

10 October 2016

Marlborough District Council
PO Box 443
BLENHEIM 7240

Re: **Marlborough Aquaculture Limited – Application for Coastal Permit**

We act for the abovenamed.

We attach the following:

1. Application
2. Assessment of Effects on the Environment
3. Locality Map
4. Site Plan
5. Structures Diagram
6. Ecological Report
7. Application fee \$945.00.

Please acknowledge receipt.

Yours faithfully

WISHEART MACNAB & PARTNERS


.....
DJ Clark
david@wmp.co.nz

Encl



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Resource Consent Application

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



**MARLBOROUGH
DISTRICT COUNCIL**

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

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

You may apply for more than one consent that is needed to cover several aspects of the activity on this form.

For Office Use

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RAF0002-CI1579

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Receipt No.

Consent No.

Case Officer:

Date Received:

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

Name:
(full legal name)

Marlborough Aquaculture Limited

Mailing Address:
(including post code)

PO Box 860, Blenheim 7240

Email Address:

Phone: (Daytime)

Phone: (Mobile)

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

Name:

David Julian Clark

Mailing Address:
(including post code)

PO Box 138, Blenheim 7240

Email Address: david@wmp.co.nz

Phone: (Daytime) 5787269

Phone: (Mobile)

3. Type of Resource Consent Applied For

☒ Coastal Permit ☐ Discharge Permit ☐ Land Use ☐ Subdivision ☐ Water Permit

4. Brief Description of the Activity

To extend existing Marine Farm Licence 8061 including the area previously granted (U991322) and including the area seaward of both sites to enable the cultivation of greenshell mussels (*perna canaliculus*) and blue mussels (*mytilus edulis*) using standard surface longline techniques and to disturb the seabed with anchors, to erect structures, to occupy the space, to cultivate and harvest the above species including any ancillary and related discharges that occur.

5. Supplementary Information Provided?

☐ Yes ☐ No

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

6. Property Details

The location to which the application relates is (address): Blowhole Point, Pelorus Sound

Legal description (i.e. Lot 1 DP 1234): Not applicable

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

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

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

Crown - seabed

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

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

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

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

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



8. Other Information

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

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

9. Fees

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

10. Declaration

I (please print name) David Julian Clark

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

Signature of applicant or authorised agent: 

Date: 10 October 2016

Privacy Information

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

Reset Form



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Schedule Four

Resource Management Act 1991

Information Required in Application for Resource Consent

1 Information must be specified in sufficient detail

Any information required by this schedule, including an assessment under clause 2(1)(f) or (g), must be specified in sufficient detail to satisfy the purpose for which it is required.

2 Information required in all applications

- (1) An application for a resource consent for an activity (the **activity**) must include the following:
- (a) a description of the activity;
 - (b) a description of the site at which the activity is to occur;
 - (c) the full name and address of each owner or occupier of the site;
 - (d) a description of any other activities that are part of the proposal to which the application relates;
 - (e) a description of any other resource consents required for the proposal to which the application relates;
 - (f) an assessment of the activity against the matters set out in Part 2;
 - (g) an assessment of the activity against any relevant provisions of a document referred to in section 104(1)(b).
- (2) The assessment under subclause (1)(g) must include an assessment of the activity against—
- (a) any relevant objectives, policies, or rules in a document; and
 - (b) any relevant requirements, conditions, or permissions in any rules in a document; and
 - (c) any other relevant requirements in a document (for example, in a national environmental standard or other regulations).
- (3) An application must also include an assessment of the activity's effects on the environment that—
- (a) includes the information required by clause 6; and
 - (b) addresses the matters specified in clause 7; and
 - (c) includes such detail as corresponds with the scale and significance of the effects that the activity may have on the environment.

3 Additional information required in some applications

An application must also include any of the following that apply:

- (a) if any permitted activity is part of the proposal to which the application relates, a description of the permitted activity that demonstrates that it complies with the requirements, conditions, and permissions for the permitted activity (so that a resource consent is not required for that activity under section 87A(1));
- (b) if the application is affected by section 124 or 165ZH(1)(c) (which relate to existing resource consents), an assessment of the value of the investment of the existing consent holder (for the purposes of section 104(2A));
- (c) if the activity is to occur in an area within the scope of a planning document prepared by a customary marine title group under section 85 of the Marine and Coastal Area (Takutai Moana) Act 2011, an assessment of the activity against any resource management matters set out in that planning document (for the purposes of section 104(2B)).

4 Additional information required in application for subdivision consent

An application for a subdivision consent must also include information that adequately defines the following:

- (a) the position of all new boundaries;
- (b) the areas of all new allotments, unless the subdivision involves a cross lease, company lease, or unit plan;
- (c) the locations and areas of new reserves to be created, including any esplanade reserves and esplanade strips;
- (d) the locations and areas of any existing esplanade reserves, esplanade strips, and access strips;
- (e) the locations and areas of any part of the bed of a river or lake to be vested in a territorial authority under section 237A;
- (f) the locations and areas of any land within the coastal marine area (which is to become part of the common marine and coastal area under section 237A);
- (g) the locations and areas of land to be set aside as new roads.



5 Additional information required in application for reclamation

An application for a resource consent for reclamation must also include information to show the area to be reclaimed, including the following:

- (a) the location of the area;
- (b) if practicable, the position of all new boundaries;
- (c) any part of the area to be set aside as an esplanade reserve or esplanade strip.

Assessment of environmental effects

6 Information required in assessment of environmental effects

- (1) An assessment of the activity's effects on the environment must include the following information:
 - (a) if it is likely that the activity will result in any significant adverse effect on the environment, a description of any possible alternative locations or methods for undertaking the activity;
 - (b) an assessment of the actual or potential effect on the environment of the activity;
 - (c) if the activity includes the use of hazardous substances and installations, an assessment of any risks to the environment that are likely to arise from such use;
 - (d) if the activity includes the discharge of any contaminant, a description of—
 - (i) the nature of the discharge and the sensitivity of the receiving environment to adverse effects; and
 - (ii) any possible alternative methods of discharge, including discharge into any other receiving environment;
 - (e) a description of the mitigation measures (including safeguards and contingency plans where relevant) to be undertaken to help prevent or reduce the actual or potential effect;
 - (f) identification of the persons affected by the activity, any consultation undertaken, and any response to the views of any person consulted;
 - (g) if the scale and significance of the activity's effects are such that monitoring is required, a description of how and by whom the effects will be monitored if the activity is approved;
 - (h) if the activity will, or is likely to, have adverse effects that are more than minor on the exercise of a protected customary right, a description of possible alternative locations or methods for the exercise of the activity (unless written approval for the activity is given by the protected customary rights group).
- (2) A requirement to include information in the assessment of environmental effects is subject to the provisions of any policy statement or plan.
- (3) To avoid doubt, subclause (1)(f) obliges an applicant to report as to the persons identified as being affected by the proposal, but does not—
 - (a) oblige the applicant to consult any person; or
 - (b) create any ground for expecting that the applicant will consult any person.

7 Matters that must be addressed by assessment of environmental effects

- (1) An assessment of the activity's effects on the environment must address the following matters:
 - (a) any effect on those in the neighbourhood and, where relevant, the wider community, including any social, economic, or cultural effects;
 - (b) any physical effect on the locality, including any landscape and visual effects;
 - (c) any effect on ecosystems, including effects on plants or animals and any physical disturbance of habitats in the vicinity;
 - (d) any effect on natural and physical resources having aesthetic, recreational, scientific, historical, spiritual, or cultural value, or other special value, for present or future generations;
 - (e) any discharge of contaminants into the environment, including any unreasonable emission of noise, and options for the treatment and disposal of contaminants;
 - (f) any risk to the neighbourhood, the wider community, or the environment through natural hazards or the use of hazardous substances or hazardous installations.
- (2) The requirement to address a matter in the assessment of environmental effects is subject to the provisions of any policy statement or plan.





Section 88

Resource Management Act 1991

Making an Application

88 Making an application

- (1) A person may apply to the relevant consent authority for a resource consent.
- (2) An application must—
 - (a) be made in the prescribed form and manner; and
 - (b) include the information relating to the activity, including an assessment of the activity's effects on the environment, as required by Schedule 4.
- (2A) An application for a coastal permit to undertake an aquaculture activity must include a copy for the Ministry of Fisheries.
- (3) A consent authority may, within 10 working days after an application was first lodged, determine that the application is incomplete if the application does not—
 - (a) include the information prescribed by regulations; or
 - (b) include the information required by Schedule 4.
- (3A) The consent authority must immediately return an incomplete application to the applicant, with written reasons for the determination.
- (4) If, after an application has been returned as incomplete, that application is lodged again with the consent authority, that application is to be treated as a new application.
- (5) Sections 357 to 358 apply to a determination that an application is incomplete.



