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Our future in the sea - Toitu a tangaroa



Fit for a Changing World Marlborough Sounds Aquaculture FTAA-2609-1302

Substantive Application under the
Fast-track Approvals Act 2024

**Multiple Marlborough Marine
Farming Applicants**

September 2026

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Acronyms and General Terms

Acronym or Key Term	Definition
A+	A+ Sustainable Management Framework for Greenshell Mussels
ADP	New Zealand Aquaculture Development Plan
AMA	An Aquaculture Management Area as defined in the Marlborough Environment Plan
Bonamia TAG	Ministry for Primary Industries convened Bonamia Technical Advisory Group
BMP	Biosecurity Management Plan
BNZ	Biosecurity New Zealand
CIA	Cultural Impact Assessment
CMA	Coastal Marine Area
DOC	Department of Conservation
EAInZ	Environment Institute of Australia and New Zealand
EclA	Ecological Impact Assessment
ENSO	El Niño–Southern Oscillation
FNZ	Fisheries New Zealand
FTAA	Fast-track Approvals Act 2024
FTE	Full Time Equivalent
GDP	Gross Domestic Product
GWT	Greenweight tonnes
Harbourmaster	The Marlborough Harbourmaster under delegated authority from MNZ
HNC	High Natural Character
Kōpaua	Richmond Bay
Maara Moana	Maara Moana HC Limited, a company owned in equal share by each of the eight Te Taihu iwi which holds and manages aquaculture interests on behalf of those iwi.
MACAA	Marine and Coastal Area (Takutai Moana) Act 2011
MDC	Marlborough District Council
MEP	Marlborough Environment Plan
MFA	Marine Farming Association
MFA ECP	Marine Farming Association Environmental Certification Programme
MfE	Ministry for the Environment
MHWS	Mean High Water Springs
MIO	Mandated Iwi Organisation
MNZ	Maritime New Zealand
MRPS	Marlborough Regional Policy Statement
MPI	Ministry for Primary Industries
MSRMP	Marlborough Sounds Resource Management Plan (now largely superseded)
MMMP	Marine Mammal Management Plan
NABIS	MPI National Aquatic Biodiversity Information System mapping tool
NIWA	National Institute of Water and Air (now Earth Sciences New Zealand)
NZCPS	New Zealand Coastal Policy Statement
NZILA	New Zealand Institute of Landscape Architects
NZTCS	New Zealand Threat Classification System

OMP	Operational Management Plan
Onapua TAG	Marlborough District Council convened Onapua Technical Advisory Group
ONC	Outstanding Natural Character
ONL	Outstanding Natural Landscape
Outer Sounds	Outer Marlborough Sounds
Panel	EPA Expert Consenting Panel
Richmond Bay	Also referred to as Kōpaua
RMA	Resource Management Act
TAR	Threatened or At Risk species
Te Taihu	The area comprising Tasman, Nelson and Marlborough collectively termed the 'Top of the South' or Te Taihu.
UAE	Undue Adverse Effects as determined during an aquaculture decision under the Fisheries Act 1996
VHNC	Very High Natural Character

Table 1 Acronyms and key terms

Marine Farming Terms and Concepts

Term or Concept	Definition
Appendix 11 species	The 'species authorised to be farmed within the Marlborough region's coastal waters' as controlled activities set out in Appendix 11 of the MEP being: • Greenshell mussel (<i>Perna canaliculus</i>) • Blue mussel (<i>Mytilus galloprovincialis</i>) • Scallop (<i>Pecten novaezelandiae</i>) • Dredge oyster (<i>Ostrea chilensis</i>) also referred to as 'flat oyster' in this application. • Pacific oyster (<i>Crassostrea gigas</i>) • Kina (<i>Evechinus chloroticus</i>) • Pāua (<i>Haliotis iris</i>, <i>Haliotis australis</i>, <i>Haliotis virginea</i>) • Cockle (<i>Austrovenus stutchburyi</i>) • Pipi (<i>Paphies australis</i>) • Kopakopa/ribbed mussels (<i>Aulacomya atra maoriana</i>) • Geoduck (<i>Panopea zealandica</i>) • Seaweeds ○ <i>Macrocystis pyrifera</i> ○ <i>Ecklonia radiata</i> ○ <i>Gracilaria spp</i> ○ <i>Pterocladia lucida</i> ○ <i>Lessonia variegata</i> ○ <i>Ulva lactuca</i> ○ <i>Asparagopsis armata</i>
Anchor warp	Thick rope that connects a marine farm backbone to the anchors at each end.
Backbone	Thick rope extending between the warps and farm anchors that support the floats and growing rope. For mussel farming, both single and double backbones are utilised, depending on the site conditions. The use of double backbones effectively doubles the growing rope capacity.

