmation from Iwi is sought to ensure the proposal does not affect these values.</p>
<p>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]</p>	<p>See sections 12 and 22 AEE.</p>
<p>Objective 3.5 – Resource management decision making processes that give particular consideration to the cultural and spiritual values of Marlborough’s tangata whenua iwi. [RPS]</p>	<p>The applicant has given particular consideration to the matters in objective 3.5, as discussed the AEE at sections 12 and 22, in order to assist decision makers.</p>
<p>Policy 3.1.1 – Management of natural and physical resources in Marlborough will be carried out in a manner that:</p> <ul style="list-style-type: none"> (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. 	<p>See above.</p>

MEP Provision	Evaluation
[RPS]	
<p>Policy 3.1.2 – An applicant will be expected to consult early in the development of a proposal (for resource consent or plan change) so that cultural values of Marlborough’s tangata whenua iwi can be taken into account.</p> <p>[RPS]</p>	See above.
<p>Policy 3.1.3 – Where an application for resource consent or plan change is likely to affect the relationship of Marlborough’s tangata whenua iwi and their culture and traditions, decision makers shall ensure:</p> <ul style="list-style-type: none"> (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: <ul style="list-style-type: none"> i. aesthetic and sensory qualities, e.g. clarity, colour, natural character, smell and sustenance for indigenous flora and fauna; ii. life-supporting capacity, ecosystem robustness and habitat richness; iii. depth and velocity of flow (reflecting the life force of the river through its changing character, flows and fluctuations); iv. continuity of flow from the sources of a river to its mouth at the sea; 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. <p>[RPS]</p>	<p>The applicant has had regard to the matters in Policy 3.1.3, as set out above, and in the AEE. Ecological effects have been assessed by Davidson Environmental in the report annexed to this application.</p>

MEP Provision	Evaluation
<p>Policy 3.1.5 – Ensure iwi management plans are taken into account in resource management decision making processes. [RPS]</p>	<p>The applicant has reviewed the Iwi management plans of Ngāti Kōata and Te Ātiawa o Te Waka-a-Māui.</p>
<p>Objective 4.1 – Marlborough’s primary production sector and tourism sector continue to be successful and thrive whilst ensuring the sustainability of natural resources. [RPS]</p>	<p>The application will support the mussel farming industry in Marlborough and provide an opportunity for that industry to grow. The proposal ensures the sustainability of natural resources, as the adverse effects of mussel farming at the site are likely to be limited, as per the Davidson Environmental report. Within months of removing the farms, any trace of their presence will dissipate. Therefore, the proposal does not restrict the ability of future generations to decide how they wish to use these resources.</p>
<p>Policy 4.1.2 – Enable sustainable use of natural resources in the Marlborough environment. [RPS]</p>	<p>As above at Objective 4.1.</p>
<p>Policy 4.1.3 – Maintain and enhance the quality of natural resources. [RPS]</p>	<p>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.</p>
<p>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>	<p>The ecological character of the site will be maintained (see Davidson Environmental report). The application site is located over a habitat of sandy mud, typical of similar areas in the Sounds. The effects of low intensity farming are not likely to be significant. The relatively strong currents at the site are sufficient to prevent the accumulation of organic deposition.</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 CMZ2 under the operative MSRMP, which suggests that aquaculture is appropriate in the area.
Policy 4.3.4 – Enhance the qualities and values that contribute to the unique and iconic character of the Marlborough Sounds. [RPS]	The proposal will not have significant effects on the qualities and values of the Sounds, and any effects are reversible upon removal of the farms.
Policy 4.3.5 – Recognise that the Marlborough Sounds is a dynamic environment [RPS]	The applicant recognises that the Sounds is a dynamic environment. The appropriateness of the farm can be re-assessed by future generations in the context of the future environment of the area through the resource consenting process.
Objective 5.10 – Equitable and sustainable allocation of public space within Marlborough’s coastal marine area. [RPS, C]	The applicant acknowledges that it is a privilege to occupy public space in the coastal marine area. The public will still have access around and through the site, and the proposal will not affect the ability of future generations to enjoy that public space.
Policy 5.10.1 – Recognition that there are no inherent rights to be able to use, develop or occupy the coastal marine area. [RPS, C]	The applicant recognises that it has no inherent right to occupy and use the coastal marine area, and requires resource consent for the proposed activity.
Policy 5.10.2 – The ‘first in, first served’ method is the default mechanism to be used in the allocation of resources in the coastal marine area. Where competing demand for coastal space becomes apparent, the Marlborough District Council may consider the option of introducing an alternative regime. [RPS, C]	The applicant considers that the first in first served method of allocation is appropriate for applications that meet the statutory requirements.

MEP Provision	Evaluation
Policy 5.10.3 – Where a right to occupy the coastal marine area is sought, the area of exclusive occupation should be minimised to that necessary and reasonable to undertake the activity, having regard to the public interest. [RPS, C]	The design of the site layout ensures the public will have access inshore of and through the farm.
Policy 5.10.4 – Coastal occupancy charges will be imposed on coastal permits where there is greater private than public benefit arising from occupation of the coastal marine area. [C]	The applicant has insufficient information on coastal occupancy charges to understand the implications.
Policy 5.10.5 – The Marlborough District Council will waive the need for coastal occupancy charges for the following: ... (b) monitoring equipment; [C]	Davidson Environmental has not indicated that ongoing monitoring is necessary at this site.
Policy 5.10.6 – Where there is an application by a resource consent holder to request a waiver (in whole or in part) of a coastal occupation charge, the following circumstances will be considered: [(a) – (d)] [C]	Refer Policy 5.10.4
Objective 6.2 – Preserve the natural character of the coastal environment, and lakes and rivers and their margins, and protect them from inappropriate subdivision, use and development. [RPS, R, C, D]	The farm will not adversely compromise the existing values of the area and is appropriate development
Policy 6.2.1 – Avoid the adverse effects of subdivision, use or development on areas of the coastal environment with outstanding natural character values... [RPS, R, C, D]	N/A –site is not identified in the MEP 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.

MEP Provision	Evaluation
<p>Policy 6.2.3 – Where natural character is classified as high or very high, avoid any reduction in the degree of natural character of the coastal environment or freshwater bodies. [RPS, R, C, D]</p>	<p>The area is not classified as having high natural character in the MEP. There will be no change in the degree of the biological components of natural character.</p>
<p>Policy 6.2.4 – Where resource consent is required to undertake an activity within coastal or freshwater environments with high, very high or outstanding natural character, regard will be had to the potential adverse effects of the proposal on the elements, patterns, processes and experiential qualities that contribute to natural character. [RPS, R, C, D]</p>	<p>See above and AEE sections 9 and 22.3.</p>
<p>Policy 6.2.5 – Recognise that development in parts of the coastal environment and in those rivers and lakes and their margins that have already been modified by past and present resource use activities is less likely to result in adverse effects on natural character. [RPS, R, C, D]</p>	<p>The proposal is less likely to have an adverse effect on natural character, given existing development in the area.</p>
<p>Policy 6.2.6 – In assessing the appropriateness of subdivision, use or development in coastal or freshwater environments, regard shall be given to the potential to enhance natural character in the area subject to the proposal. [RPS, R, C, D]</p>	<p>The effects are not of a scale to justify an enhancement programme.</p>
<p>Policy 6.2.7 – In assessing the cumulative effects of activities on the natural character of the coastal environment, or in or near lakes or rivers, consideration shall be given to: (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]</p>	<p>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.</p>
<p>Objective 7.2 – Protect outstanding natural features and landscapes from inappropriate subdivision, use and development and maintain and enhance landscapes with high amenity value.</p>	<p>The area is not mapped as ONFL (although these maps are subject to challenge through the consultation process on the MEP).</p>

MEP Provision	Evaluation
<p>Policy 7.2.1 – Control activities that have the potential to degrade those values contributing to outstanding natural features and landscapes by requiring activities and structures to be subject to a comprehensive assessment of effects on landscape values through the resource consent process.</p> <p>[R, C, D]</p>	<p>See above and sections 9</p>
<p>Policy 7.2.3 – Control activities that have the potential to degrade the amenity values that contribute to those areas of the Marlborough Sounds Coastal Landscape not identified as being an outstanding natural feature and landscape by:</p> <ul style="list-style-type: none"> (a) using a non-regulatory approach as the means of maintaining and enhancing landscape values in areas of this landscape zoned as Coastal Living; (b) setting standards/conditions that are consistent with the existing landscape values and that will require greater assessment where proposed activities and structures exceed those standards; and... <p>[C, D]</p>	<p>Policy 7.2.3(b) does not apply to the proposed site, because aquaculture rules have yet to be included in the MEP. As a result, 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.</p>
<p>Policy 7.2.4 – Where resource consent is required to undertake an activity within an outstanding natural feature and landscape or a landscape with high amenity value, regard will be had to the potential adverse effects of the proposal on the values that contribute to the landscape.</p> <p>[R, C, D]</p>	<p>See above.</p>
<p>Policy 7.2.5 – Avoid adverse effects on the values that contribute to outstanding natural features and landscapes in the first instance. Where adverse effects cannot be avoided and the activity is not proposed to take place in the coastal environment, ensure that the adverse effects are remedied.</p> <p>[R, C, D]</p>	<p>See above.</p>
<p>Policy 7.2.7 – Protect the values of outstanding natural features and landscapes and the high amenity values of the Wairau Dry Hills and the Marlborough Sounds Coastal Landscapes by:</p> <p>(a) In respect of structures:</p> <ul style="list-style-type: none"> (i) avoiding visual intrusion on skylines, particularly when viewed from public places; (ii) avoiding new dwellings in close proximity to the foreshore; (iii) using reflectivity levels and building materials that complement the colours in the surrounding landscape; (iv) limiting the scale, height and placement of structures to minimise intrusion of built form into the landscape; (v) recognising that existing structures may contribute to the landscape character of an 	<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>

MEP Provision	Evaluation
<p>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> <p>[R, C, D]</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>
<p>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.</p> <p>[R, C, D]</p>	<p>See above.</p>
<p>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.</p>	<p>The site is not mapped as an area of ecological significance in the MEP.</p> <p>The effect of the marine farm on the adjacent area will not have an effect on the flora and fauna of this area.</p>
<p>Policy 8.3.2 – Where subdivision, use or development requires resource consent, the adverse effects on areas, habitats or ecosystems with indigenous biodiversity value shall be: (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</p>	<p>According to the Davidson Environmental report, the proposed farm is consistent with policy 8.3.2(b).</p>

MEP Provision	Evaluation
<p>Policy 8.3.5 – In the context of Policy 8.3.1 and Policy 8.3.2, adverse effects to be avoided or otherwise remedied or mitigated may include: [(a) – (t)]</p>	<p>See AEE and Davidson Environmental report.</p>
<p>Policy 8.3.8 – With the exception of areas with significant indigenous biodiversity value, where indigenous biodiversity values will be adversely affected through land use or other activities, a biodiversity offset can be considered to mitigate residual adverse effects. Where a biodiversity offset is proposed, the following criteria will apply:</p> <ul style="list-style-type: none"> (a) the offset will only compensate for residual adverse effects that cannot otherwise be avoided, remedied or mitigated; (b) the residual adverse effects on biodiversity are capable of being offset and will be fully compensated by the offset to ensure no net loss of biodiversity; (c) where the area to be offset is identified as a national priority for protection under Objective 8.1, the offset must deliver a net gain for biodiversity; (d) there is a strong likelihood that the offsets will be achieved in perpetuity; (e) where the offset involves the ongoing protection of a separate site, it will deliver no net loss and preferably a net gain for indigenous biodiversity protection; and (f) offsets should re-establish or protect the same type of ecosystem or habitat that is adversely affected, unless an alternative ecosystem or habitat will provide a net gain for indigenous biodiversity. 	<p>Biodiversity offsetting is not justified in this case.</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. [RPS, R, C, D]</p>	<p>See sections 8, 9, 11, 13, 14 and 18 of the AEE.</p>
<p>Policy 9.1.1 – The following areas are identified as having a high degree of importance for public access and the Marlborough District Council will as a priority focus on enhancing access to and within these areas:</p> <ul style="list-style-type: none"> (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>N/A</p>