RESOURCE MANAGEMENT ACT 1991

Schedule 4

Information required in application for resource consent

1. Information required in all applications

- (1) An application for resource consent for an activity ("the activity") must include the following:

(a) *A description of the activity:*

To extend existing Marine Farm Licence 8061 (U140915) including the area previously granted (U991322) and including the area seaward of both sites to enable the cultivation of greenshell mussels (*perna canaliculus*) and blue mussels (*mytilus edulis*) using standard surface longline techniques and to disturb the seabed with anchors, to erect the structures, to occupy the space, to cultivate and harvest the above species including any ancillary and related discharges that occur.

Resource Consent U140195 was granted by Council on 21 January 2015.

Resource Consent U991322 was granted by Council on 1 October 2001.

Coastal Permits Required

The Application is for Coastal Permits to authorise:

- (a) The occupation of part of the Coastal Marine Area ("CMA").
- (b) The erection and placement of structures.
- (c) Any necessary disturbance of the seabed.
- (d) The incidental deposition of shell material and other natural material as a consequence of the operation of the marine farm.

The location, permit area, all structures that are intended to be used are all set out in:

- Locality Map - **Attachment 1.**
- Plan of proposed coastal permit **Attachment 2.**
- Structure layout diagram – **Attachment 3.**

Accompanying the Application is a report "*Biological Report for a New Marine Farm Application near Blowhole Point, Pelorus Sound*" prepared by Davidson Environmental Limited.



The Applicant

The Applicant is Marlborough Aquaculture Limited a locally based marine farming company operating since the mid 1990's principally in the Marlborough Sounds.

Product from the farm will be processed at Blenheim at Talleys factory.

The method of proposed activity is by standard longline method.

The species proposed to be farmed in the extended area are the same that are in the existing Marine Farm and they are naturally to be found in the area. There will be no introduced species and no introduced feed.

History of Marine Farming at Subject Site

Marine farming in Pelorus Sound generally is a long established activity.

There are four existing marine farms in immediate proximity of Blowhole Point.

- (a) Marine Farm No. 8058 in the Bay to the north granted by Environment Court Consent Order – 3 May 1999
- (b) Marine Farm No. 8059 originally granted in 2008 and extended in 2013 (U130080)
- (c) Marine Farm No. 8060 originally granted Resource Consent by Environment Court Consent Order – 3 May 1999
- (d) The existing Marine Farm No 8061 which was originally granted consent by Environment Court Consent Order on 3 May 1999 (U050403), extended by Decision dated 1 October 2001 (U991322) and then the current farm granted consent on 21 January 2015 (U140195).

Activity Status

There is a discrete area of Coastal Marine Zone Two (CMZ2) under the Marlborough Sounds Resource Management Plan (MSRMP) which surrounds the Application for extension. The Application for extension goes up to but does not exceed the CMZ2 zoned area. Because it in parts exceeds 200 metres from mean low water mark the activity status is *non-complying* under Rule 35.5.

(b) *A description of the site at which the activity is to occur:*

Marine Farming near Blowhole Point can trace its origins back to the late 1990's. Marine Farming in the Outer Pelorus Sound can be traced back to the 1980's.

Neither the Bay to the north or to the south of Blowhole Point has any name on any topographical map or chart.

Neither embayment is inhabited. Blowhole Point itself is all planted in commercial pinus radiata. The land surrounding the commercial forest is farm land with some areas of regenerating scrub. There are no buildings in either embayment. The land is privately owned and there is no public access from any road.

The adjoining land is zoned Rural.



The proposed extension is all contained within the envelope of CMZ2 zoned water space. MSRMP envisages marine farming to occur at the subject site.

The adjoining land has no special protection under MSRMP.

While the land from Paparoa to Clay Point is identified as being an Area of Outstanding Landscape Value (AOLV) in MSRMP neither of the embayments either side of Blowhole Point have any such protection.

(c) *The full name and address of each owner:*

The land is owned by MC, AP & FR Pengelly.

The existing Marine Farm in the bay is owned by the Applicant.

The owners of the marine farms in the Bay to the north are:

- (a) Marine Farm site 8058 – Sanford Limited
- (b) Marine Farm site 8059 – Talleys Group Limited
- (c) Marine Farm site 8060 – Sanford Limited

(d) *A description of other activities that are part of the proposal to which the application relates:*

Not applicable.

(e) *A description of any other resource consents required:*

Not applicable.

(f) *An assessment of the activities against matters set out in Part 2:*

Section 5 – Purpose

The Application does achieve the overarching purpose of the RMA in that it enables the provision of social economic and cultural wellbeing while achieving sustainable management of resources, safe guarding the life supporting capacity of water and avoiding remedying or mitigating adverse effects of the activity on the environment.

Section 6 – Matters of National Importance

The proposal does not envisage any further or different development than that which was originally granted approval for or for an activity other than is envisaged by MSRMP. Natural character of the coastal marine area will be preserved and protected from inappropriate use and development.

There are no identified outstanding natural features and landscapes at the subject site.

There is no significant indigenous vegetation or significant habitat of indigenous fauna at the subject site. It is not within the area identified for marine mammal protection in the proposed Marlborough Environment Plan (MEP). While there is a colony of King Shags at Duffers Reef the Applicant is not aware of recordings of utilisation of King Shag in the area of the proposed extension. During the time of occupation no King Shags have been seen or observed at the site. The Application site is mainly offshore of the existing farm and in deep water. It is also in an area which is subjected to high current



and it is accordingly anticipated that for those reasons it is not considered a suitable habitat for King Shag.

The marine farm does not exclude public access. People in vessels can enter into and tie up to the structures within the marine farm. As marine farming has become more understood and accepted by the boating public skippers are aware that they can utilise the area. There are no buildings in either the bay to the north or south of blowhole Point. There is no occupation and utilisation of either embayments other than the existing commercial forestry and the farming on the adjoining land.

In "*New Zealand Cruising Guide – Central Area*" by Murray and Von Kohorn no anchorage is identified or referred to in either embayment. There are no moorings in either embayment. Nevertheless any vessel that does wish to enter into the embayment is not precluded from doing so by the extension of the proposed farm. There is no jetty or specific landing area nor is there a log loading site within the embayment.

During the various earlier Application for consent no particular wahi tapu or other taonga has been either identified or is there indication that there would be any adverse effect upon by the proposed extension of the marine farm.

There is no known historic or heritage place at or near the site of the extension which needs protection.

As fishing can still occur within the site and around the site, protected customary rights are not seen to be affected.

Section 7 – Other Matters

Only those matters in section 7 that are relevant are addressed in this assessment. The proposal consists of the farming of a native species of shellfish which is found in the area. There is nothing added to the water column and the shellfish rely solely on nutrients in the water column. The activity is an efficient use and development of natural and physical resources. Marine Farming around Blowhole Point has been undertaken for more than 15 years. The Application is to extend the existing Marine Farm. It is not introducing a new element into the embayment which is not already present. Amenity values will not be significantly diminished by the granting of consent. None of the intrinsic values of the ecosystems that are present at the subject site will be adversely affected and the quality of the environment will not be diminished. While nutrients in the water column are a finite resource, in the assessment of the attached report activity is both sustainable and will not reduce the nutrients in anything more than in a minor way.

Section 8 – the Treaty of Waitangi

The allocation of water space for aquaculture in the CMA and Crown obligations under the Treaty are dealt with by Fisheries legislation.

- (2) Assessment of the activity against Objectives Policies Rules in any relevant planning document

Status of the Activity under MSRMP



As identified above the proposed activity is a *non-complying* activity under MSRMP by virtue of Rule 35.5.

In order for a *non-complying* activity to be granted consent the Application has to satisfy s104D of the Resource Management Act (RMA). In other words the Application in order to be granted consent on the merits must pass through one of the gateway thresholds in s104D of the RMA. That means the Application either has to have adverse effects which would be minor or the Application is for an activity that will not be contrary to the objectives and policies of the relevant Plan (here the MSRMP). While there is a new Plan which has been notified Proposed Marlborough Environment Plan (MEP) the activity of marine farming was expressly exempted from the Plan and therefore there are no policies and objectives which relate to the activity in MEP. Hence the need to only address MSRMP in relation to this particular gateway. In any event as MEP has not yet completed the submission phase there is little weight to be accorded to anything in the MEP at this stage.