Crop water space	Crop water space (also referred to as grow out or production water space) describes the areas where final seed is deployed and grown through to harvest.
Cycle time	The term cycle time is the period between when a mussel is final seeded and when it is harvested.
Density	The number of mussels present on a given length of growing rope.
Diversification of sites	Seasonal and annual environmental variability is an inherent aspect of primary production, with site performance fluctuating considerably from month to month and year to year. Deploying spat and seed across multiple locations helps buffer against uncertainty and environmental shocks, ensuring greater business resilience.
Dropper	A loop of growing rope suspended from the backbone and seeded with mussels.
Dropper spacing	The distance between each dropper loop on the backbone.
Final seed	Mussels at approximately 45 to 70mm shell length.
Final seeding	The stripping and reseedling of primary or intermediate seed to manage the density and growing location. This represents the last farming intervention before harvesting.
Flat oysters	The New Zealand native flat or 'Bluff' oyster species <i>Ostrea chilensis</i> , also referred to as 'dredge oyster in Appendix 11 of the MEP'
Greenshell mussels	The New Zealand native green-lipped mussel <i>Perna canaliculus</i>
Hatchery spat	Refers to juvenile mussels bred in controlled environments from carefully selected broodstock. Selective breeding processes have delivered significant performance gains, including faster growth rates, higher yields, and enhanced resilience. Crucially, hatchery spat can be produced year round, providing a consistent and reliable supply.
Intermediate seed	Mussels at approximately 15 to 25mm shell length.
Intermediate seeding	The stripping and reseedling of primary seed mussels to manage density and optimise growth.
Intermediate water space	Intermediate water space describes sites where intermediate seed mussels are relocated to and on-grown until they reach final seed size.
Longline	The conventional structure for mussel farms in New Zealand consisting of a single or double backbone connected to the seabed at either end by warps and anchors and held afloat by a series of buoys.
Longline	The conventional structure for mussel farms in New Zealand consisting of a single or double backbone connected to the seabed at either end by warps and anchors and held afloat by a series of buoys.
Nursery cycle	In the context of nursery sites, cycle time is often abbreviated to 'cycle' which represents the period of time between primary seeding and when the mussels are moved to other sites as intermediate or final seed.
Nursery water space	Used by the mussel industry to describe sites where spat is first deployed onto growing lines as 'seed'. The spat may originate from either beach cast seaweed, hatchery or line caught sources. These sites generally possess characteristics that support the growth and survival of juvenile mussels, which in turn results in above average spat retention. Mussels are relocated from nursery space as either intermediate seed or final seed.
Primary seed	Spat that is being seeded for the first time onto growing rope, generally at 2mm or less shell length for wild spat and 8mm for hatchery spat.
Primary seeding	The first seeding of spat onto growing lines.
Seeding costs	Seeding represents a fixed cost for mussel farming businesses. This cost includes the purchase of Annual Catch Entitlement, Te Hiku spat at market rates, seed at market rates or hatchery

	produced spat, as well as expenses related to spat transport, vessel operations, staffing, and equipment (including floats, spat rope, cotton stockings, and ties). Crucially, these seeding costs remain largely unchanged regardless of whether the spat conversion ratio is 1:1 or 5:1. The ability to efficiently convert spat into harvestable crop is fundamental to the financial viability of mussel farming. Higher spat conversion ratios directly improve profitability, as more mussels are produced from the same fixed seeding investment, generating a greater return at harvest.
Seston	Seston comprises a mixture of living phytoplankton, organic detritus and inorganic particles within the water column.
Spat	Settled juvenile mussels generally ranging from 0.3mm to 2mm in shell length.
Spat catching and growing rope	Fluffy rope with a large surface area that enables easy attachment for mussels via their byssal threads.
Spat conversion ratio	Spat conversion ratio is used to describe how many of metres of crop are generated by every metre of primary seeding. Density management is a critical component of successful mussel cultivation, and it is this stripping and reseedling at a lower density (during the intermediate and/or final seeding stage) that allows, for example, 1 metre of primary seed to be converted to 3 metres of harvestable crop.
Spat retention	Refers to the number of mussels present after primary seed has been in the water for several months.
Sub-surfaced lines	Traditional lines will have all the required flotation attached to the backbone. Sub-surfaced lines have some flotation on the backbone and some on strop ropes, allowing the backbone to sit below the water's surface and avoid wave energy and/or blue mussel over settlement.
Te Hiku spat	Refers to mussel spat collected from 90 Mile Beach/Te Oneroa-a-Tōhe. Te Hiku-o-te Ika-a-Māui is a traditional Māori name for the Far North region of New Zealand.

Table 2 Marine farming concepts and terms

Part 1 Project Summary

Marlborough Sounds Aquaculture – FTAA-2609-1302

This is a joint application for six separate aquaculture consents, each designed to enhance sector resilience, productivity, and diversity both regionally and nationally, while delivering a broad range of economic, social, cultural, and environmental benefits. As a package, the applications respond to challenges faced by the industry in complementary ways. Each application builds on current knowledge to collectively address the needs of the industry.