MEP Provision	Evaluation
[RPS]	
<p>Policy 9.1.2 – In addition to the specified areas in Policy 9.1.1, the need for public access to be enhanced to and along the coastal marine area, lakes and rivers will be considered at the time of subdivision or development, in accordance with the following criteria:</p> <ul style="list-style-type: none"> (a) there is existing public recreational use of the area in question, or improving access would promote outdoor recreation; (b) connections between existing public areas would be provided; (c) physical access for people with disabilities would be desirable; and (d) providing access to areas or sites of cultural or historic significance is important. <p>[RPS, C, D]</p>	<p>See above. The farm will not prevent access to areas or sites of cultural and historic significance in the area.</p>
<p>Policy 9.1.5 – Acknowledge the importance New Zealander’s place on the ability to have free and generally unrestricted access to the coast.</p> <p>[RPS, C, D]</p>	<p>The applicant acknowledges the importance to New Zealanders of having unrestricted access to the coast. The site design ensures that the public will continue to have access through the site and along the shore.</p>
<p>Policy 9.1.7 – Recognise there is an existing network of marinas at Picton, Waikawa and Havelock, publicly owned community jetties, landing areas and launching ramps that make a significant contribution in providing access for the public to Marlborough’s coastal areas.</p> <p>[RPS, C]</p>	<p>The proposed farm will be able to be accessed from the existing facilities of a contractor or lessee.</p>
<p>Policy 9.1.8 – Enable public use of jetties for the purposes of access to the Sounds Foreshore Reserve and legal road along the coast.</p> <p>[RPS, C]</p>	<p>There is a privately-owned jetty in the vicinity of the site. Access is maintained.</p>
<p>Policy 9.1.13 – When considering resource consent applications for activities, subdivision or structures in or adjacent to the coastal marine area, lakes or rivers, the impact on public access shall be assessed against the following:</p> <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 	<p>The structures have a functional need to be located in the coastal marine area. The public will have access through and around the site. 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</p>

MEP Provision	Evaluation
<p>cannot be located elsewhere; ...</p> <p>(d) the extent to which the activity/subdivision/structure would benefit or adversely affect public access, customary access and recreational use, irrespective of its intended purpose;</p> <p>(e) in the coastal marine area, whether exclusive rights of occupation are being sought as part of the application;</p> <p>(f) for the Marlborough Sounds, whether there is practical road access to the site of the application;</p> <p>(g) how public access around or over any structure sought as part of an application is to be provided for;</p> <p>(h) whether the impact on public access is temporary or permanent and whether there is any alternative public access available; and</p> <p>(i) whether public access is able to be restricted in accordance with Policies 9.2.1 and 9.2.2.</p> <p>[C, D]</p>	<p>mussels, in line with policy 9.2.1. The effects on public access will be no more than minor, in accordance with policy 9.2.2.</p>
<p>Policy 9.3.2 – Seek diversity in the type and size of open spaces and recreational facilities to meet local, district, regional and nationwide needs, by: ... (d) recognising and protecting the value of open space in the coastal marine area, high country environments and river beds.</p> <p>[RPS, C, D]</p>	<p>The applicant recognises the value of open space and has designed the site layout with this in mind.</p>
<p>Objective 10.1 – Retain and protect heritage resources that contribute to the character of Marlborough.</p> <p>[RPS]</p>	<p>See section 12 AEE.</p>
<p>Policy 10.1.3 – Identify and provide appropriate protection to Marlborough’s heritage resources, including:</p> <p>(a) historic buildings (or parts of buildings), places and sites;</p> <p>(b) heritage trees;</p> <p>(c) places of significance to Marlborough’s tangata whenua iwi;</p> <p>(d) archaeological sites; and</p> <p>(e) monuments and plaques.</p> <p>[RPS, C, D]</p>	<p>See above</p>

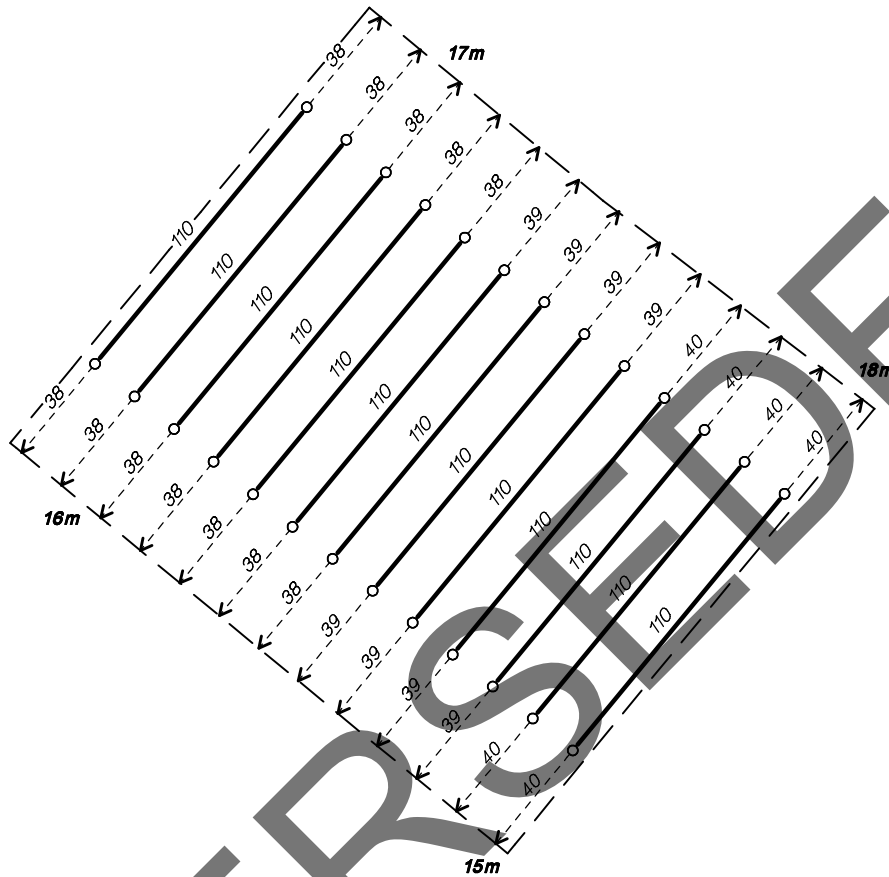
MEP Provision	Evaluation
Chapter 13 objectives and policies.	N/A – Chapter 13 expressly states that it “does not contain provisions managing marine farming.”
<p>Objective 15.1a – Maintain and where necessary enhance water quality in Marlborough’s rivers, lakes, wetlands, aquifers and coastal waters, so that:</p> <ul style="list-style-type: none"> (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. <p>[RPS, R, C]</p>	Mussel farming will not have an adverse effect on water quality, and may even enhance water quality.
<p>Policy 15.1.1 – As a minimum, the quality of freshwater and coastal waters will be managed so that they are suitable for the following purposes:</p> <ul style="list-style-type: none"> (a) Coastal waters: protection of marine ecosystems; potential for contact recreation and food gathering/marine farming; and for cultural and aesthetic purposes; ... <p>[RPS, R, C]</p>	Aquaculture requires excellent water quality. The proposed farm will not have an adverse effect on water quality.
<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>	Discharge from harvesting will not result in any of the specified adverse effects.

MEP Provision	Evaluation
<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 Davidson Environmental report. Discharge occurs during harvesting, and the effects are momentary and insignificant. Contaminants are materials that are already in the water column, such as sediments and organic materials trapped by lines and structures.</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>
<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>

MEP Provision	Evaluation
<p>Policy 15.1.16 – The duration of any new discharge permit will be either:</p> <p>(a) Up to a maximum of 15 years for discharges into waterbodies or coastal waters where the discharge will comply with water quality classification standards for the waterbody or coastal waters;</p> <p>... (c) no more than five years where the existing discharge will not comply with water quality classification standards for the waterbody or coastal waters.</p> <p>With the exception of regionally significant infrastructure, no discharge permit will be granted subsequent to the one granted under (c), if the discharge still does not meet the water quality classification standards for the waterbody or coastal waters.</p> <p>[R, C]</p>	<p>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.</p> <p>The applicant is seeking a 20 year resource consent. The AEE suggests that this term is appropriate in these circumstances.</p>