While the MSRMP does not give express assessment criteria for *non-complying* activity for marine farming there are express assessment criteria for marine farming inside the 200 metre mark from mean low water mark. It is therefore useful to consider those headings of effects when determining whether or not the adverse effects of the proposed activity will be minor.

Assessment of effect on present nature of the site including the nature of the seafloor and species found in the area

The report of Davidson Environmental confirms that the extensions of the marine farm are not over high value seafloor or any trigger species. Particularly in the offshore area the proposed activity is over muddy bottom with no recognised species that are needed to be protected. Further the area has significant tidal currents (as it is at the mouth of the Pelorus) leading to a dispersal effect, that also makes this proposed site a very productive one. Growth rates on the existing farm are exceptional and the Applicant considers that this farm will be amongst the very best marine farm in the Marlborough Sounds, if not the best.

Effect on marine ecology of feed proposed to be added

Not applicable

Consideration of navigational matters

- a) *The shoreline*
The proposed marine farm is set back from the usual 50 metre distance from mean low water mark meaning that any vessel wishing to transit the inshore area is able to do so with comfort.
- b) *Adjacent marine farms*
There are no adjacent marine farms within the embayment.
- c) *Log loading sites and other points of access to the shore*
There are no jetties, log loading sites or other points of access to the shore in this embayment.
- d) *Headlands*



The extension is generally in a south western direction away from Blowhole Point. Whether or not Blowhole Point is considered to be a headland because the expansion is away from it on the other side of the existing marine farming this matter is not considered to be an issue.

e) Navigational routes

The proposed extension sits within the envelope of CMZ2 zone as provided for in MSRMP. The outer line of that envelope is a line between Te Akaroa (West Entry Point) and Blowhole Point. Vessels transiting this area would stand off both points and therefore the marine farming lies well within the true and proper course between the two points. It is not therefore within a navigation route and is sufficiently set back from it to not pose any risk to navigating vessels.

f) Anchorages and mooring areas

There are no known anchorages in the area. There are no moorings in the embayment. There are Club moorings in Port Ligar and elsewhere in the Outer Sounds but nothing near the subject site which is probably a recognition of the more exposed nature of the coastline there.

g) Water ski lane

There is no water ski lane in the area.

h) Sub-aqueous cables

There are no sub-aqueous cables in the area.

Consideration of aesthetic and cultural matters

a) Proximity to residences, land zoned for residential use and land subdivided for residential use.

There is no residence, land zoned for residential use or land subdivided for residential use anywhere near Blowhole Point.

b) Proximity and likely effect on scenic value

There are existing marine farms around Blowhole Point. The proposal is to extend the existing marine farm in the embayment south of Blowhole Point in an area where MSRMP has provided an envelope for that development. There is no area of specific scenic value identified in MSRMP in that area.

c) Ecological value

There is a special ecological value site in Harris Bay and at Oke Rock but they are some distance to the north and will not be affected by the proposed extension.

d) Recreational value

The Applicant does not believe there is any particular use of the embayment to the south of Blowhole Point. It is not recognised as having any special attraction on any maps, charts or in the MSRMP.

e) Historic or traditional importance

Likewise the Applicant is not aware of any historic or traditional importance of the proposed extension site nor is it recognised as such in the MSRMP.

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Other matters

- a) *Likely effect on areas used for commercial and recreational fishing*
The extension is largely on the offshore from the existing farm. That area is not used for commercial or recreational fishing and therefore the proposed extension is not seen as having any adverse effect.
- b) *The visual effect of the farm and its operation*
There are marine farms in this area. The proposed extension will increase the existing farm's seaward and south westerly direction. The only viewing platform that the proposed site can be seen from is on a transiting vessel that is coming into or leaving the Pelorus Sound. Vessels doing that will always have to pass the bay to the north where there are marine farms as well. The embayment to the south of Blowhole Point is tucked in under the lee of a high hill and is out of the way. Accordingly the proposed extension will have little effect visually on those that use the area.
- c) *The likely effects on water quality and ecology*
The area under the proposed extension is largely dominated by a muddy bottom. The likely effects of the marine farm extension are particularly considered by the report of Davidson Environmental. It is not considered that there will be anything other than a minor adverse effect.
- d) *The alienation of public space*
Marine farms in the Pelorus Sound in reality do not alienate the public anymore. They have now been part of the Pelorus Sound for so long that anybody who uses that area will know that they can enter a mussel farm and fish within it without any concerns and indeed it is considered being able to tie up to a mussel farm is beneficial. While theoretically the occupation of public space can be said to be alienation, in practical terms that is not the case for the proposed extension.
- e) *The extent to which the marine farm requires ancillary onshore facilities*
This is not considered to be relevant. The Applicant's base for that part of its marine farming operation in the Pelorus is at Havelock.

Policies and Objectives - MSRMP

The relevant policies and objectives for the MSRMP relating to the proposed activity are to be found in Chapter 9 Coastal Marine and the relevant policies and objectives are discussed in the following paragraphs.

- a) *Policy and Objectives 9.2.1*
This objective is directed to the accommodation of appropriate activities in the coastal marine area while avoiding, remedying or mitigating the adverse effects of those activities. The underlying policies being set out are matters to be considered which are reflected in the express assessment criteria in the Rule that flows from the objectives and policies. The policies and objectives anticipate that if a particular proposed marine farm satisfies the express criteria then that marine farm would be appropriate use or development in



the coastal environment. There is no real distinction drawn in MSRMP as far as policies and objectives are concerned as to marine farms that are wholly within 200 metres from mean low water mark and those that are not. However, the policies lay the foundation where the marine farming is generally not appropriate including areas where it is actually excluded. This is not an excluded area.

Policy 9.2.1.1.14 expressly recognises that there should be appropriate places in the Marlborough Sounds where marine farming can take place. As is recognised by the previous consents granted, the proposed site is an appropriate place for marine farming.

- b) *Objective 9.3.2.1 – Water quality*
Water quality is of paramount importance to mussel farms. Mussels are bi-valve filter feeders and absorb what is in the water column. A marine farm at the subject site is consistent with these policies and objectives.
- c) *Objective 9.4.1.1 – Protection of the foreshore and seabed*
These policies and objectives are designed to protect the foreshore or seabed from alteration. Supporting policies are aimed at restricting adverse effects from disturbance or alteration of the foreshore and/or seabed. Given the environment assessment by Davidson Environmental it is not considered that this objective is offended by the Application. The Applicant's view is that the proposed activity satisfies those assessment criteria and therefore is not inconsistent with the policies and objectives which underpin the Rule.
- d) *The remaining policies and objectives of the Coastal Marine Area related to aquaculture management areas and ship generated waves.*
Neither of these are relevant to the Application.

Marlborough Regional Policy Statement (MRPS)

There are a number of references to both aquaculture and marine farming in the MRPS. However this is a hierarchical document in that it is again perceived that the MSRMP is not inconsistent with the MRPS particularly in relation to aquaculture and marine farming.

Specifically Objective 5.3.2 of the MRPS is designed to maintain water quality which provides for sustainable management of the marine ecosystem.

Objective 7.2.7 is designed to ensure subdivision use and development of the coastal environment occurs in a sustainable way.

New Zealand Coastal Policy Statement 2010

This is a higher level document which generally seeks to enable activities in the coastal environment while ensuring that the effects of those activities are avoided or mitigated and seeks to preserve and restore natural character, to protect natural features and natural landscape, to protect historic heritage, public open space, to protect water quality, monitor sedimentation, to restrict the discharge of contaminants, to identify coastal hazards and restrict activity in relation to the coastal hazard risk. None of these matters are anticipated to be intended to be restricted by the current proposal.



Specifically there is now a policy (Policy 8) in relation to aquaculture which requires that the “significant, existing and potential contribution of aquaculture to the social economic and cultural wellbeing of the people and communities be recognised by making provision for aquaculture in regional coastal plans”. Given that aquaculture at the subject site is a *discretionary* activity, this policy is met.

Proposed Marlborough Environment Plan (MEP)

As stated above MEP expressly does not address marine farming and the provisions of MSRMP exclusively therefore govern applications for marine farming. In any event MEP is in the very earliest stages of the submission process and its provisions have yet to be tested. Little weight can be given to it especially where it departs equivalent provisions in the MSRMP. Having said that there are some matters that should be noted:

- (a) Blowhole Point does not have any Threatened Environment: Indigenous Vegetation Site (map 1, volume 4)
- (b) Blowhole Point does not lie in the Marine Mammal (Dolphin) areas (map 18, volume 6)
- (c) Blowhole Point does not lie within the Marine Mammal (Whale) areas (map 17, volume 4)
- (d) The bay to the south of Bowhole Point does not have any Ecologically Significant Marine Sites in it (map 5, volume 4)

- (a) *Any relevant requirements, conditions or permissions in any Rules in a document.*

See above.