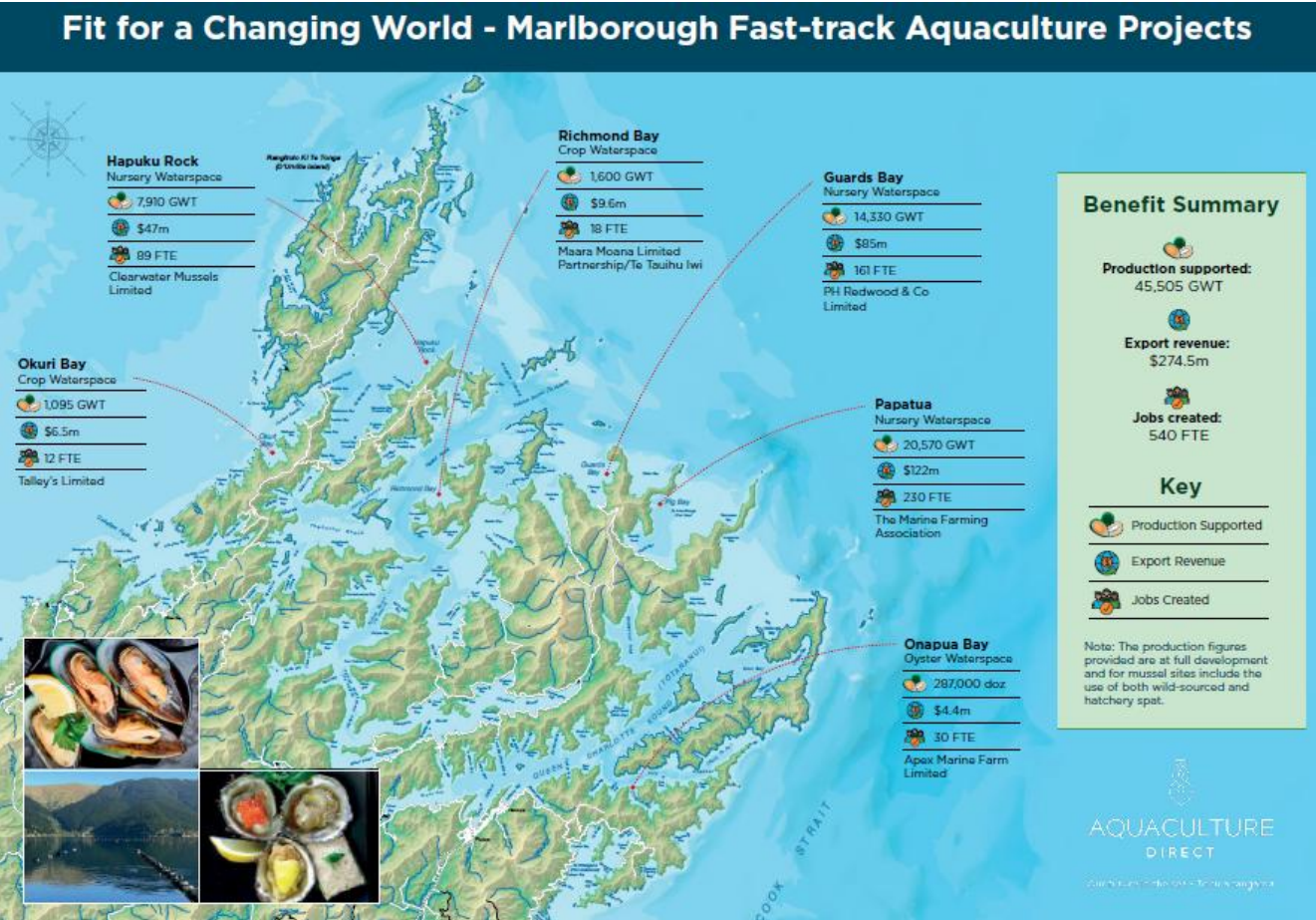


Figure 1 Benefits summary

One of the primary objectives of the applications is to enable the Marlborough mussel industry to adapt to a changing climate. The ability to convert mussel spat into seed is a significant production bottleneck nationwide and in Marlborough; sites that once delivered good spat performance are no longer viable for nursery use. This decline, in conjunction with spat access challenges, is limiting the growth and performance of the mussel industry. Figure 2 provides national mussel production in GWT for the period 1978 –2023 and clearly illustrates the productivity challenges faced by the sector since the mid-2000s.



Figure 2 AQNZ mussel production data 1978 – 2023

The farming of mussels needs to acknowledge biological reality. Farming of indigenous mussels and indigenous oysters in their natural habitat requires the farming system to mimic nature. Nature provides mussels with a diversity of sites to respond to different environmental circumstances. The present industry lacks that diversity in key areas. This application seeks to provide a solution to the industry's primary production bottleneck.