Yncyca Bay



Total Longlines = 13
Longline Spacing = 16.93m
Total Backbone Length = 1430m

REFERENCE

- Orange Float
- < Block or Screw Anchor
- - - - - Anchor Warp
- Backbone

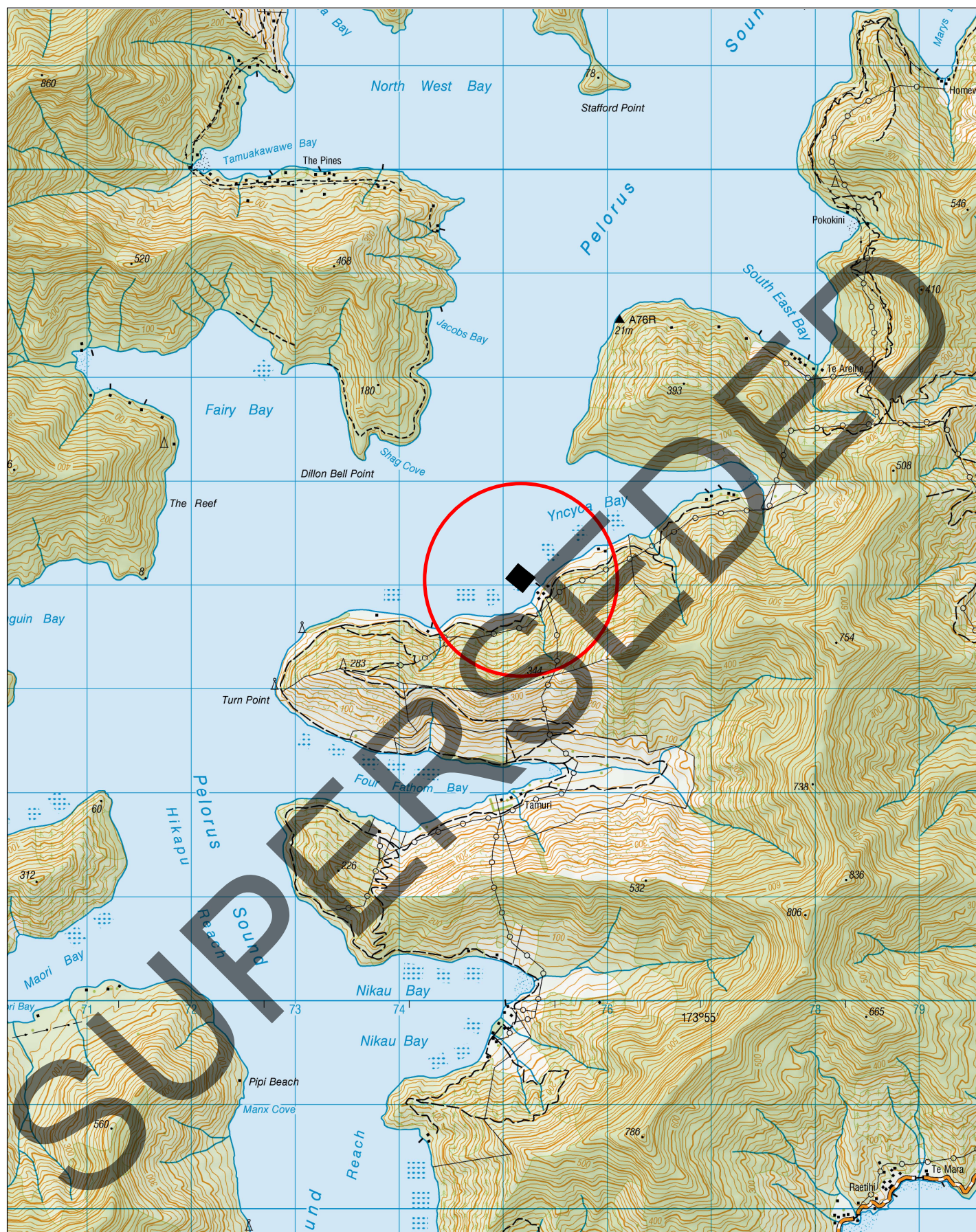


Structure Layout Marine Farm Site 8642 & Extn

SCALE 1:2500
50 0 50 100 150 m

Prepared by;
DRAUGHTING PLUS LTD

Date 2/10/17
MF_2507d

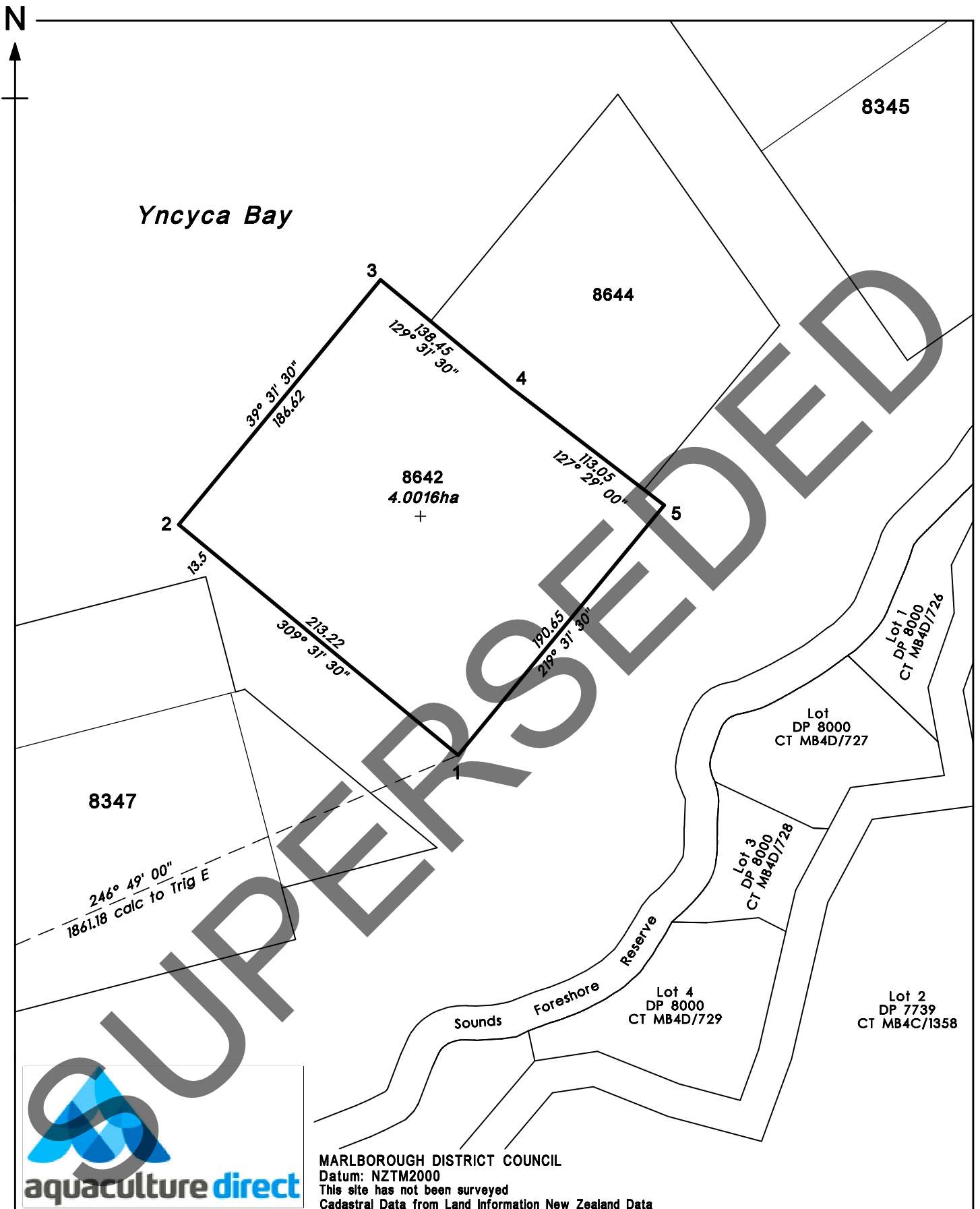


Topomap 50 Sheet: BP28

Base Topographical Data sourced from Land Information
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Locality Map

Renewal and Extension of Marine Farm 8642
and Subdivision of 8643
Yncyca Bay, Pelorus Sound



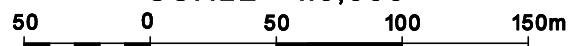
SCHEDULE OF COORDINATES
DATUM: NZTM

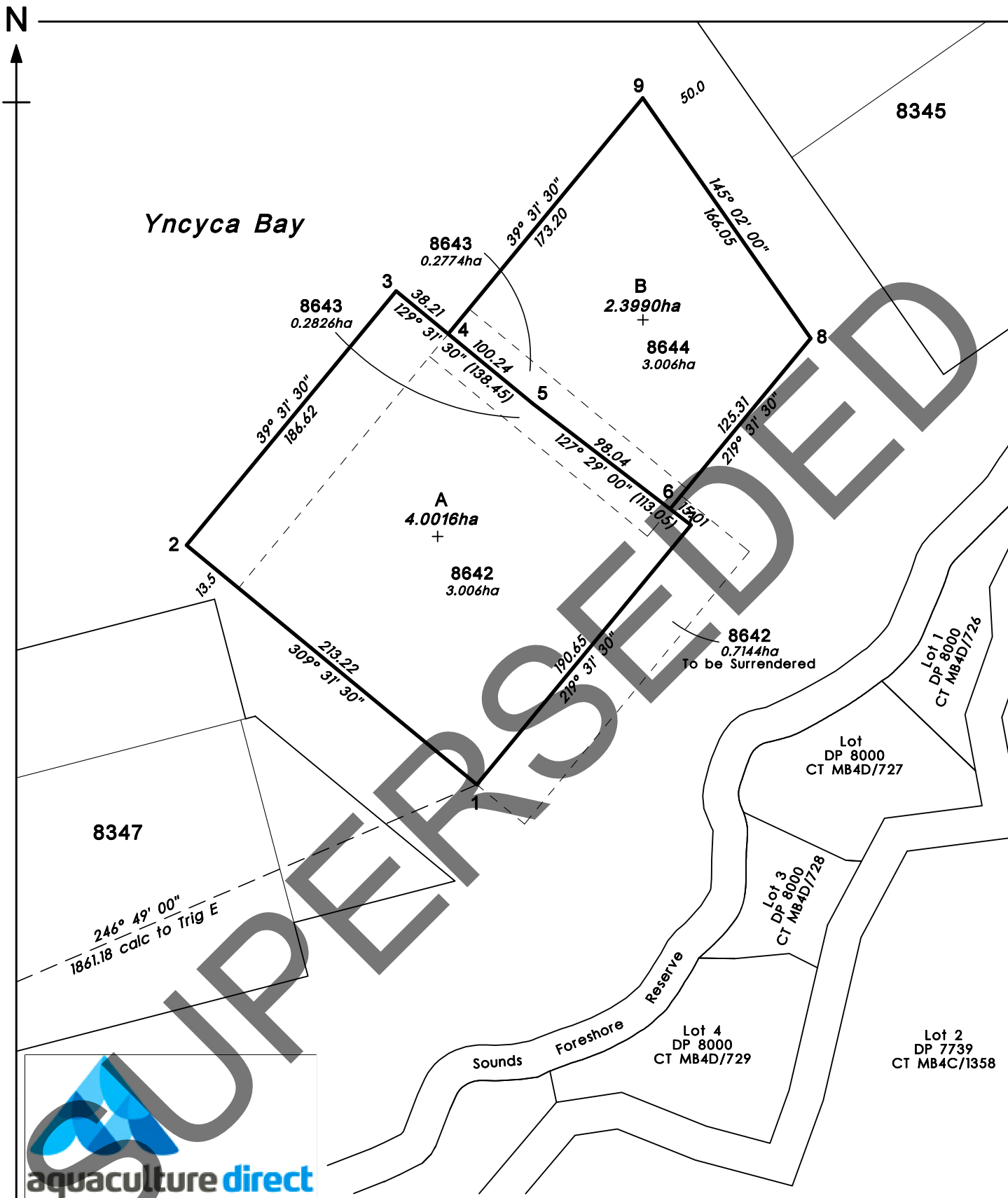
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2	1675021.04	5446064.38
3	1675139.81	5446208.33
4	1675217.12	5446144.53
5	1675306.83	5446075.74
Centroid	1675163.29	5446069.28
Trig E	1673474.61	5445195.98

Proposed Coastal Permit Renewal
of Marine Farm 8642
Yncyca Bay, Pelorus Sound

Prepared by
DRAUGHTING PLUS LTD
MF_2507d
2 October 2017

SCALE 1:3,000





SCHEDULE OF COORDINATES **DATUM: NZTM**

Point	East	North
1	1675185.50	5445928.68
2	1675021.04	5446064.38
3	1675139.81	5446208.33
4	1675169.28	5446184.01
5	1675217.12	5446144.53
6	1675294.92	5446084.87
7	1675306.83	5446075.74
8	1675374.67	5446181.53
9	1675279.51	5446317.60
A	1675163.29	5446069.28
B	1675279.59	5446192.00
Trig E	1673474.61	5445195.98

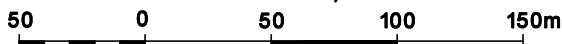
MARLBOROUGH DISTRICT COUNCIL
Datum: NZTM2000

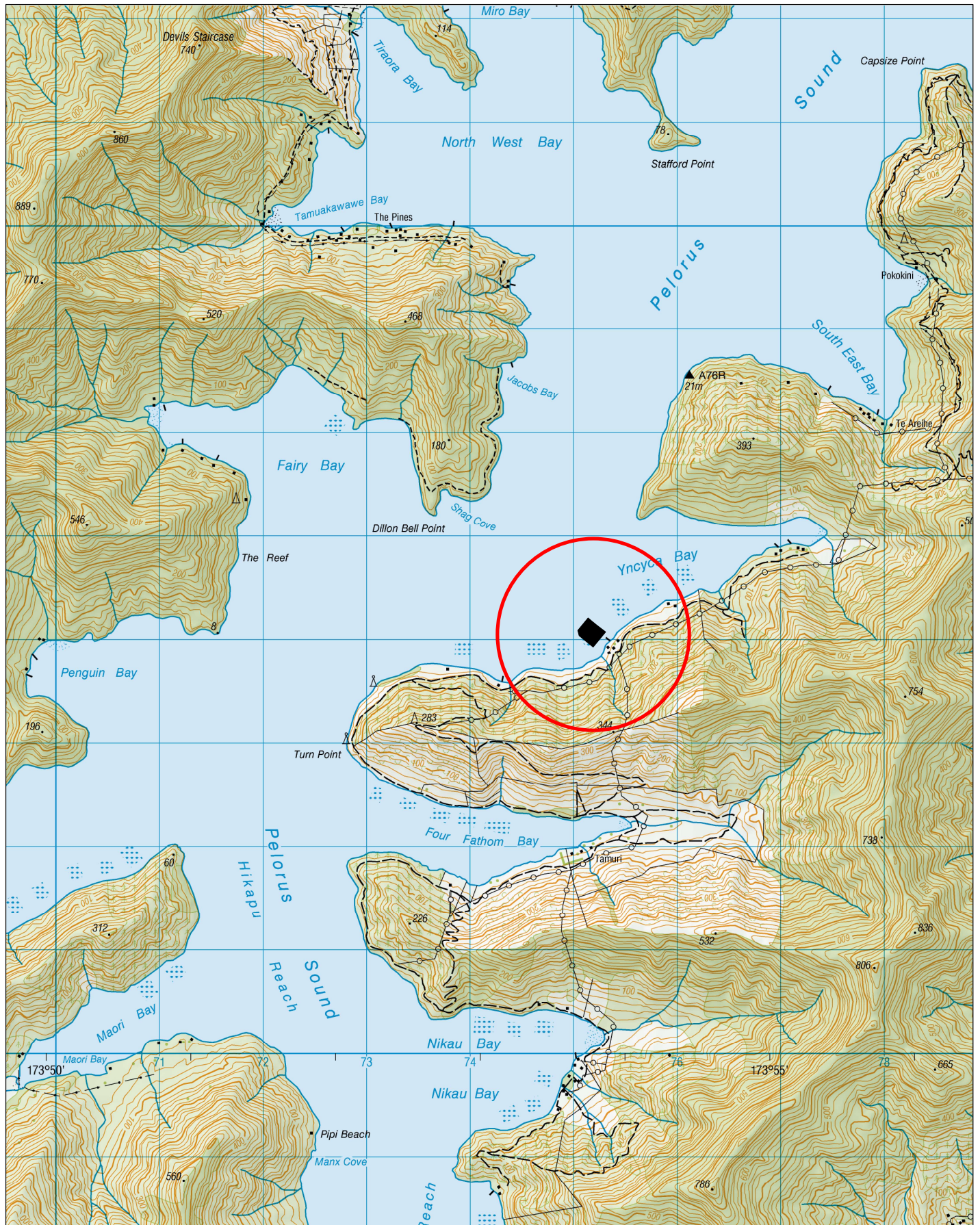
This site has not been surveyed
Cadastral Data from Land Information New Zealand Data