- (b) *Any other relevant requirements in a document (for example, in a national environmental standard or other regulations)*

See above.

2. Additional Information required in some applications

The Applicant does not believe that there is any additional information required in terms of specific applications under the RMA and MSRMP that have not been provided.



Assessment of Environmental Effects

3. Information Required in Assessment of Environmental Effects

- (1) An assessment of the activity's effects on the environment must include the following information:
- (a) *If it is likely that the activity will result in any significant adverse effect on the environment, a description of any possible alternative locations or methods for undertaking the activity.*

For the reasons already given the Applicant does not perceive that the proposed marine farm extension will have any significant adverse effects on the environment and therefore possible alternative locations or methods for undertaking the activity have not been examined. However there are very very few opportunities for new marine farming in the Marlborough Sounds. Given the history of applications for marine farming recently it could be said that finding a location for expansion of marine farming within the Sounds is nigh on impossible.

- (b) *An assessment of the actual or potential effect on the environment of the activity.*

Various potential effects are examined in the subsequent paragraph, both adverse and positive.

Marine Mammals

It is not considered that the proposed marine farm extension will have any adverse effect on any marine mammals using this particular part of the Pelorus Sound. It is not considered to be a special habitat. While dolphin habitat in Admiralty Bay is a matter recognised by MSRMP there is no such protection for this particular part of the Outer Pelorus. In any event there is no documented record of marine mammal entanglement in a marine farm in the Pelorus. Marine mammals are not physically excluded from the subject site.

Sea Birds

There is now a body of literature which indicates that seabirds are not excluded from mussel farms and indeed find the mussel buoy a useful place for a temporary roost. Bird droppings on mussel buoys are a constant reminder of their use for that purpose. Even the rare (and timid) King Shag finds mussel buoys a useful resting place while foraging. And a place free of predators. There is no evidence to indicate that the existence of the proposed marine farm raises any concern relating to an adverse effect on seabirds.

With specific regard to King Shag the Applicant has not observed them using this particular area and as also indicated above the proposed extension is largely offshore and in deep water with reasonably high current and is unlikely to be of special significance to King Shag.

Navigation

As recorded above the proposed marine farm is in the special envelope of CM22 zone provided to the south of Blowhole Point. The parameters of that envelope have been set in the Plan to avoid navigation issues as the proposed development lies inside a true and proper course between Te Akaroa (West Entry Point) and Blowhole Point.



Public Access

The public is not physically excluded from utilising the CMA where the marine farm is. Recreationalists can enter the farm without fear of adverse consequences. The recreational public is now much more educated about these matters and do these days have concerns over access.

Fishing

Similarly the existing marine farm does not actually exclude fishing and a recreational fisher can tie up to the structures during the activity of fishing.

It is not considered by the Applicant that any commercial fishing operation is adversely affected by the existing marine farm.

Recreational Activity

There is no recognised recreational activity that occurs at the subject site such which will be adversely affected. There are many alternative places in the Outer Pelorus Sound where recreational activity is undertaken and there are substantial areas of the Outer Pelorus where marine farming is a *prohibited* activity. It is not considered that there is any likelihood of adverse effect on recreational activity.

Visual effects and Amenity Values

As recorded above the only view of the proposed site is from on board a passing vessel or someone shepherding stock on the adjoining farm land. The existing farm is tucked into the embayment and the proposed extension is seaward of that. It is not considered that there would be any visual effects or adverse amenity values that are anything more than minor. Indeed that was recognised in the original grant for the south western extension of the existing marine farm.

Landscape

There is no outstanding natural feature or outstanding natural landscape identified in MSRMP in the embayment. In any event the proposed activity is an extension of existing marine farming and that extension will not be of a scale or significance which adversely affects the landscape or character of the area.

Benthic Effects

This matter is separately addressed by the report of Davidson Environmental. The report concludes that the proposed site is a suitable one for development of the extension of the marine farm.

Nutrient Depletion

This matter is also addressed by the report of Davidson Environmental.

Coastal Processes

The area is recognised as having reasonably high current because it is at the entrance to the Pelorus. Despite that there is not recognised coastal process that would be adversely affected by the seaward extension of the existing farm.

Biosecurity

The Applicant is a member of the mussel industry ECOP. Compliance with the ECOP is designed to minimise biosecurity risks. It is in the farmers interests to ensure that a high standard is maintained.



Anchoring

The anchoring systems are suitable for the subject site. There is no known difficulty with the anchoring system which is on the existing farm or on the anchoring systems on the three farms to the north of Blowhole Point.

Cultural Values

The area is of general significance to iwi. However the extension of the existing marine farm is not considered to unduly or adversely affect any of the cultural and historic values for the area.

Noise

Human activity at this site only occurs during installation, maintenance and harvest. Most of the time there is no human presence at the site. There is no noise in the absence of human presence. During the human presence there can be mechanical noise. However that noise is confined to the area of the vessel undertaking the installation, maintenance or harvest. Human presence on the land that adjoins the subject site is infrequent.

Cumulative Effects

The existing marine farm is the only marine farm in the bay. An extension of that will be seen in the wider environment. The wider environment also includes three marine farms to the north of blowhole Point. However the available envelopes for development of marine farming in that particular area of the Outer Pelorus Sound are finite and relatively confined. There are large areas where marine farming is prohibited. No particular cumulative effect is considered to arise.

Positive Effects

As said above the Applicant considers this site to be arguably one of the best (if not the best) marine farm site in the Marlborough Sounds because of its location relative to current. When considering a proposed marine farm there tends to be an over-emphasis of potential adverse effects without recognising the positive effects and the contribution of mussel farming in the Marlborough Sounds for both the local economy and national one. The harvested product off the farm is supplied to Talleys Group Limited and it will be processed at Talleys' facility near Blenheim. Marine farming provides employment opportunities for those maintaining the farms and harvesting the product of the farm together with those that process the product from the farms. The effects of the proposed activity are less than minor and there is a significant positive effect from allowing marine farming at the subject site.

- (c) *If the activity includes the use of hazardous substances and installations in assessment of any risks to the environment that are likely to arise from such use:*

Not applicable.

- (d) *If the activity includes the discharge of any contaminant a description of the nature of the discharge, the sensitivity of the receiving environment and any possible alternative methods of discharge.*

Not applicable.



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

Not applicable.

- (f) *An identification of those persons interested in or affected by the proposal, the consultation undertaken, and any response to the views of those consulted.*

Contemporaneously with the lodging of this application the adjoining land owners and Iwl are being consulted.

- (g) *If the the scale or significance of the activity's effect are such that monitoring is required, a description of how, once the proposal is approved, effects will be monitored and by whom.*

Not applicable.

- (h) *If the activity will or is likely to have adverse effects that are more than minor on the exercise of a protected customary right, a description of possible alternative locations or methods for the exercise of the activity.*

Not applicable.

- (2) *Requirement to include information in the assessment of environmental effects is subject to the provisions of any policy statement or plan.*

See above.

4. Matters that must be Addressed by an Assessment of Environmental Effects

- (1) An assessment of the activity's effects on the environment must address the following matters:

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

As has been set out in this assessment the adverse effects of the proposed activity are small and certainly no more than minor. There is a positive effect in economic terms.

- (b) *Any physical effect on the locality, including any landscape and visual effects:*

This aspect has been examined above.

- (c) *Any effect on ecosystems, including effects on plants or animals and any physical disturbance of habitats in the vicinity:*

This aspect has been examined above.

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



There is no particular aesthetic, recreational, scientific, historical, spiritual or cultural value or special value of the subject site and therefore it is not considered that the proposed marine farm will have any effect on those values.

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

Not applicable.

- (f) *Any risk to the neighbourhood, the wider community, or the environment through natural hazards or the use of hazardous substances or hazardous installations:*

Not applicable.

- (2) The requirement to address a matter in the assessment of environment effects is subject to the provisions of any policy statement or plan.

This has been addressed above.

Conditions

The normal suite of conditions relating to marine farms normally imposed by Council is acceptable to the Applicant.