Mussels of up to 20 mm in size are highly mobile within the water column and can detach from their substrate and move with the aid of a mucus parachute in the current. Certain sites tend to be better than others at encouraging the spat to remain on the lines and grow until they are larger than approximately 20 mm and consequently no longer able to relocate, these are known as 'nursery sites'.

The concept of spat nurseries is explained in detail in **Part 4** of this application as well as the Ministry for Primary Industries (MPI) publication *Enabling spat nurseries to grow New Zealand's mussel sector*.¹ In short, spat is caught (or obtained from a hatchery), brought to a site known to be a location where spat are retained and 'held' there for a period while it grows in size and resilience prior to transfer to crop sites. Adult mussels are then on grown and harvested from the crop sites.

These are the cooler, oceanic water Outer Sounds sites which the current regulatory regime in Marlborough prohibits access to, as they largely coincide with areas of mapped Outstanding Natural Landscape (ONL) or Outstanding Natural Character (ONC).

The Marlborough Environment Plan (MEP) provisions, despite only just being made operative in part, were based on knowledge that is almost a decade old. This application is based on the industry's current understanding of shellfish biology and the changing climate. Consequently, the MEP does not provide a consenting pathway for new longline marine farming in the areas covered by this application without a private

¹ Fisheries New Zealand, [Enabling Spat Nurseries to Grow New Zealand's Mussel Sector](#) (Fisheries New Zealand, 2025)

plan change application². The allocation framework adopted in the MEP to provide Aquaculture Management Areas (AMA) for the existing industry only. The Marlborough mussel industry urgently needs access to cooler nursery water space to address its productivity challenges.

In addition to the critical nursery sites, complementary production water space is being sought to provide greater geographic diversity and support iwi aquaculture aspirations. Site diversity helps maintain harvest continuity by reducing vulnerability to climate driven events such as algal blooms and flooding, risks that are escalating due to warming oceans and more frequent storms.

Species diversification also represents a viable climate adaptation strategy, as for example, the proliferation of new diseases associated with warmer waters and increased shellfish stress are often species specific. This application package also facilitates a return to flat oyster farming which represents a high value opportunity for the New Zealand shellfish sector.

One of the primary goals of the applications, therefore, is to facilitate adaptation to a changing climate. For the Marlborough mussel industry, they address a desperate need for improved spat retention. As the primary production bottleneck is at the spat holding or nursery stage of the farming cycle, improving the conversion of spat to seed will enable greater productivity from the industry's existing assets, on land and at sea. It is self-evident that without spat and without the ability to retain that spat through to seed, the industry will have no adult mussels to sell.

A similar climate adaptation issue arises with the oyster industry. In respect of the high value New Zealand flat oyster (*Ostrea chilensis*) methods of farming need to allow for year class separation to appropriately manage *Bonamia ostreae*, (Bonamia) a shellfish disease now well established in New Zealand. The MPI convened Bonamia Technical Advisory Group (Bonamia TAG) reported in 2019 that with appropriate biosecurity measures in place, that flat oyster farming in Marlborough could recommence.³ Year class separation is a key component of best practice biosecurity for flat oysters.

The second growing site subject to this application will therefore enable the reestablishment of commercial flat oyster farming. The flat oyster is a high value product for which there are existing markets and represents a substantial opportunity for the aquaculture industry. There are existing marine farms in the Sounds that are consented for farming of flat oysters including the applicant's own farms in Oyster Bay, (also in Tory Channel).

The various parts of the application respond to the challenges facing the industry in diverse ways. This is deliberate and necessary. One site or one mode of farming may work in certain circumstances but may be less effective in others. Each of the sites is in a location known for successful farming characteristics. Collectively the application provides a comprehensive response to climate change and the need for resilience, while also delivering on sector growth.

² All are within the Enclosed Waters CMU or Near shore CMU in the MEP, where prohibited activity Rule 16.7.9 applies [Operative in part - Rules - Chapter 16 - Coastal Marine Zone \(Updated 20 July 2026\)](#).

³ Diggles, B.K., Deveney, M., Michael, K.P. and Farnsworth, M.C., [Report of the Technical Advisory Group 2019 on a Return to Flat Oyster Farming](#) 23–27 September 2019 (report for Biosecurity New Zealand, Ministry for Primary Industries, 2020) (provided in **Schedule D15**).

In addition to addressing a critical production bottleneck and supporting climate adaptation, collectively these projects will generate \$275 million in indicative export revenue, create 222 full time equivalent jobs and increase national GDP by \$1,283 million over 30 years. Over a 30 year assessment period, the present value of the increase in Marlborough GDP and household spending is estimated at \$865 million and \$409 million respectively.

The economic effects are regionally significant and will generate positive regional and national economic outcomes.

By providing optimal mussel nursery conditions, the proposed sites enable higher conversion of spat to viable seed for existing farms leading to greater overall production from current farm space, supporting higher export volumes and associated employment, even though the area of new space applied for is largely nursery rather than crop production space.