Proposed Subdivision and Renewal of Marine Farms 8642, 8643 & 8644 Yncyca Bay, Pelorus Sound

Prepared by
DRAUGHTING PLUS LTD
MF_2507c
28 September 2017

SCALE 1:3,000





Topomap 50 Sheet: BP28

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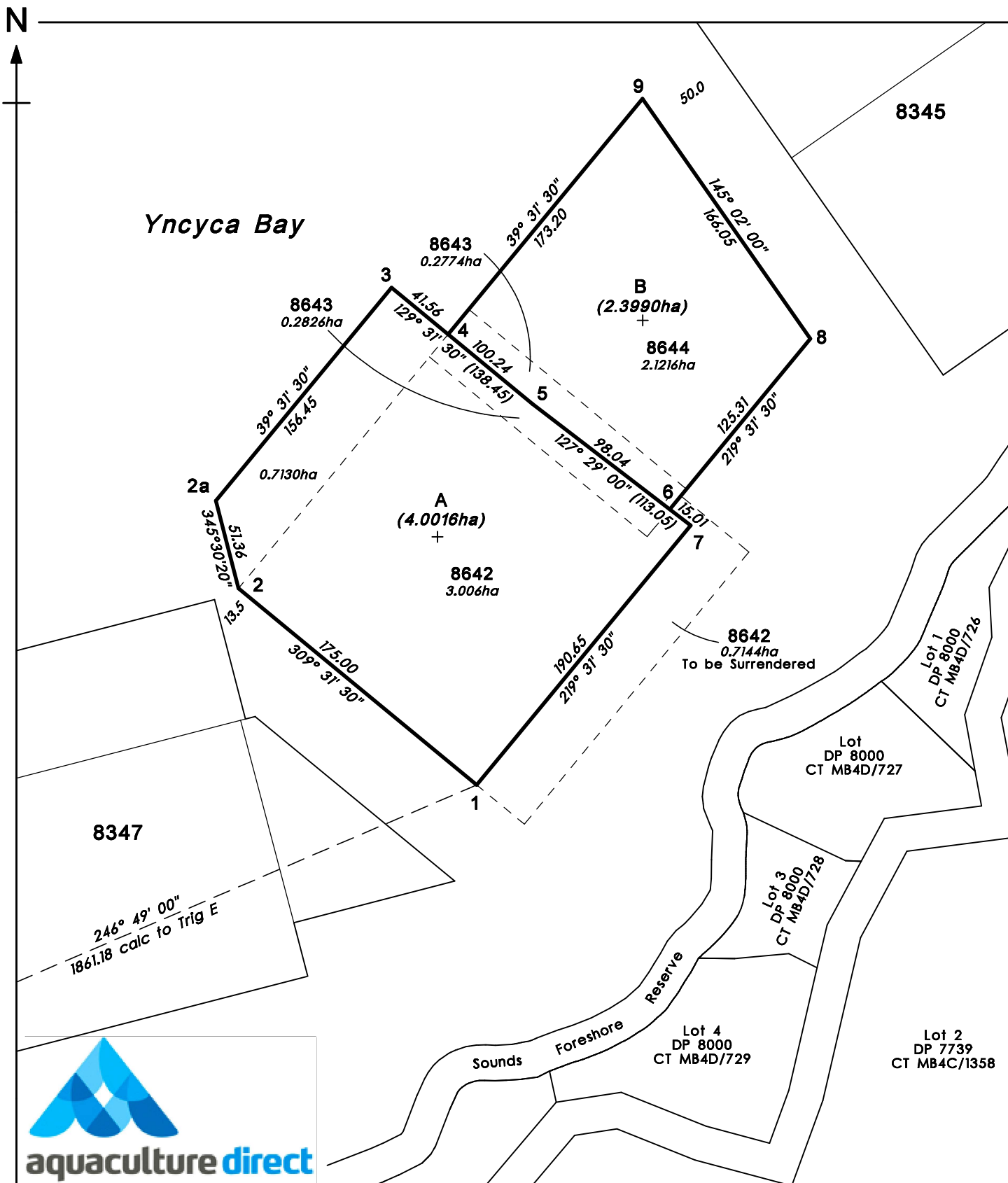
Prepared
29 January 2018

Locality Map

Renewal and Extension of Marine Farm 8642

Yncyca Bay, Pelorus Sound

Scale 1:50,000
500 0 500 1000 1500 2000 2500 3000 3500 Meters



SCHEDULE OF COORDINATES		
DATUM: NZTM		
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2	1675050.51	5446040.06
2a	1675037.66	5446089.78
3	1675137.22	5446210.46
4	1675169.28	5446184.01
5	1675217.12	5446144.53
6	1675294.92	5446084.87
7	1675306.83	5446075.74
8	1675374.67	5446181.53
9	1675279.51	5446317.60
A	1675163.29	5446069.28
B	1675279.59	5446192.00
Trig E	1673474.61	5445195.98

MARLBOROUGH DISTRICT COUNCIL
 Datum: NZTM2000
 This site has not been surveyed
 Cadastral Data from Land Information New Zealand Data

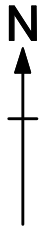
Site Amended Dec 2017

Proposed Subdivision and Renewal of Marine Farms 8642, 8643 & 8644 Yncyca Bay, Pelorus Sound

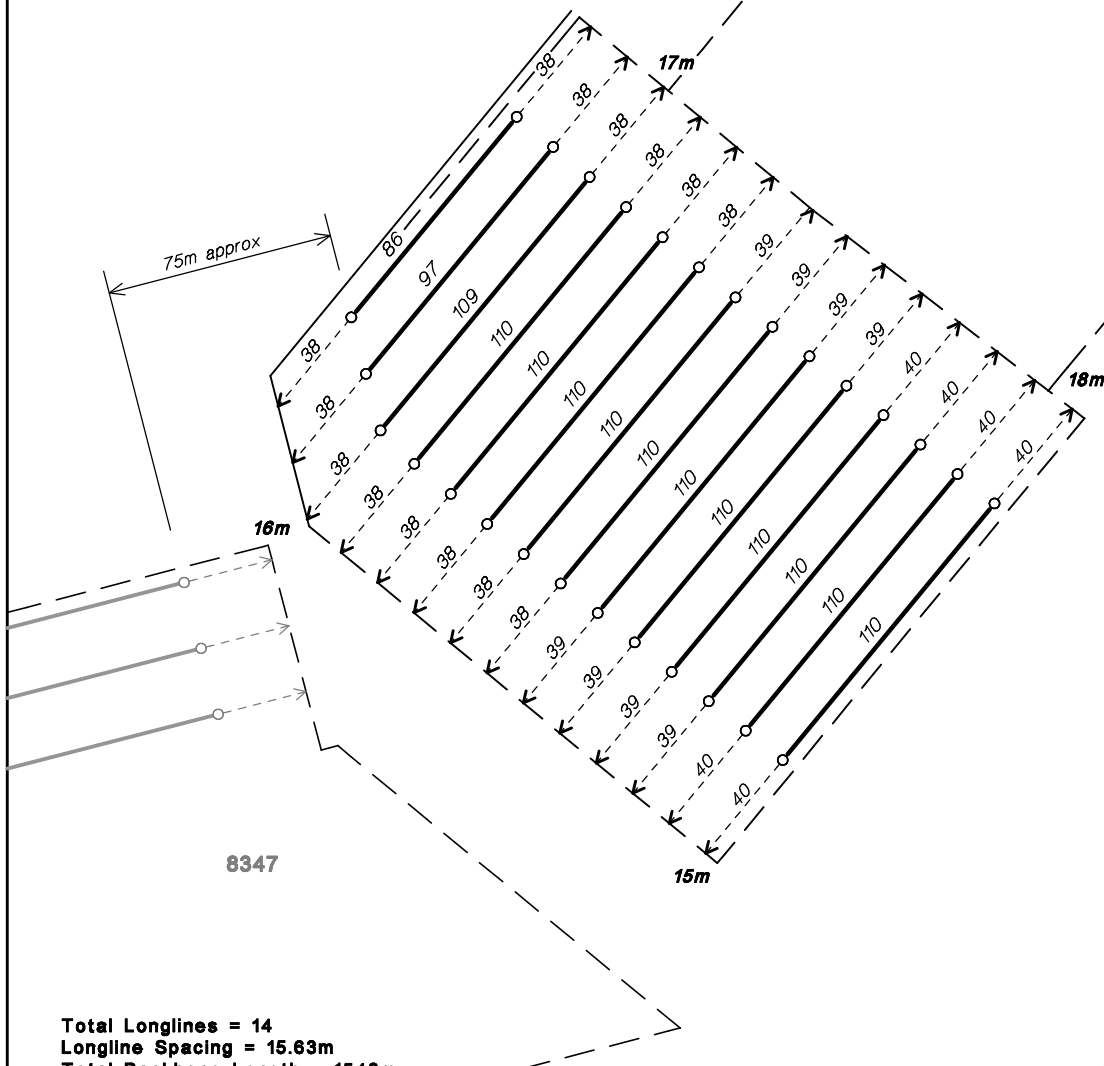
Prepared by
 DRAUGHTING PLUS LTD
 MF_2507d
 20 December 2017

SCALE 1:3,000





Yncyca Bay



Layout Amended Dec 2017

Structure Layout Marine Farm Site 8642 & Extn



50 0 50 100 150 m

SCALE 1:2500

Prepared by;
DRAUGHTING PLUS LTD

Date 20/12/17
MF_2507d



Davidson Environmental Limited

Biological report for the reconsenting of marine farm 8346, Yncyca Bay, Pelorus Sound

Research, survey and monitoring report number 870

A report prepared for:
Yncyca Mussel Farm Ltd & Sounds Fun Mussel Company
C/o Aquaculture Direct
Radio House 1 Main St,
Blenheim 7201

September 2017

Bibliographic reference:

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September 2017

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1.0 Introduction

The aim of the present study was to provide biological information including substratum and habitat for the consenting of marine farm 8346 in the Yncyca Bay, Pelorus Sound.

The 6.4 ha production mussel farm is located along the southern coastline of Yncyca Bay (Figure 1, Plate 1). The farm comprises several consents with variable expiry dates.

The report was commissioned by Aquaculture Direct Limited for the farm owners, Yncyca Mussel Farm Ltd & Sounds Fun Mussel Company.