Topomap 50 Sheet: BP29

Base Topographical Data sourced
from Land Information New Zealand Data.
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Locality Map

Proposed Extension to Marine Farm 8630
Blowhole Point - Pelorus Sound

DPL
Draughting Plus Limited

Prepared
6 October 2016

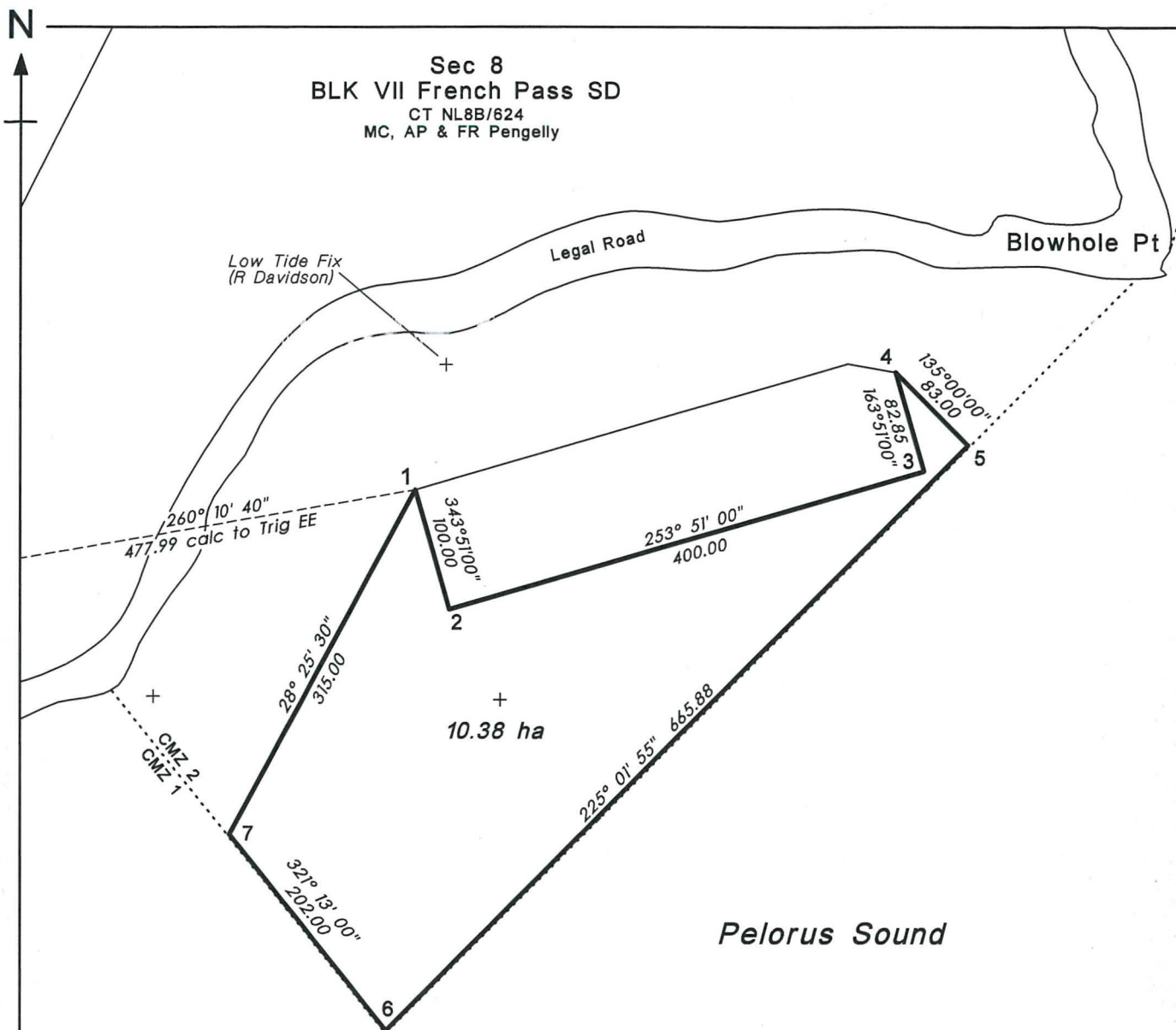
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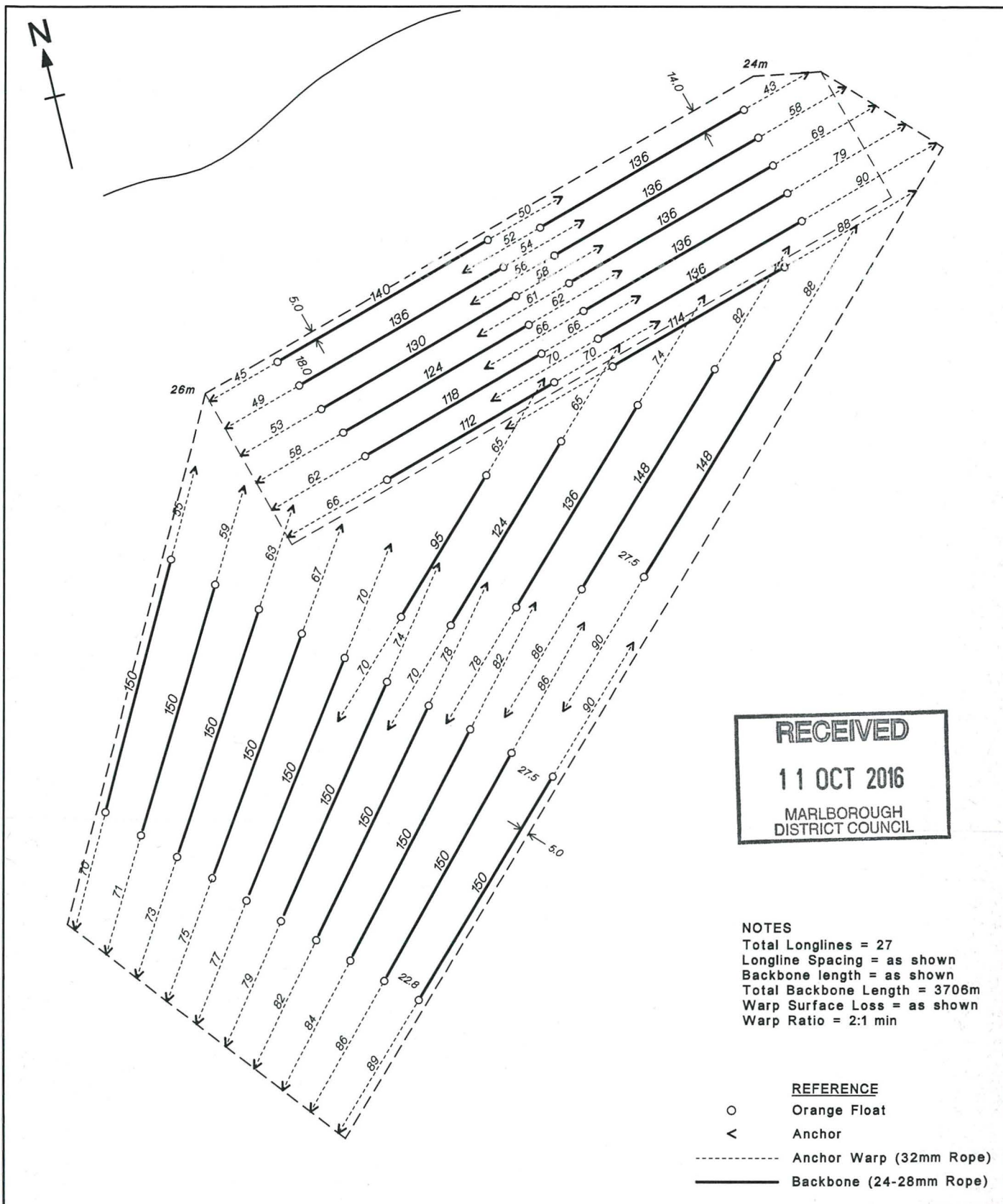
Proposed Coastal Permit Extension to Marine Farm 8630 Blowhole Point - Pelorus Sound

50 0 100 200 300 400 metres

SCALE 1:5,000

Prepared by: DRAUGHTING PLUS LTD
6 October 2016

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Layout Details **Marine Farm 8630 & Extension** **Blowhole Pt - Pelorus Sound**

SCALE 1:2,500
50 0 50 100 150 m

6 October 2016

MF_2489



Davidson Environmental Limited

Biological report for a new marine farm application near Blow Hole Point, Pelorus Sound

Research, survey and monitoring report number 791

*A report prepared for:
Marlborough Aquaculture
C/o Scott Madsen
120 Lindens Road RD 3
Blenheim 7273*

March 2014



Bibliographic reference:

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March 2014



The aim of the present study was to provide biological information in relation to an application for a new marine farm located west of Blow Hole Point, outer Pelorus Sound (Figure 1, Plates 1 and 2). This study provides biological information relating to the benthos, habitats and ecological attributes associated with the application.