The Richmond Bay site has been provided by the other five applicants as a gift to iwi through Maara Moana HC Limited (Maara Moana) and 17.7% of the lines of the Papatua site will be set aside for iwi as nursery space to support a potential crop development. This provides a significant package of opportunity for iwi to progress their aquaculture aspirations over and above any Crown obligations that will be triggered in the granting of new space. The annual potential export revenue from Richmond Bay is modelled at \$9.6 million once fully operational.

Aquaculture is perhaps the most studied and understood activity that occurs in the coastal marine area. It is a science driven and innovative industry. By virtue of operating in the natural environment, the industry has invested heavily in research to understand its effects and to optimise water space.

The potential environmental effects have been comprehensively assessed and determined to be generally no more than minor. There will be some localised effects that are more than minor; site specific landscape and natural character effects at Papatua, close range visual and amenity effects at Richmond Bay; and effects on visual amenity, the navigation experience and recreation at Onapua Bay, but those effects are considered appropriate in their location. Behavioural effects on dusky dolphin at Hāpuku Rock may be up to moderate, reflecting uncertainty in the existing knowledge rather than an identified effect mechanism, and will be addressed through Clearwater's research contribution. Cultural effects are for iwi to determine. The activities will provide positive ecosystem services such as habitat creation. Furthermore, farmed shellfish are a sustainable, nutritious and low carbon protein source.

Each of applications are regionally significant in their own right and meet the purpose of the Fast-track Approvals Act (FTAA). However, their true strength is that as a package they comprise a transformative opportunity to adapt the Marlborough industry to be fit for a changing world, with increased supply chain resilience, diversity and productivity and to strengthen the export value and sustainability of New Zealand's marine farming future.

Part 2 Introduction

2.1 Application Structure

This application comprises six separate resource consent and aquaculture decision applications made by six separate entities. Combined they provide a package of projects that will provide a step change in the resilience and productivity of the Marlborough aquaculture industry. The applications share many similarities in that they are all longline shellfish (and in some cases seaweed) aquaculture with very similar and well known environmental effects. There are also strong interrelationships between the sites and applicants, for example, spat from the Papatua site will likely be seeded into Richmond Bay and Okuri Bay, before being processed at facilities owned by several applicants. Each application also constitutes a prohibited activity under the MEP.

The applications have been consulted on as a package including a comprehensive process for engaging Marlborough tangata whenua. They each align strongly with the New Zealand Aquaculture Development Plan⁴ (ADP) and related initiatives. Combined their benefits are greater than the sum of their parts.

For these reasons this application is structured to focus first on combined benefits and common environmental effects then to set out the site specific context and environmental effects for each application as follows:

Application Reference		Information Included
Part 1	Project Summary	Provides an overview of the application including description of its alignment against the purpose of the FTAA.
Part 2	Introduction	Sets out the application structure, acronyms and key terms, and summarises the applications.
Part 3	Statutory Framework	Provides an assessment of the application against the purpose and requirements of the FTAA including approvals relating to the Resource Management Act 1991 (RMA), an assessment against sections 5, 6, 7 and 8 of the RMA, and summarises the assessment against relevant planning instruments. As new aquaculture activities, each of the sites will require an Aquaculture Decision, to be made by the Panel on the advice of Fisheries New Zealand (FNZ). The applicants have engaged with FNZ on that requirement. Summarises consultation undertaken in accordance with the FTAA.
Part 4	Industry and Geographic Context	Describes the industry, biological and geographic foundations that underpin the case for these FTAA applications. It is intended to function as shared technical foundation for the application package.
Part 5	Project Benefits	Describes the economic, social, and ecosystem benefits of the project.
Part 6	Assessment of Environmental Effects	Describes the Marlborough Sounds environment. Provides an overview of the environmental effects of longline aquaculture drawing on many years of scientific study on the industry in New Zealand as well as technical assessments specifically contracted to support this application. Provides assessments of the common environmental effects.
Part 7	AEE for Papatua	Each separate Assessment of Environmental Effects (AEE) provides a table to reference the relevant information from the preceding parts, and where
Part 8	AEE for Guards Bay	

⁴New Zealand Government. [New Zealand Aquaculture Development Plan 2025-2030](#) (December 2024)