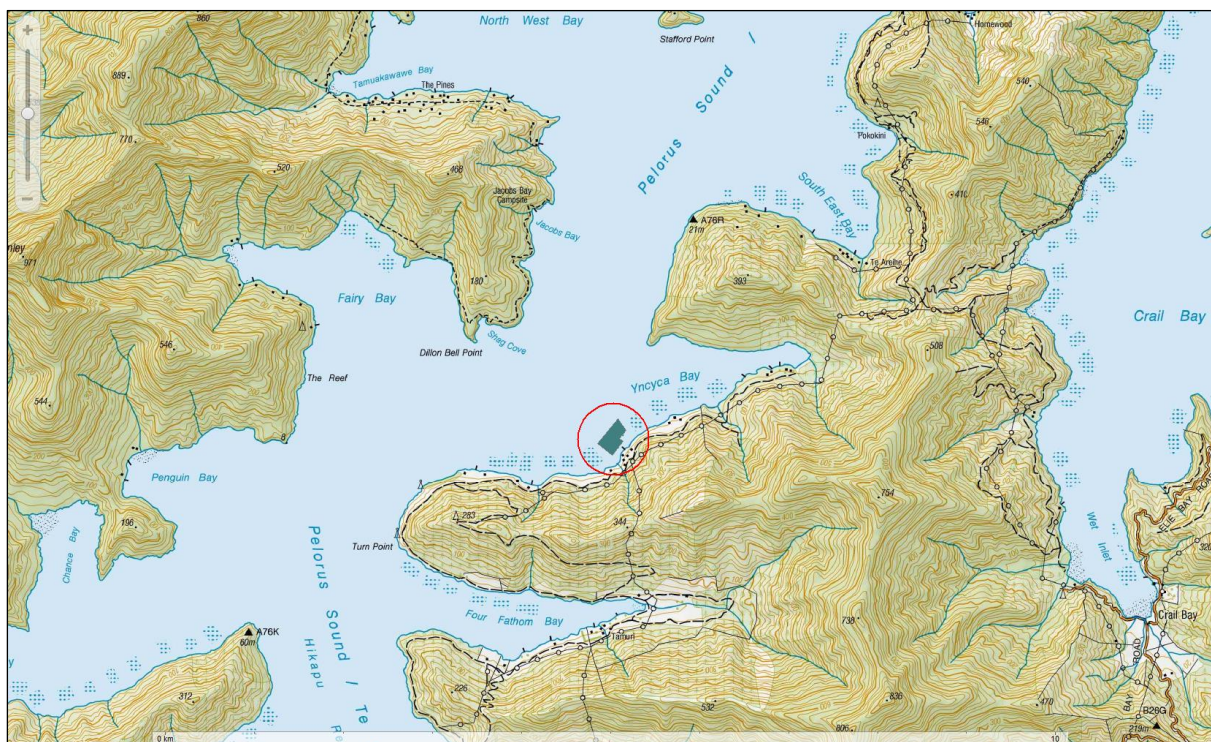


Figure 1. Location of marine farm 8346 in Yncyca Bay (red circle).

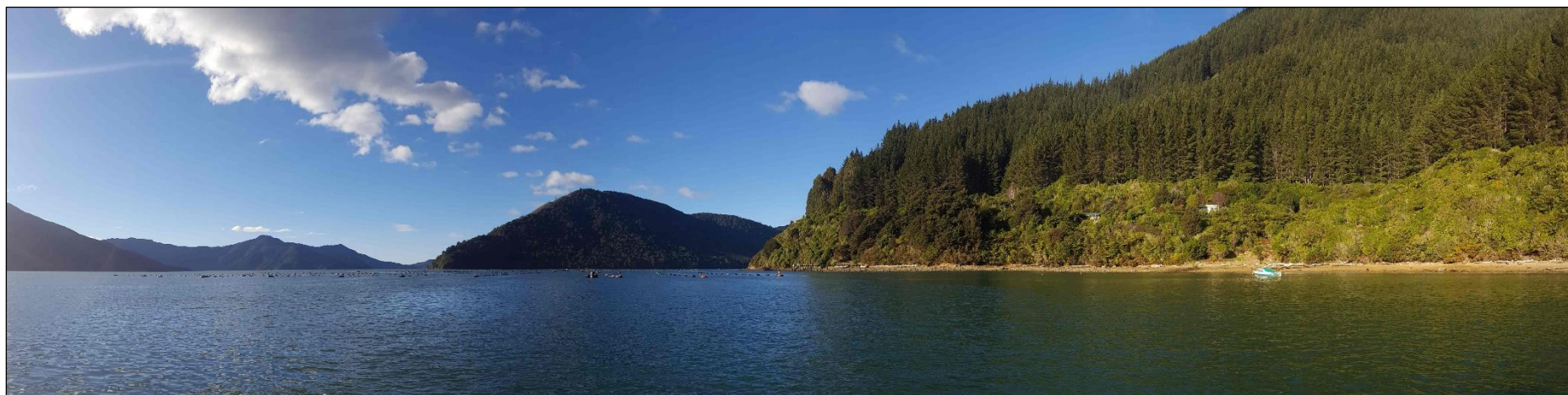


Plate 1. Looking north-eastwards towards the existing lines of farm 8346. Photo taken from a position west and alongshore of the backbones.

2.0 Background information

2.1 Study area

Yncyca Bay is situated on the eastern side of Popure Reach, inner Pelorus Sound. The Bay is approximately 25 km by sea from Havelock. Yncyca Bay has a coastline length of approximately 6.5 km and covers a sea area of approximately 236.8 ha. The mouth of Yncyca Bay is roughly 2.5 km wide (Figure 2).



Figure 2. Location of the consent site in Yncyca Bay (within red circle) and other consented marine farms in the area. CMZ 2 zone in grey.

2.2 Historical reports

A report was produced for a 3.81 ha eastern extension (Brown and Alcock, 2001)

Brown and Adcock (2001) stated:

The seafloor deepened rapidly with increasing distance from the shore. The slope levelled off at a depth of approximately 20 m at a distance approximately 120 m seaward of the high tide line. The site shallowed to a depth of approximately 17 m from about 220 m from shore.

At depths between 2 and 5 m, the substratum was cobble and the most conspicuous organisms were the brown seaweeds *Carpophyllum flexuosum* and *Cystophora torulosa*, tubeworms (*Galeolaria hystrix*), cushion stars (*Patiriella regularis*), and eleven armed starfish (*Coscinasterias muricata*). Spotties (*Notolabrus celidotus*) and blue cod (*Parapercis colias*) were also noted in this depth zone, and a single octopus (*Octopus* sp.) was seen.

Between 5 and 8 m depth, the substratum was composed of cobble/shell/sand and conspicuous organisms noted were eleven armed starfish, cushion stars, saddle squirts (*Cnemidocarpa bicornuata*), and a few sparsely distributed horse mussels (*Atrina zelandica*).

The substratum between 8 and 14 m depth was predominantly sand, with components of shell gravel and mud. Conspicuous species noted in this habitat included cushion stars (*Patiriella regularis*) and sea cucumbers (*Stichopus mollis*). Numerous holes, probably made by polychaete worms or crustaceans, were noted.

From 14 m down to the base of the slope at 20 m depth, the substrate was predominantly shell gravel and whole shell, with a fine sand and mud component. In the upper portion of this zone, the dominant component was dead shells of dog cockles (*Glycymeris laticostata*). In the vicinity of the base of the slope, at depths between 17 and 19 m depth, brachiopods (*Terebratella sanguinea*) were noted at high densities (> 20 per m²).

Seaward of this zone, the seabed was relatively flat and the sediment was composed of soft mud. Numerous holes made by polychaetes or crustaceans were observed and conspicuous species observed included scallops (*Pecten novaezelandiae*) at very low densities

Specialists in research, survey and monitoring

(approximately 0.01 per m²), cushion stars, encrusting sponges, and opalfish (*Hemeroceotes monopterygius*). A diatom mat was also visible in patches on the mud surface.

Brachiopods (*Terebratella sanguinea*) occurred in a distinct zone, and at densities estimated to be 20 per m² or greater, in the vicinity of the inshore boundary of the proposed extension. The brachiopod 'bed' occurred in a band between 17-19 m depth at the base of the subtidal slope along the length of the inshore boundary. Such a feature is considered to be of ecological importance according to the 'Guidelines for ecological investigations of proposed marine farm areas, Marlborough Sounds' (DoC, 1995).

Scallops (*Pecten novaezelandiae*) and horse mussels (*Atrina zelandica*) were observed within the boundaries of the proposed extension but occurred at densities far less than the 'trigger levels' which would activate a more detailed study as stipulated in the DoC guidelines (DoC, 1995).

The authors concluded: "The majority of the extension was situated over a relatively flat seabed composed of soft mud. Brachiopods occurred in a distinct zone and at densities estimated to be 20 per m² or greater in the vicinity of the proposed inshore extension boundary. In order to mitigate potential depositional impacts to the brachiopod bed from the proposed mussel farming activity, it is recommended that the inshore boundary of the proposed extension be shifted 50 m offshore."

3.0 Methods (present survey)

The area was investigated on September 11th, 2017. Prior to fieldwork, the consent corners were plotted onto mapping software (TUMONZ Professional). The laptop running the mapping software was linked to a Lowrance HDS-12 Gen2 with an externally mounted Lowrance Point 1 high sensitivity GPS, allowing real-time plotting of the corners of marine farm surface structures and to pinpoint drop camera stations in the field. This GPS system has a maximum error of +/- 5 m.

The corners of the existing marine farm surface structures were surveyed by positioning the survey vessel immediately adjacent to the corner floats and the position plotted. It should be noted that surface structures can move due to environmental variables such as tidal current

and wind. The plot of surface structures is variable from day to day and over the duration of tidal cycles. These data should not therefore be regarded as a precise measurement of the position of surface structures, but rather an approximate position.

3.1 Sonar imaging

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

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

3.2 Drop camera stations, depths and low tide

A total of 46 drop camera photographs were collected from the farm (including alongside droppers and warps) and adjacent areas outside the consent. At each drop camera station, a Sea Viewer underwater splash camera fixed to an aluminium frame was lowered to the benthos and an oblique still photograph was collected where the frame landed. On occasion, the camera was left to drift after the photograph was collected to observe the wide benthos.

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

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

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

4.0 Results

4.1 Consent corners and surface structures

The inshore corner depths of the consent renewal ranged from 12.5 m to 18.9 m. Offshore boundaries of the consent ranged from 15.9 m to 17.8 m (Table 1, Figure 3). At the time of the survey, existing surface structures consisted of two blocks of backbones occupying a total of 3.43 ha or 53.6% of the 6.39 ha marine farm (Figure 3).

The distance between low tide and the consent boundary was measured at three positions along the adjacent shoreline. The distance to the inshore boundary at low tide position 1 was 34 m and 100 m at position 3 (Plate 2). Position 2 was located northwards and away from the farm

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

Type	No. & Depth (m)	Coordinates
Consent corner	1, 17.7m	1675279.4,5446317.6
Consent corner	2, 18.5m	1675374.7,5446181.6
Consent corner	3, 17.7m	1675301.1,5446092.5
Consent corner	4, 12.5m	1675339.8,5446060.8
Consent corner	5, 13m	1675212.4,5445906.5
Consent corner	6, 15.9m	1675050.6,5446040.1
Structure corner	A, 17.6m	1675271.2,5446282.5
Structure corner	B, 18.6m	1675354.0,5446169.6
Structure corner	C, 18.9m	1675303.6,5446110.0
Structure corner	D, 17.2m	1675198.4,5446184.8
Structure corner	E, 16.6m	1675149.4,5446157.8
Structure corner	F, 16.3m	1675080.9,5446077.3
Structure corner	G, 12.4m	1675237.9,5445939.1
Structure corner	H, 9.5m	1675298.8,5446016.6
Low tide	Low tide 1	1675305.1,5445964.9
Low tide	Low tide 2	1675581.0,5446208.1
Low tide	Low tide 3	1675421.3,5446080.2