The map shows the Akaroa Harbour area in New Zealand. Key features include the Akaroa Harbour, the Akaroa Peninsula, and the surrounding hills. The map is labeled with various locations, including Paparua, Akaroa, and the Akaroa Harbour. A red circle highlights the area around the Akaroa Harbour, which is the focus of the study.

Figure 1. Location of the proposed new marine farm (red circle) located near Blow Hole Point.



Plate 1. Proposed marine farm (grey) near Blow Hole Point (right of application).





Plate 2. Looking south-westwards from eastern end of the proposed farm. West Entry Point is located centrally, while East Entry Point is located in the distance at the left of the photo.



2.0 Background information

2.1 Study area

Blowhole Point is located on the northwestern shore of outer Pelorus Sound, approximately 3.5 km from the Pelorus Harbour limit, and some 48 km by sea from Havelock.

Existing marine farm consents located near the present application are depicted in Figure 2.

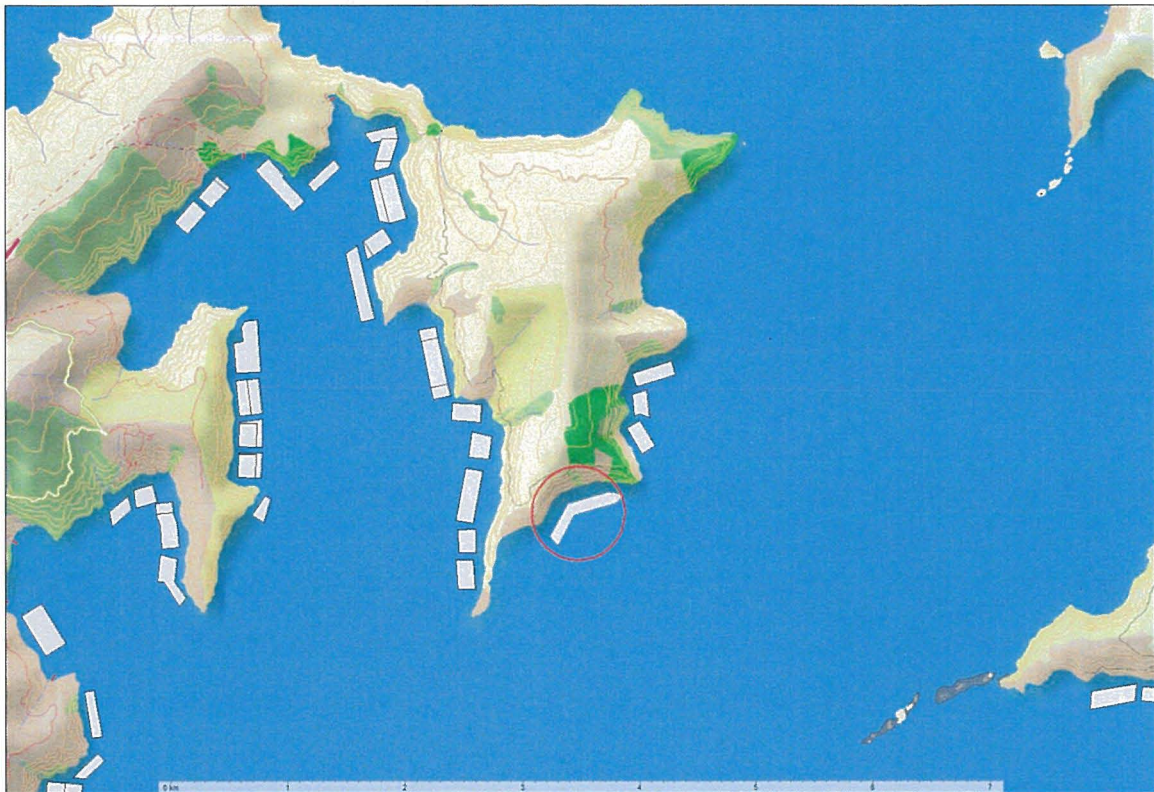


Figure 2. Location of the initially proposed application (red circle) and other consented marine farms in the vicinity (white).



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2.2 Historical reports

Three biological reports were found in relation the study area.

Brennan (1995) produced a small report for a new marine farm application for Marlborough Mussel Company. The author stated:

“The biota present at this site can be described as moderate diversity with a total of 9 different species identified. Of these, the most predominant species at low abundance are sea cucumbers and snake stars. Small patches of *Ulva* are noted occasionally. The seafloor is flat and muddy with a layer of shell litter throughout most of the area associated with the proposal. “

Forrest and Roberts (1995) produced a report for a new marine farm application (U950403) for Sanford South Island Ltd. The authors stated:

“This site covers a steady and steep shore profile over a depth range of 21-50 m. Rocky habitat exists in a narrow band around the shore, and steadily decreases to 50% rock interspersed with 50% shell, sand and mud by 12 m depth. Biota in this near shore area were typical of those found in rocky subtidal and subtidal slope habitat elsewhere in the Sounds.

Brachiopods (*Terebratella sanguinea*) were common among the shell gravel between 12-26 m. By 29 m, the habitat is predominantly soft mud. No reefs were seen within the vicinity of the site and horse mussels were rare and patchy (maximum 0.1 m², but < 0.1 m² overall). Scallops and kina were rare, < 0.1 m² overall.”

Cole *et al.*, (1999) produced a report for an eastern and western extension to an existing marine farm (U991322). The authors stated:

“The sounder runs showed that both the southern and northern sections of the site were very deep and steep, extending to 50 m, and frequently reaching 30 m only 100 m offshore.

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Southern end

Contiguous rock stopped at a depth of about 8 m, but cobbles continued beyond 30 m, our greatest dive depth. There were large numbers of fan-shaped hydroids (*Pennaria* sp.) at the site [between 7-20 m depths], and a strong clockwise current was running against the incoming tide, suggesting a back eddy. There were low densities of scallops (about 1 per 5 m²). The scallops included more than 1 year class. Cobbles continued to 30 m depth, sparsely distributed on the substratum (sand and shell). Common throughout most depths were the 11-armed starfish, snakestar, kina, sea cucumbers and blue cod. The purple Sabellid fan worm, *Branchiomma* sp., was observed throughout depths of 7-30 m in the cobble/sand/shell habitat.

Northern end

Moving down the slope, tubeworms and fan worms were quite common [5-15 m depth in cobble/sand substrate], as were small orange anemones, starfish, kina, and fish including blue cod, spotties, and triplefins. Feather hydroids (*Pennaria* sp.) were also present but were less common than at the southern site. Below 16 m, fine grained sediments were more evident [sand/shell/mud to varying degree], and a narrow band of scallops was observed at about 16-17 m at densities estimated at 1 per 2 m². Juvenile blue cod were relatively common, and low densities of golf-ball and encrusting sponges, along with small bryozoan colonies were recorded. Between 26-30 m, small red brachiopods (*Waltonia inconspicua*) were seen attached to shell rubble and a yellow finger sponge was found.

None of the species or their densities exceeded the DoC guidelines (DoC, 1995), but given the relatively high densities of hydroid and bryozoan colonies, the sabellid fan worm colonies, and the lack of fine sediment at depth, the shallower areas may require consideration. As the client wishes to use the site for spat holding, we recommend that the client move the inshore boundary of the southern end out to 100 m offshore to protect the habitats above 30 m depth."

3.0 Methods

A benthic biological survey for the proposed extension was conducted on 7th March 2014. Prior to fieldwork, the proposed marine farm application and parent farm corners were plotted onto mapping software (TUMONZ Professional). The laptop running the mapping software was linked to a Lowrance HDS-8 Gen2 GPS receiver 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 depth at each corner of the proposed marine farm was surveyed using real-time GPS.

3.1 Sonar imaging

Sonar investigations of the area were conducted using a Lowrance HDS-10 Gen 1 and HDS-8 Gen2 linked with a Lowrance StructureScanTM Sonar Imaging LSS-1 Module. These units provide right and left side imaging as well as DownScan ImagingTM. The unit also allows real time plotting of StructureMapTM overlays onto the installed Platinum underwater chart.

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, site depths

A total of 21 drop camera photographs were collected during the survey. Photographs were collected from within and inshore of the proposed farm area (Figure 3).

At each site, a Sea Viewer underwater splash camera fixed to an aluminium frame was lowered to the benthos and an oblique still photograph was collected where the frame landed. The location of photograph stations was selected in an effort to obtain good coverage of the proposed application area. Additional photographs were taken when any features of particular interest (e.g. shell debris, reef structures, and cobbles) that were observed on the remote monitor on-board the survey vessel or from sonar and depth soundings. All photographs collected during the survey have been included in Appendix 1.