Part 9	AEE for Hāpuku Rock	relevant provides additional site specific context. Each of these parts describes the existing environment, a site specific assessment of environmental effects and any site specific consent conditions.
Part 10	AEE for Okuri Bay	
Part 11	AEE for Richmond Bay	
Part 12	AEE for Onapua Bay	
Part 13	Conclusion	Concludes that the application meets the requirements of the FTAA and should be approved.
Schedule A	Maps and Plans	Provides a location map, site and layout plans and overlay maps showing the proposed sites in the context of relevant overlays in the MEP.
Schedule B	Cultural Engagement	Sets out a record of cultural engagement and a summary of matters raised during that engagement. Provides an initial assessment of effects on customary fishing.
Schedule C	Consultation Record	Sets out all consultation undertaken under s11 of the FTAA with relevant local authorities, relevant iwi authorities, hapū and Treaty settlement entities, relevant Marine and Coastal Area (Takutai Moana) Act 2001 (MACAA) applicant groups and the relevant administering agencies.
Schedule D	Technical Assessments	Provides an index to all expert technical assessments. Then provides each of those technical assessments in full.
Schedule E	Management Plans	Provides the Papatua Site Management Plan the Marine Mammal Management Plan and the Biosecurity Management Plans.
Schedule F	Proposed Conditions	Provides a set of proposed consent conditions for each consent which have been discussed with the Marlborough District Council (MDC) and the Department of Conservation (DOC)
Schedule G	Planning Assessment	Provides a detailed planning assessment against the relevant provisions of the New Zealand Coastal Policy Statement (NZCPS), the MEP and relevant iwi management plans.
Schedule H	Referral Decision	Provides a copy of the referral decision made on 4 May 2026.
Schedule I	Reference Documents	Provides an index to key reference documents then provides each of those reference documents in full.
Schedule J	Section 30 Notice	The FTAA s30 notice from MDC confirming there are no competing resource consents.
Schedule K	Nearest Landowners and Other Legal Interests	A schedule setting out the nearest landowners and other legal interests
Schedule L	Guards Bay Hectare Change	An explanation of the minor change to the hectares for Guards Bay from those in the referral decision

Table 3 Application structure

2.2 Application Summary

This application is for six separate coastal permits to undertake aquaculture activities to collectively respond to challenges facing the industry. Details for each application are as follows:

Application		Applicant
Papatua – 90 hectares of mussel nursery space	- The proposal is for one block to be used as a nursery site for juvenile Greenshell mussels to be farmed using conventional longline structures. The applicant proposes a condition that requires that mussels from the farm be seeded onto another farm before harvest to ensure it is not used as a production farm. - The site is considered a premium Outer Sounds location with cooler oceanic waters and will be particularly valuable as a nursery. - It will have a partnership component with local Iwi and provide some ‘community water space’ which will be used to fund projects of community benefit. - There have been no RMA compliance or enforcement actions taken against the applicant.	The Marine Farming Association Incorporated (MFA) (on behalf of the industry, with preferential rights to Iwi and a community trust as a beneficiary)
Guards Bay – 78.47 hectares of mussel nursery space	- The proposal is to add an extension to the existing 12 hectare farm (8164), and to use the space as a nursery site for juvenile Greenshell using conventional longline structures. The applicant proposes a condition that requires that mussels from the farm be seeded onto another farm before harvest to ensure it is not used as a production farm. - The existing farm has a proven track record as successful Greenshell mussel nursery space. Cooler oceanic sites like Guards Bay are rare in the Marlborough Sounds, as it is fed by the waters of Cook Strait. There are many other characteristics of this location, making it ideal as a spat nursery site. For example, it is not susceptible to blue mussel over settlement, which is a big problem in the majority of the Sounds. - The applicant has regularly had retention of 1 metre of primary seed to 5 metres of final seed, significantly higher than the industry average. - There have been no RMA compliance or enforcement actions taken against the applicant.	P H Redwood & Co Limited
Hāpuku Rock – 28.03 hectares of mussel nursery space	- The proposal is for two blocks adjoining an existing 4 hectare farm (8057) to be used as Greenshell mussel nursery space. The applicant proposes a condition that requires that mussels from the farm be seeded onto another farm before harvest to ensure it is not used as a production farm. - This site has proven spat retention characteristics and increases site diversity of options for industry to optimise spat retention. - There have been no RMA compliance or enforcement actions taken against the applicant.	Clearwater Mussels Limited
Okuri Bay – 27.89	The proposal is for two blocks to be used for spat nursery and crop production of Greenshell mussels.	Clearwater Mussels