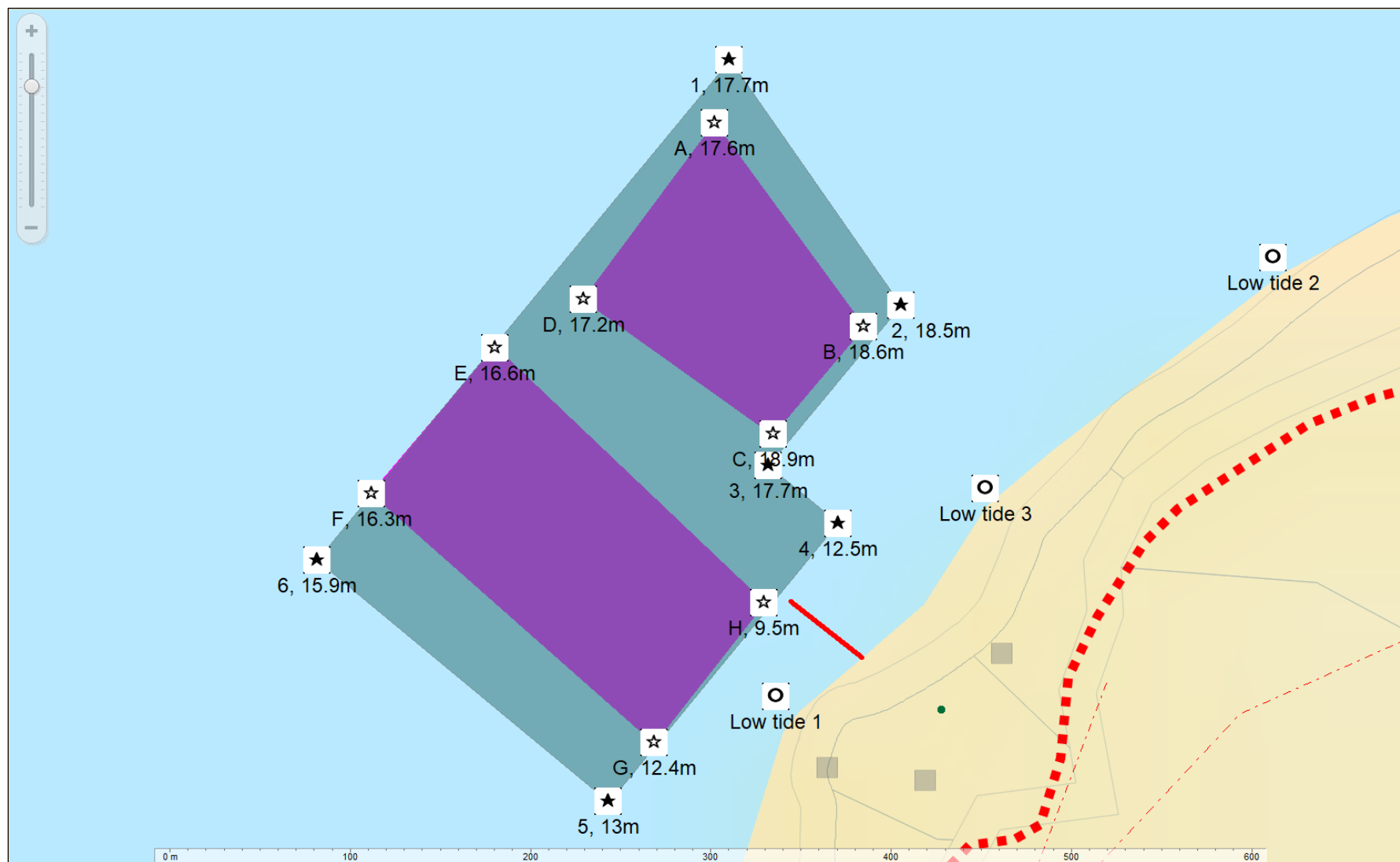


Figure 3. Location of the consent Yncyca Bay (teal), corner depths and area occupied by surface structures (pink). Three low tide positions are plotted.



Plate 2. Consent (yellow) in relation to adjacent coastline.

4.2 Sonar imaging

The sonar run along the inshore areas of the bay revealed rocky substrata within the Consent (Plate 3). Hard substrata were located at the western inshore farm area at two locations under the two inshore backbones. Rocky substrata were found at the eastern end of these backbones as well as a central position. Rocky material did not appear to penetrate further than the second line of the western consent area.

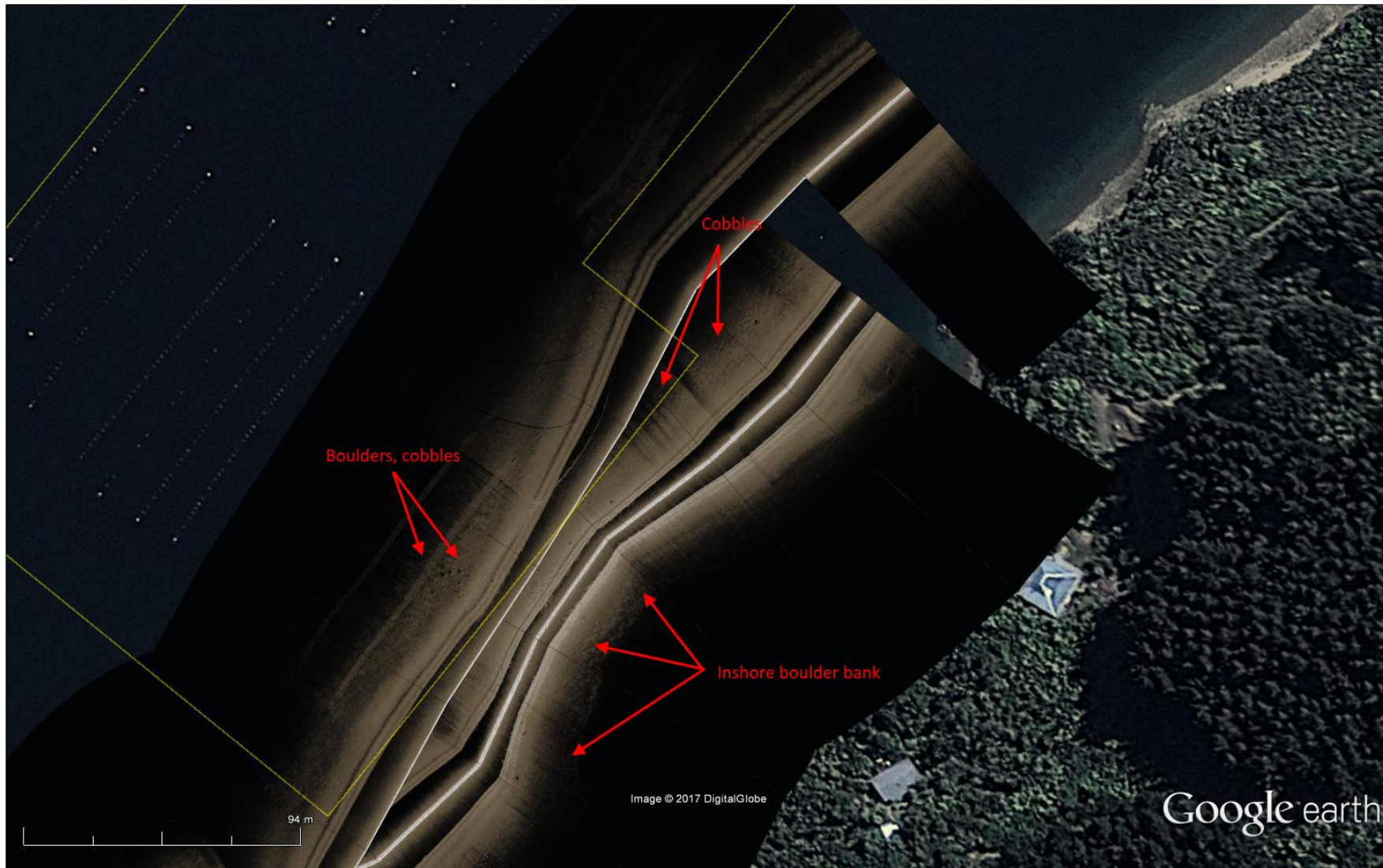


Plate 3. Sonar transects at farm 8346. Yellow polygon = consent boundary, white line = sonar track.

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4.3 Drop camera images

Drop camera photographs were taken within the consent as well as areas offshore and inshore of the consent (Table 2, Figure 4, Appendix 1).

Inshore of the consent and inshore parts of the consent

Boulders and cobble substratum was located around the bay edges (Plate 4). The sonar detected boulders and cobbles extending into the consent (Plate 3). Drop camera images confirmed that rocky substrata penetrated inshore parts of the western consent (Plate 5). Mussel shell debris was recorded from this rocky substratum (Table 2).

Inshore areas of the western consent also supported sorted fine sand/natural shell (Plate 6).

Plate 4. Boulder, cobble, fine sand and natural shell substratum inshore of the consent (Photo 5, 6 m depth).

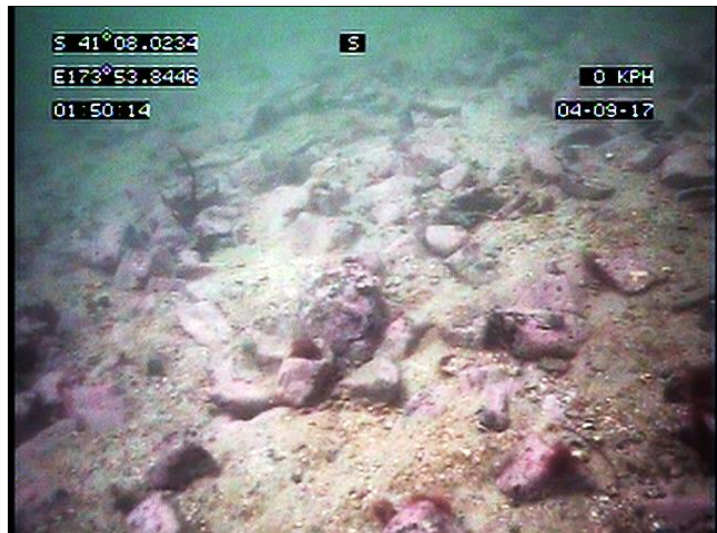


Plate 5. Large boulders and mussel shell located near the second backbone line in the western consent area (Photo 27, 11.7 m depth).



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Plate 6. Sorted fine sand and shell habitat located in the western inshore area of the consent (*Photo 6, 11.2 m depth*)



Consent (excluding inshore western area)

Apart from inshore areas of the western consent, the bulk of the consent was dominated by silt and clay substratum (Plate 7, Table 2). Mussel shell debris was most common close to backbones and mostly inside the consent (Plate 8). Small colonies of red algae, low numbers of parchment worms, an occasional horse mussel and occasional scallops were observed within this area (Table 2).

Plate 7. Silt and clay substratum widespread over most of the consent (*Photo 3, 17.4 m depth*).



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Offshore of the Consent

Photos collected near and offshore of the consent boundary were characterised by featureless silt and clay (Plate 8). Low numbers of parchment worms were also recorded from photos in this area.

Plate 8. Silt and clay offshore of the consent (Photo 44, 16.8 m depth).



Benthic mussels and mussel shell

At several stations live mussels were observed on the seafloor (Plate 9). Mussel shell was observed from a total of 20 of the 39 consent photos (Table 2). Mussel shell debris ranged from none through to a high cover, with highest levels usually recorded under and close to backbones (Table 2, Plate 6).

Plate 9. Silt and natural shell with mussel shell located close to the inshore backbone in the consent (Photo 25, 13.7 m depth).