3.3 Surface photographs

A surface photograph was collected looking into the initially proposed marine farm area from the northern most offshore corner. This was collected using the iPhone4s panoramic function to minimize any distortion usually associated with “stitching” separate photos together.

4.0 Results

4.1 Application corner depths

Inshore corner depths of the proposed marine farm ranged from 24 m to 27.2 m, while the offshore corner depths ranged from 37.5 m to 46 m (Table 1, Figure 3). The distance between plotted low water positions and the inshore boundary of the application was 110 m (east) 90 m (middle) and 109 m (west). Depths and locations of all drop camera stations have been listed in Table 2 and plotted in Figure 4.

Table 1. Depths recorded from the corners of proposed consent corners. Depths adjusted to datum. Coordinates = NZTM (Northing/Easting). Low tide coordinates from two sites adjacent to the application are listed.

Type	No. & Depth (m)	Coordinates
Consent corner	A, 27.2m	1684582.2,5467280.8
Consent corner	B, 26m	1684732.7,5467557.6
Consent corner	C, 24 m	1685082.9,5467658.9
Consent corner	D, 36 m	1685215.3,5467636.2
Consent corner	E 47.3m	1685147.1,5467563.1
Consent corner	F, 42.5m	1684786.6,5467459.5
Consent corner	G, 46m	1684655.7,5467217.3
Consent corner	H, 46m	1684637.7,5467211.6
Low tide		1684992.5,5467759.6
Low tide		1684520.9,5467391.9
Low tide		1684757.2,5467658.5

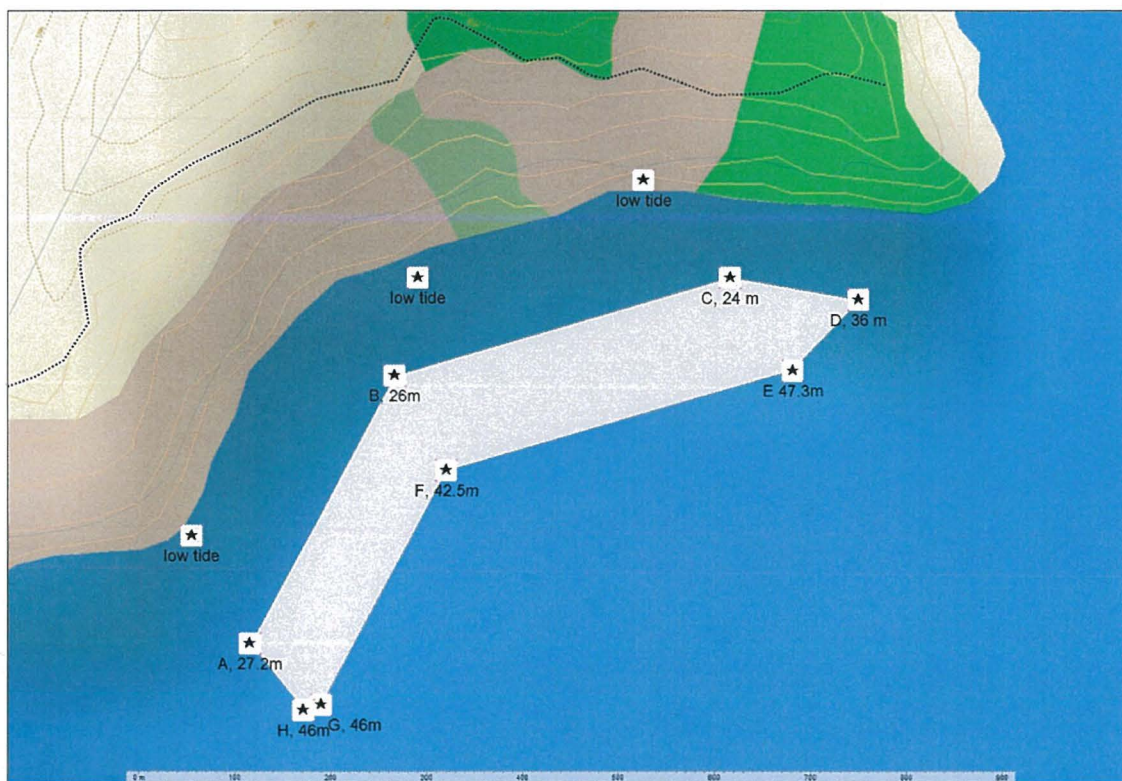


Figure 3. Depths of the proposed marine farm area (grey). The position of low tide is also indicated (see Table 1).



4.2 Substratum and habitats

Substratum and habitat distribution relative to the proposed marine farm application were based on 21 drop camera images combined with a sonar run and depth soundings conducted throughout the site (Figure 4, Table 2, Appendix 1).

Within the proposed marine farm area

A variety of habitats and substratum were recorded from the proposed application area (Table 2). Deep areas were characterised by silt and clay (e.g. Plate 4). These areas dominated most offshore deep areas of the northern portion of the application. Silt and clay with a strong component of natural shell was recorded from areas nearer Blow Hole Point (eastern-most) and from the western extension area (e.g. Plates 5 and 6).

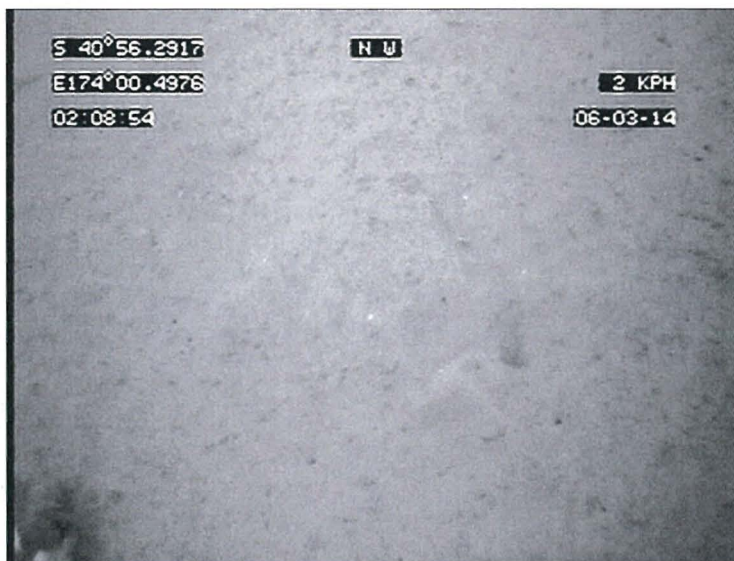


Plate 4. Silt and clay substratum within the proposed application (photo 5, 29.5 m depth).

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Plate 5. Silt and clay with natural shell (photo 2, 34 m depth).



Plate 6. Silt and clay with natural shell (photo 17, 39.1 m depth).

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Inshore of the proposed application

Areas immediately inshore of the application were characterised by combinations of cobbles, pebbles, silt and natural shell (Plate 7). Previous authors have described these areas as supporting a variety of species including hydroids, scallops and brachiopods (Cole *et al.*, 1999). These inshore soft bottoms are swept by moderate tidal currents making it an ideal habitat for filter feeding organisms.

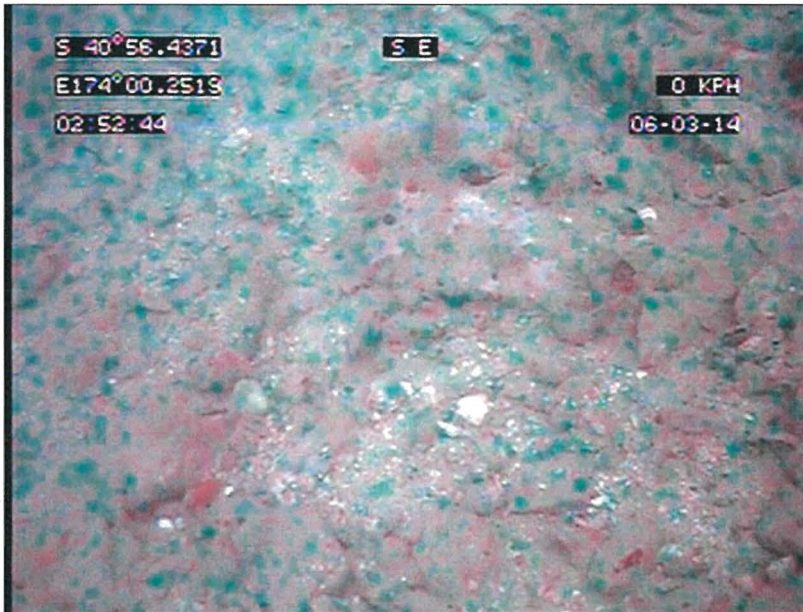


Plate 7. Cobble, silt and natural shell located inshore of application (photo 21, 14.8 m).