hectares of mussel farming space with spat catching and farming of other shellfish and seaweeds	- The application includes all other '<i>commonly consented</i>' shellfish and seaweed species set out in Appendix 11 of the MEP. - The Okuri Bay site is exposed to cooler oceanic currents, but it is also sheltered and suitable as a crop production farm. There is an existing farm in the bay that has performed well over time. This site in Current Basin is subject to few freshwater inputs. There is only <i>Pinus radiata</i> forestry and low intensity grazing in the surrounding hills and few buildings. As a consequence, it is safe to harvest mussels after rainfall at this location. With storm events predicted to be more frequent, sites like this will be more valuable. - The applicant has a live private plan change and concurrent resource consent application for the space, but the resource consent application will be withdrawn after the acceptance of the substantive Fast-track application and the plan change which relate to the historic Marlborough Sounds Resource Management Plan (MSRMP) will be superseded when the MEP becomes operative. It is not a 'competing application' as defined in the FTAA. There have been no RMA compliance or enforcement actions taken against the applicant.	Limited and Talley's Limited
Richmond Bay – 42.17 hectares of marine farming space for Iwi including for mussel, other shellfish, and/or seaweed farming	- The five other applicants are contributing resources to enable consent for new marine farming space to gift to Iwi in the Outer Pelorus Sound. - The proposal is for three blocks with the primary purpose of the farming Greenshell mussels using conventional longline structures. - The application includes all other '<i>commonly consented</i>' shellfish and seaweed species set out in Appendix 11 of the MEP. - Richmond Bay has existing proven crop mussel farms and potential for diversification of species. - Richmond Bay had previously been identified by the MDC as potentially appropriate for marine farming. - There have been no RMA compliance or enforcement actions taken against the applicant.	The five other applicants as bare trustee for Maara Moana HC Limited (Maara Moana)
Onapua Bay – 15.73 hectares of flat oyster farming with farming of mussels and seaweed	- The proposal is for three blocks to farm the flat oyster (<i>Ostrea chilensis</i>) as well as for production of Greenshell mussels and seaweed. - The application includes all '<i>commonly consented</i>' shellfish and seaweed species set out in Appendix 11 of the MEP. The applicant is also seeking to harvest the wakame seaweed <i>Undaria pinnatifida</i> (Undaria). - The project is seeking to boost the resilience of the marine farming industry, especially for flat oysters which have an existing export market and proven technology, making them the most production and market ready 'new' shellfish species. - The space would enable most importantly the key biosecurity protocols of separation of year classes, low stocking density, and growing cycle of no more than 28 months. Flat oyster farming may, in the future, be subject to separate	Apex Marine Farm Limited

	Biosecurity Act permissions that sit outside this application. Permission under the Biosecurity Act to move oysters outside Marlborough is currently required. • In the unlikely event that biosecurity prevents flat oyster farming the site will be used for Greenshell mussels and seaweed. Seaweed farming is specifically flagged in Government policy as a key opportunity to grow the aquaculture industry. • The applicant has a live private plan change and concurrent resource consent application for the space, but the resource consent application will be withdrawn after the acceptance of the substantive Fast-track application and the plan change which relates to the historic MSRMP will be superseded when the MEP becomes operative. It is not a 'competing application as defined in the FTAA. • There have been no RMA compliance or enforcement actions taken against the applicant.	
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Table 4 Application summary

The applicants are seeking a 35 year term with a three year lapse period with the exception of Richmond Bay. In the case of Richmond Bay, a 35 year term is sought with a five year lapse period.

Part 3 Statutory Framework

3.1 Fast-track Approvals Act Purpose

The purpose of the Fast-track Approvals Act (FTAA) is set out in Section 3:

- *'The purpose of this Act is to facilitate the delivery of infrastructure and development projects with significant regional or national benefits.'*

As described in detail throughout this application this project fulfils that purpose in its entirety.

3.1.1 Benefits Summary

The six applications will boost the productivity and resilience of Marlborough's shellfish industry and individually and collectively will deliver significant regional and national benefits. The project's benefits are detailed in **Part 5** and the NZIER economic assessment in **Schedule D22**. Collective benefits are set out in **Part 5**. Site specific benefits are set out in **Parts 7 to 12**.

The mussel nursery proposals (**Papatua**, **Guards Bay** and **Hāpuku Rock**) create premium Greenshell mussel nursery water space in the Outer Marlborough Sounds (Outer Sounds). Spat on-growing and nursery activities are a critical element of the mussel farming industry's operational resilience. The ADP recognises that *'aquaculture is a key industry for the prosperity of the nation'⁵* but that *'investment into hatcheries and nurseries is needed so there is enough spat to fully utilise existing space'*. The industry and Government growth goal is that aquaculture is a \$3 billion industry by 2035⁶ and that mussel farming contributes up to a third of that value. To enable this the industry, through its Spat Strategy⁷, is projected to require a 40% increase in spat supply by 2025 and a 70% increase by 2035 in addition to achieving better retention across existing mussel farms. The Government recognises that to realise its growth goal, *'the industry needs to increase survival of available spat by holding it at nursery sites during their most vulnerable period of development. In New Zealand, there are limited nursery sites that offer optimal conditions'*.

In addition, the **Papatua** mussel nursery provides equitable access across the industry to this premium nursery site through the MFA.

One of the mussel farming proposals (**Okuri Bay**) also has potential as mussel nursery space.

Two of the mussel farming proposals (**Okuri Bay** and **Richmond Bay**) provide new productive water space in the Outer Sounds, collectively comprising 70.06 hectares with the capacity to add up to 2,708 greenweight tonnes (GWT) of annual production. The diversity of sites also adds resilience to the industry, in light of changing environmental conditions from year to year.

Together, the mussel projects will generate approximately 45,523 GWT of mussel production per year and \$270.9 million in export revenue.