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

No. & Depth (m)	Coordinates	Location	Structures	Substratum	Shell debris
1, 17.2m	1675378.7,5446157.7	Inshore of consent		Silt and clay, red algae 2%	
2, 18.2m	1675336.1,5446121.8	Inshore of consent		Silt and clay, red algae 2%	
3, 17.4m	1675302.9,5446090.1	In consent		Silt and clay, red algae 2%	
4, 8.3m	1675309.2,5446017.0	Inshore of consent		Cobbles, fine sand, silt, natural shell	
5, 6m	1675324.0,5446011.1	Inshore of consent		Cobbles, fine sand, silt, natural shell	
6, 11.2m	1675325.9,5446050.4	In consent		Fine sand, sorted shell	
7, 14.6m	1675293.5,5446056.9	In consent	Under warps	Silt, fine sand, natural shell	
8, 11.2m	1675288.1,5446022.1	In consent	Under backbones	Fine sand, sorted shell	
9, 9.8m	1675268.1,5445997.8	In consent	Under backbones	Fine sand, sorted shell, mussel shell	High
10, 10.4m	1675253.9,5445975.8	In consent	Under backbones	Fine sand, sorted shell, mussel shell	Low
11, 13.2m	1675228.3,5445946.2	In consent	Under warps	Silt, fine sand, natural and mussel shell	Low-moderate
12, 13.7m	1675205.9,5445916.7	In consent	Under warps	Silt, fine sand, natural shell, red algae 3%	
13, 8.5m	1675287.0,5446005.1	In consent	Under backbones	Fine sand, sorted shell	
14, 7.6m	1675280.1,5445984.6	Inshore of consent		Boulders, cobbles, fine sand, shell	
15, 7.7m	1675273.6,5445985.7	In consent	Under backbones	Boulders, cobbles, fine sand, shell	
16, 7.6m	1675267.8,5445975.4	In consent	Under backbones	Cobbles, fine sand, shell	
17, 9.3m	1675251.9,5445958.0	In consent	Under backbones	Fine sand, sorted shell, red algae 2%	
18, 12.7m	1675236.4,5445935.9	In consent	Under warps	Fine sand, silt, sorted shell, red algae 10%	
19, 11.2m	1675298.9,5446031.4	In consent	Under warps	Fine sand, sorted shell	
20, 10.6m	1675275.6,5446006.5	In consent	Under backbones	Fine sand, sorted shell	
21, 10.2m	1675257.1,5445990.0	In consent	Under backbones	Cobbles, fine sand, shell	
22, 11.5m	1675241.2,5445966.9	In consent	Under backbones	Fine sand, sorted shell, mussels	Low-moderate
23, 12.7m	1675277.4,5446033.0	In consent	Under backbones	Silt, natural and mussel shell, red algae 10%	Low-moderate
24, 12.8m	1675255.2,5446013.7	In consent	Under backbones	Silt, fine sand, mussel shell	Low
25, 13.7m	1675242.9,5445993.4	In consent	Under backbones	Silt, mussel shell	Moderate-high
26, 11.6m	1675252.7,5445988.3	In consent	Under backbones	Fine sand, silt, sorted shell, mussels	Moderate-high
27, 11.7m	1675257.3,5446000.9	In consent	Under backbones	Large boulders, silt, sorted shell, mussel shell	Moderate
28, 15.3m	1675214.3,5445959.6	In consent	Under backbones	Silt, mussel shell, red algae 10%	Moderate-high
29, 18m	1675335.8,5446194.1	In consent	Under backbones	Silt, mussel shell, filamentous red algae	Low
30, 18.1m	1675309.1,5446159.1	In consent	Under backbones	Silt, mussel shell	Low
31, 19m	1675273.7,5446117.9	In consent	Under warps	Silt	
32, 19.2m	1675245.0,5446065.8	In consent	Under backbones	Silt	
33, 19m	1675215.9,5446033.1	In consent	Under backbones	Silt, mussel shell	Low
34, 18.1m	1675187.9,5445988.9	In consent	Under backbones	Silt, mussel shell	Low
35, 18.1m	1675165.1,5445965.2	In consent	Under warps	Silt	
36, 17.7m	1675289.1,5446250.6	In consent	Under backbones	Silt, mussel shell, red algae 2%	Moderate-high
37, 17.4m	1675256.8,5446197.0	In consent	Under backbones	Silt, mussel shell	High
38, 17.4m	1675217.5,5446143.7	In consent	Under warps	Silt	
39, 17.1m	1675169.7,5446110.9	In consent	Under backbones	Silt, mussel shell	Moderate
40, 16.5m	1675127.1,5446055.0	In consent	Under backbones	Silt, mussel shell	High
41, 16.3m	1675107.2,5446026.1	In consent	Under warps	Silt	
42, 17.4m	1675248.2,5446275.5	In consent		Silt	
43, 17.3m	1675213.6,5446229.6	In consent		Silt, mussel shell	Moderate
44, 16.8m	1675154.8,5446173.0	Offshore of consent		Silt	
45, 16.4m	1675123.3,5446125.4	In consent	Under backbones	Silt, mussel shell	High
46, 16.3m	1675093.6,5446106.8	Offshore of consent		Silt, mussel shell, parchment worms 3%	Low

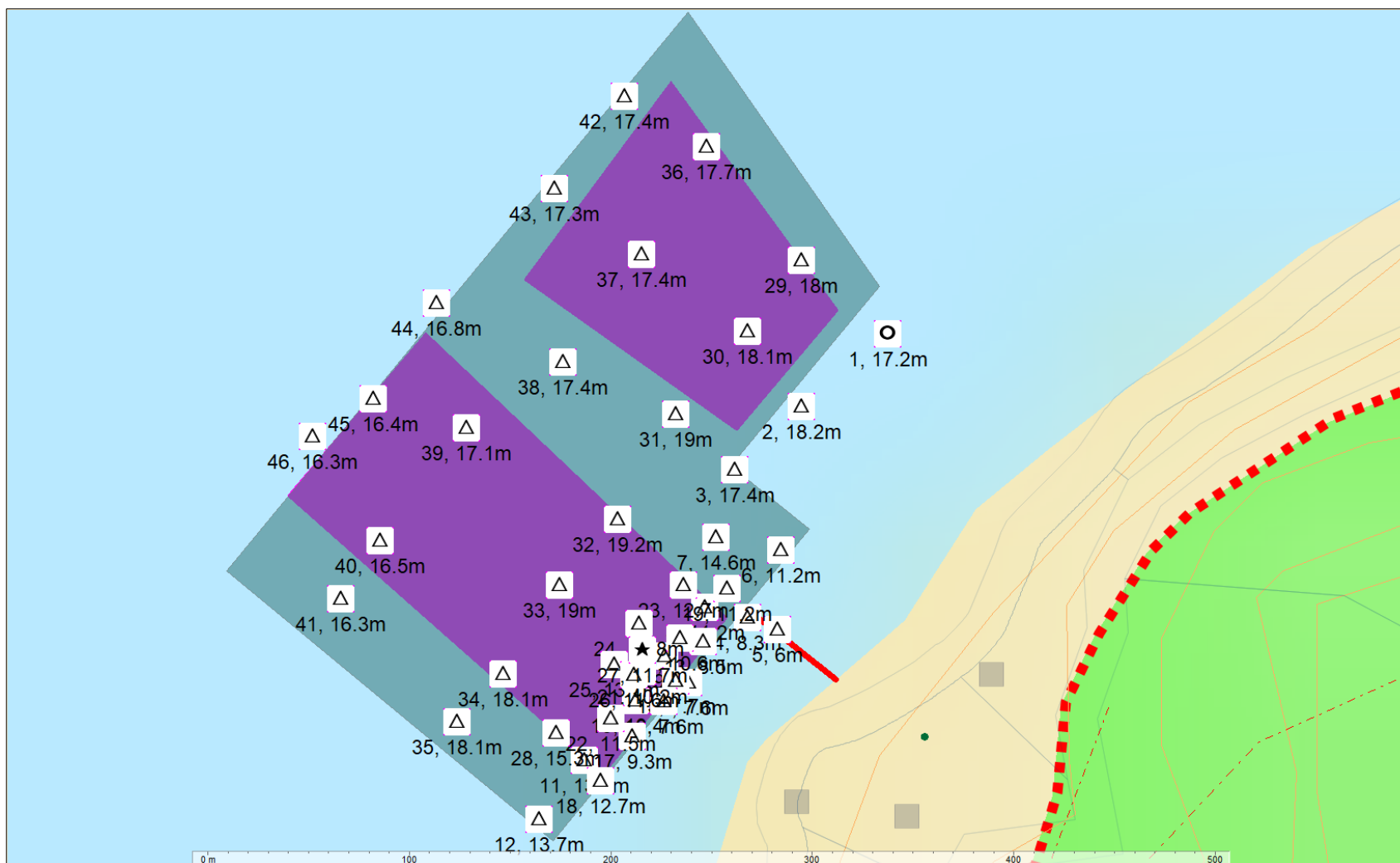


Figure 4a. Location of the consent in Yncyca Bay (teal) and drop camera stations with depth (m).

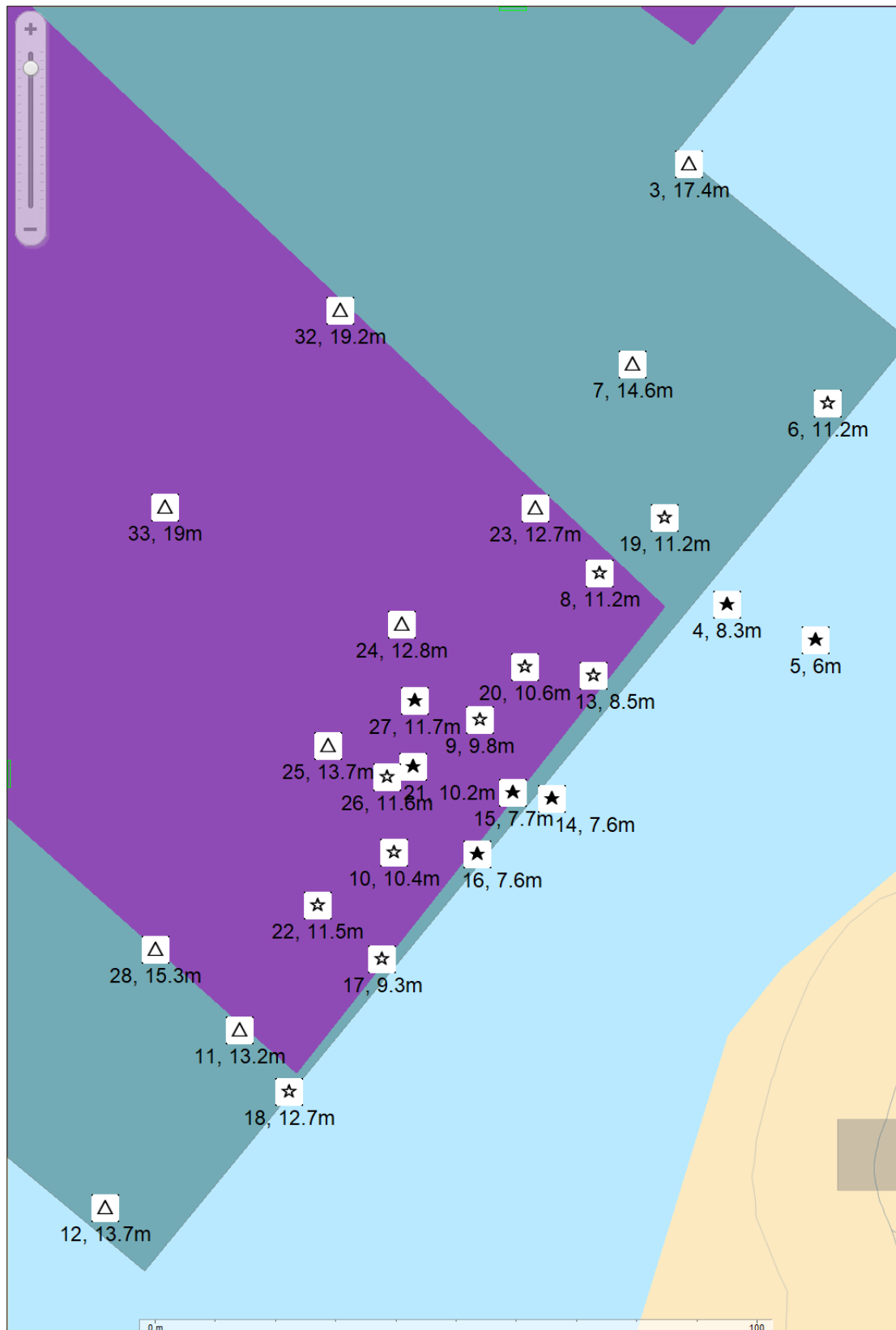


Figure 4b. Inshore area of western consent (teal) and drop camera stations with depth (m). Black stars = rocky substrata, open stars = sorted fine sand/shell substrata.

4.4 Flora and fauna

Based on photographs, the inshore rocky substrata supported the greatest variety of surface dwelling species, followed by coarse fine substrata and finally offshore silt and clay (mud). Red algae reached 10% cover at two locations immediately adjacent to, or at the edge of backbone areas. It is possible this algae benefits from nutrients excreted by mussels. Parchment worms were present but were never common or abundant. Occasional horse mussels and scallops were observed from within the consent. Horse mussels were not observed in numbers that would constitute a bed. At stations located along the inshore edges of the western consent numerous small holes in the substratum were observed. These are likely snapping or ghost shrimps. It is possible lancelet may also be present in this coarse substratum.

5.0 Conclusions

5.1 Benthic habitats

Substratum and habitat distribution relative to the consent was based on 46 drop camera stations and sonar imaging of the benthos.

Most of the consent area was located over silt and clay substratum (i.e. mud). This substratum is the most common subtidal habitat in the sheltered Marlborough Sounds (McKnight and Grange, 1991) and has been traditionally targeted for marine farming activities as it is considered the most suitable habitat for marine farming activities in the Marlborough Sounds.