Flora and fauna

No scallops were observed from photos, however, previous authors have recorded them from areas inshore of the application. Hydroids, sponges and ascidians were common in photos collected from areas inshore of the application. The western coast appeared to support a greater diversity of habitats and species compared to the eastern shoreline. The inshore hard substratum community assemblage did not extend into the application.

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4.3 Sonar

The sonar run conducted along the inshore parts of the proposed marine farm application detected no rocky structures within the application (Figure 5). In the west, cobbles and boulders extended well from shore but did not reach the application.

Table 2. Coordinates of drop camera stations showing location relative to the marine farm application (NZTM). Colours are: grey = in proposed application, blue inshore or alongshore of proposed application. Depth, substratum and biological feature data are also listed.

No. & Depth (m)	Coordinates	Location	Substratum	Shell debris
1, 18.7m	1685016.3, 5467669.7	Inshore of application	Silt and clay, natural shell, occ cobbles	
2, 34m	1685029.9, 5467598.1	In application	Silt and clay, natural shell	
3, 44.7m	1685059.0, 5467560.4	In application	Silt and clay, natural shell	
4, 37.6m	1684945.8, 5467540.6	In application	Silt and clay, natural shell	
5, 29.5m	1684906.8, 5467594.3	In application	Silt and clay	
6, 20.2m	1684880.6, 5467643.5	Inshore of application	Silt and clay	
7, 19.5m	1684822.2, 5467604.3	Inshore of application	Silt and clay, natural shell, pebbles	
8, 27.9m	1684783.2, 5467534.0	In application	Silt and clay, natural shell	
9, 36m	1684841.4, 5467505.7	In application	Silt and clay, natural shell	
10, 37.2m	1684744.3, 5467455.5	In application	Silt and clay, natural shell	
11, 13m	1684718.9, 5467575.9	Inshore of application	Cobbles, silt, natural shell	Hydroids
12, 22m	1684694.7, 5467525.0	Inshore of application	Silt and clay, natural shell	
13, 27.3m	1684705.2, 5467493.2	In application	Silt and clay, natural shell	
14, 22.3m	1684650.7, 5467481.4	Inshore of application	Silt and clay, natural shell	Hydroids, snake star
15, 30.5m	1684665.4, 5467396.6	In application	Silt and clay, natural shell	
16, 14m	1684604.8, 5467396.0	Inshore of application	Cobbles, silt, natural shell	Sponges, hydroids, ascidians
17, 39.1m	1684713.3, 5467393.9	In application	Shell hash	
18, 33.5m	1684645.4, 5467312.2	In application	Silt and clay, natural shell	
19, 26.5m	1684620.9, 5467347.2	In application	Silt and clay, natural shell	
20, 22.9m	1684575.2, 5467315.8	Inshore of application	Cobbles, silt, natural shell	
21, 14.8m	1684545.8, 5467322.0	Inshore of application	Cobbles, silt, natural shell	Sponges, hydroids

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Figure 4. Drop camera stations (triangles). Numbers are the photo number and water depth (m).

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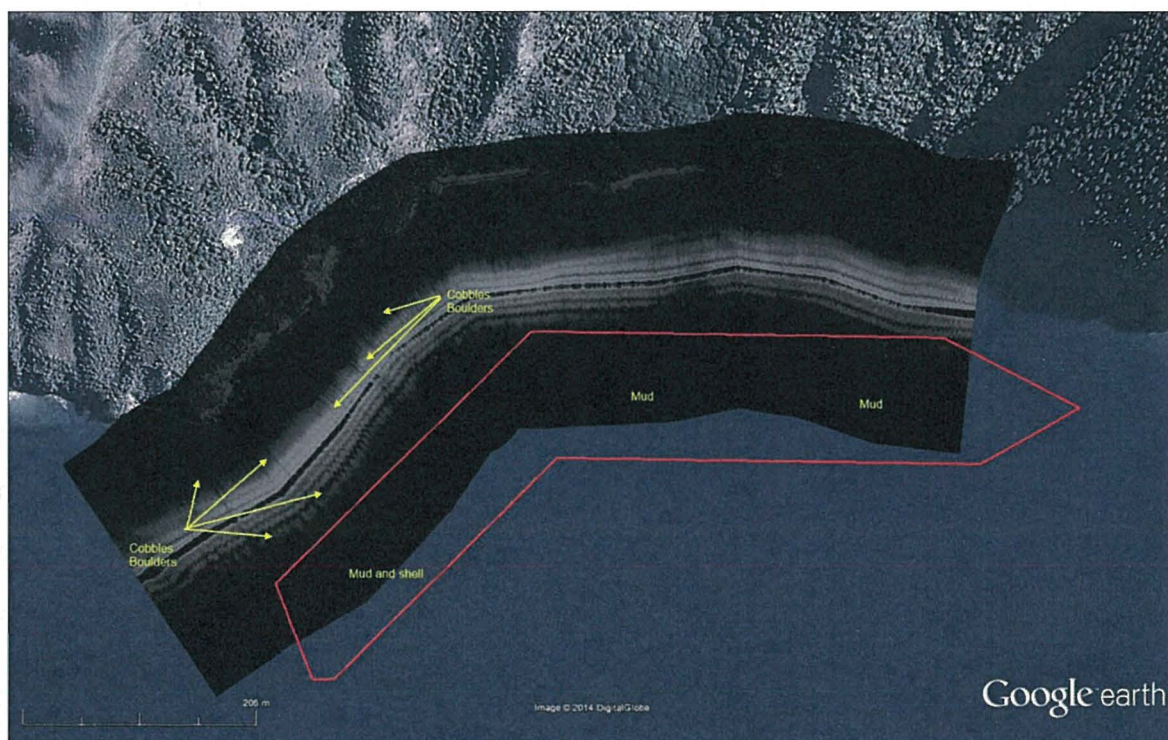


Figure 5. Sonar run along inshore boundary of the proposed farm (red line).



5.0 Conclusions

5.1 Substratum and biological values

The proposed application area was dominated by silt and clay substratum or silt and clay with natural shell. Areas inshore of the application were characterised by boulders, cobbles, silt and natural shell. Silt and clay substratum is widespread and common in the sheltered Marlborough Sounds and has been traditionally targeted by marine farming activities.

No rocky or reef features were detected within the application using sonar, however, hard substrata extended considerable distance from shore, particularly in the west. Areas inshore of the application are swept by tidal currents. This area has been described by other authors as supporting a variety of filter feeding organisms including hydroids, scallops and brachiopods (Cole *et al.*, 1999). Cole *et al.* (1999) recommended that this inshore western area be avoided by any farm application.

5.2 Impact

The applicant proposes to farm a variety of shellfish, but the likely species farmed will be mussels. The impact of a mussel farm in the Marlborough Sounds has been well documented and it is probable the present site, if established will conform within the range of impacts known for this activity.

Based on existing studies on the impact of mussel farms in the Marlborough Sounds and around New Zealand (see Keeley *et al.*, 2009 for review), it is unlikely that impacts would be detectable beyond 10-20 m from the droppers.

Based on the alongshore current direction, it is unlikely that inshore current swept communities that have been avoided by placing the farm boundaries well offshore, would be adversely impacted by the presence of a farm at this location.

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Appendix 1. Drop camera photographs

Photo site 1



Photo2



Photo site 3



Photo site 4



Photo 5

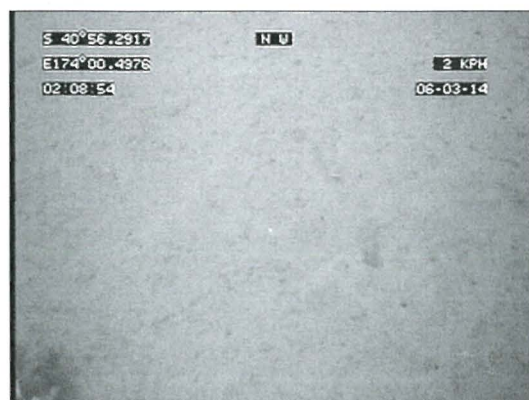


Photo site 6



Photo site 7



Photo site 8



Photo 9



Photo 10



Photo 11



Photo 12



Photo 13



Photo 14



Photo 15



Photo 16



Photo 17



Photo 18



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Photo 19



Photo 20



Photo 21