The inshore edge of the western consent supported coarser fine substratum as well areas supporting rocky substratum. Unlike mud and mud and shell, rocky substratum is not traditionally considered suitable for marine farming activities as it is vulnerable to smothering by shell and fine sediment and would likely no longer function as a hard substratum habitat. Further, hard substratum is usually restricted to a narrow strip around the edges of the Marlborough Sounds.

5.2 Species and communities

Surface dwelling species abundance and diversity appeared highest from inshore areas of the western consent where cobbles and coarser substratum were located. Occasional clumps of red algae were observed, but these seldom reached 10% cover. Some macroalgae were observed and these likely originated from the growing structures.

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

5.3 Significant site

No significant sites are known from Yncyca Bay (Davidson *et al.*, 2011).

5.4 Mussel farming impacts

5.4.1 Benthic impacts

Live and shell from dead mussels were observed on the seafloor under the consent. Mussel shell was observed from a total of 20 of the 39 consent photos collected. Mussel shell debris ranged from none through to high cover, with highest levels usually recorded under and close to backbones. Shell debris impact levels were within the range known for mussel farms in the Marlborough Sounds and towards the mid to high impact range compared to other farms in the Sounds. Impact levels from mussel shell along the western inshore edge were lower than observed from offshore areas of the consent.

It is probable that the impact of continued shellfish farming at this site will result in the deposition of more shell and fine sediment under and near droppers. It is noted, that much of this material is processed by bioturbators in the environment, while a proportion is resuspended during storm events and larger tides. Based on the literature and assuming the present level of activity remains relatively consistent, it is very unlikely that the surface sediments would become anoxic, especially as the site is shallow (<10 m depth) (Hartstein and Rowden, 2004; Keeley *et al.*, 2009; Davidson and Richards, 2014).

5.4.2 Productivity

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

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

Observed tidal flows along inshore parts of the consent were moderate, while flows over the wider consent were slower. Broekhuizen *et al.*, (2015) shows the flows are expected to be around 0.1m/s; however, based on observations, currents around the bay edge may be stronger (author pers. obs.). Winds are also likely to be an important driver of water movement in this area, especially during the predominant north-westerly flows.

Yncyca Bay is a relatively open bay and is very close to the main channel of Pelorus Sound. It is therefore likely that water residence times are short compared to bays further distant where turnover times are often multiple days (e.g. Hallam Cove).

Based on these considerations it is probable the site is not subjected to high phytoplankton depletion issues.

5.5 Boundary adjustments, recommendations and monitoring

For most of the consent, no biological values were detected that would preclude the continuation of mussel farming. The substratum under most of the consent is mud and is the most common and widespread habitat type in sheltered shores of the Marlborough Sounds. The impacts associated with mussel farming on muddy habitats characterised by

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silt, clay and natural shell are usually low compared to farm impacts in shallow areas where habitats may be dominated by rocky or biogenic communities.

The inshore edge of the western consent was characterised by combinations of silt, fine sand, natural shell, boulders and cobbles. These habitats are generally considered unsuitable for marine farming activities as they are uncommon habitats in the Sounds and would likely be altered by the activity of mussel farming. It is therefore suggested that the 35m wide inshore edge of the western consent be excluded from shellfish farming activities. Farming of low impact species such as algae could be considered for this area. Based on the substratum located under remaining farm and based on the impact levels of the existing activity, no monitoring is suggested.

Based on existing data, the area located offshore of the consent supports a habitat suitable for consideration for farming activities.

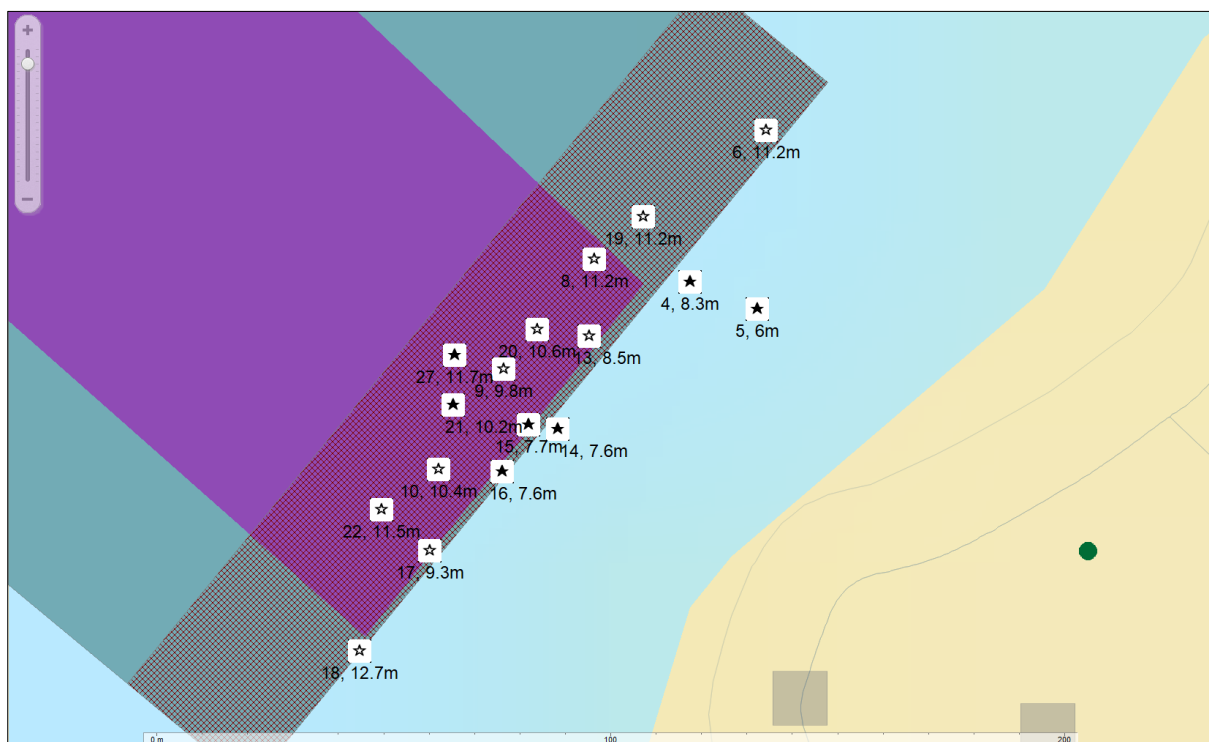


Figure 5. Suggested 35 m wide shellfish farming exclusion area (red hatched) and location of drop camera images with rock substrata (black stars) or sorted fine sand/shell (open stars).

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Appendix 1. Drop camera photographs

Photo site 1



Photo site 2



Photo site 3



Photo site 4



Photo site 5

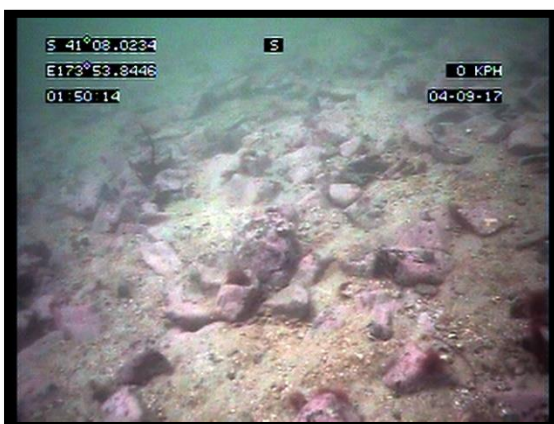


Photo site 6



Photo site 7



Photo site 8



Photo site 9



Photo site 10



Photo site 11



Photo site 12



Photo site 13

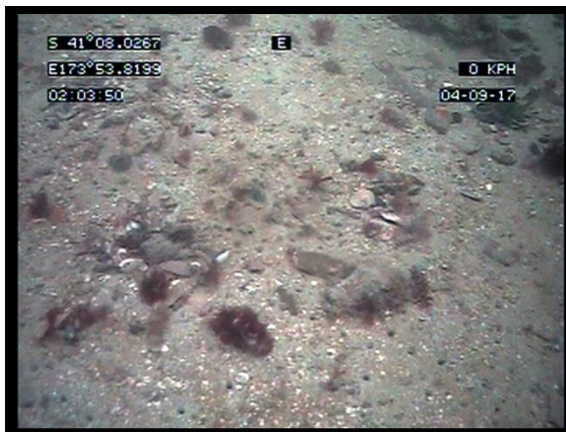


Photo site 14



Photo site 15

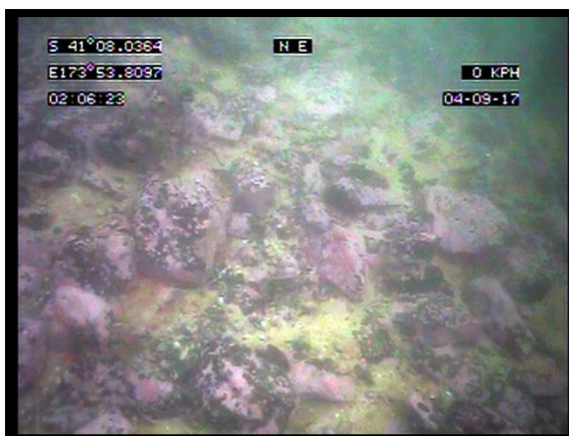


Photo site 16



Photo site 17



Photo site 18

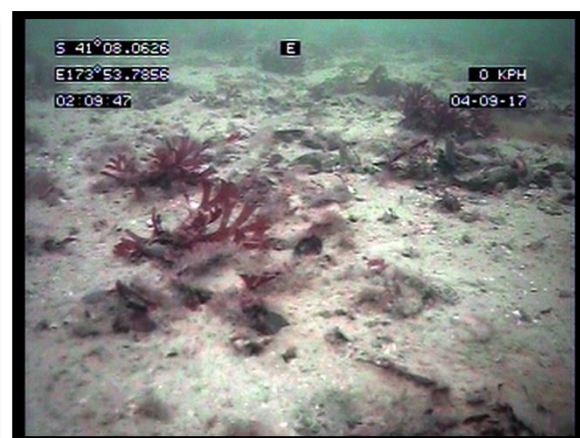


Photo site 19



Photo 20



Photo site 21



Photo 22



Photo site 23



Photo 24



Photo site 25



Photo 26



Photo site 27



Photo 28

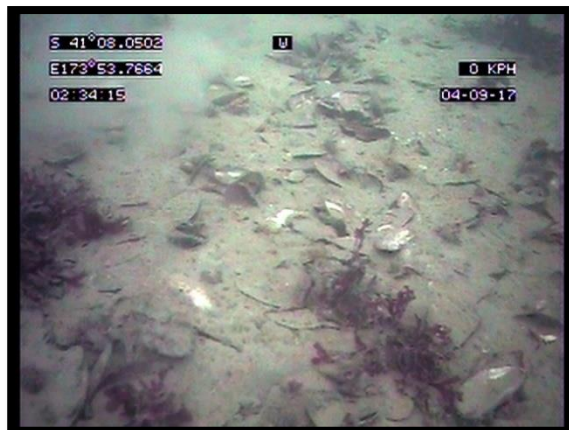


Photo site 29



Photo 30



Photo site 31



Photo 32



Photo site 33



Photo 34



Photo site 35

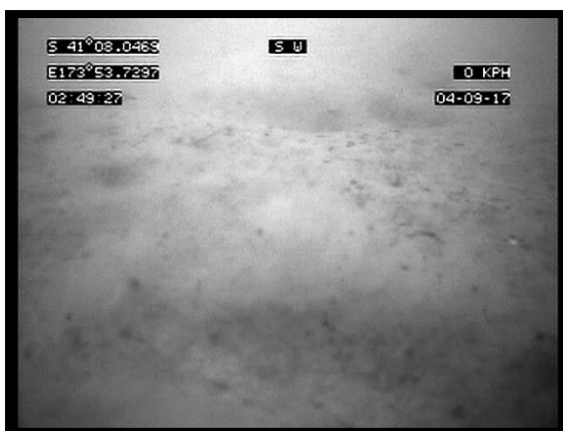


Photo 36



Photo site 37



Photo 38



Photo site 39



Photo 40



Photo site 41



Photo 42



Photo site 43



Photo 44



Photo site 45



Photo 46