Furthermore, by accessing near optimal growing conditions, the nursery water space applicants anticipate a

⁵[New Zealand Aquaculture Development Plan Aims to Grow Industry to \\$3b a Year](#) (RNZ online ed, 2025)

⁶ New Zealand Government, [The Government's Aquaculture Strategy to 2025](#) (Ministry for Primary Industries, 2019)

⁷ Aquaculture New Zealand, [New Zealand Greenshell Mussel Spat Strategy](#) (Aquaculture New Zealand, 2021)

significant improvement in spat conversion ratios, specifically, increasing from the industry norm of 1.8:1 to 3:1. This enhanced conversion rate is identified as the primary benefit of the proposed nursery water space, as it is expected to drive a significant **productivity uplift** across the Marlborough Sounds industry.

The flat oyster farming proposal (**Onapua Bay**) provides an opportunity for diversification into a high value species. It presents the most market ready opportunity for a new species, in direct alignment with pathway 4 of the Aquaculture Development Plan.

Onapua Bay will generate approximately 115 GWT of high value flat oysters and \$4.4 million in export revenue.

Two of the proposals (**Papatua and Richmond Bay**) provide direct benefits for Māori, while the remaining proposals will also create the economic and social benefits of a vibrant shellfish industry, and present significant opportunities for Iwi to meet their intergenerational aspirations. The ADP notes that *‘Māori are already leaders in the aquaculture sector, driving innovation and seeking opportunities to grow the industry’*. The Government strategy *‘recognises the importance of partnering with Iwi to ensure their values and aspirations, commercially, culturally and as kaitiaki, are provided for. This means going beyond legislative obligations and embracing true partnership. Supporting sustainable industries like aquaculture will be essential to ensuring future generations have the high standards of wellbeing we owe them’*.

As a package the applications will add diversity, resilience and productivity and combined will be transformative for Marlborough and the broader New Zealand aquaculture industry. They will also support local jobs, investment, and community funding including through the MFA CEF.

Combined the projects will increase Marlborough gross domestic product (GDP) by approximately \$84.4 million per annum and national GDP by **\$1,283 million over 30 years**. The benefits are significant on a regional and national scale.

‘The proposed developments generate positive regional and national economic outcomes. Our modelling indicates that the projects strengthen Marlborough’s productive capacity and increase production, exports, employment and regional incomes. Overall, the proposed developments are expected to provide significant and enduring economic benefits.’

Bill Kaye-Blake – NZIER

3.1.2 Consistency with Sector and Government Plans and Strategies

New Zealand’s aquaculture sector is exceptionally well placed for transformative growth, driven by rising global demand for sustainable seafood, the country’s extensive and diverse marine resources, and its strong reputation for premium exports. These natural and market driven advantages, when combined with strong Māori leadership and bipartisan government support, create a compelling economic opportunity for the nation. With a clear government vision and a focus on sustainability and innovation, aquaculture is a primary sector capable of delivering export led prosperity and supporting regional communities.

The New Zealand Aquaculture Strategy⁸ sets a vision for the sector to be *‘recognised within New Zealand and around the world as producing healthy, high quality, environmentally sustainable aquaculture products.’* The industry is already recognised as a global leader but requires a boost to existing productivity to realise its full potential.

The Government’s New Zealand Aquaculture Development Plan recognises the developing aquaculture sector as *‘one of New Zealand’s biggest opportunities’* and that *‘as well as contributing to our export led recovery, a diverse and strong aquaculture sector will provide resilience for rural communities’*. It outlines actions to enable the industry to reach the goal of \$3 billion in annual revenue by 2035. Collectively these applications have the potential to support export revenue of approximately \$275.3 million.

Access to sufficient spat and seed, climate adaptation and flexibility and geographic diversity are fundamental to sustaining and growing the Marlborough industry. These applications will improve the productivity of existing farmed space, as well as supporting future growth.

The industry developed a Spat Strategy as a key step in achieving its goals intended to underpin and guide research, innovation and production for the next decade. Its key pillars are securing and diversifying spat supplies and optimising spat use. The mussel nursery applications (**Papatua, Guards Bay and Hāpuku Rock**) each contribute to resilience and diversity of supply. The Outer Sounds consistently deliver above average spat retention, support higher primary productivity at critical times of year, are consistently cooler and provide essential hydrodynamic diversity for New Zealand’s most important mussel growing region.

These applications have strong alignment with Government’s ‘Securing Spat Supply Work Plan’⁹ which includes a role for Government to provide regulatory pathways such as through this Fast-track application.

The mussel production applications (**Okuri Bay and Richmond Bay**) are complementary to the nursery applications, providing crop water space in proven growing areas and additional geographic diversity.

The proposal to farm flat oysters and seaweed species at **Onapua Bay** presents a key opportunity for species diversity for the Marlborough region as well as New Zealand more broadly and directly aligns with Pathway 4 of the ADP. Flat oysters have already been proven as a high value species in key markets, including recognition by high profile chefs such as Al Brown and Simon Gault. They are consented in more than 200 sites across the Sounds, and this application presents an opportunity to pioneer resumption of flat oyster farming. The applicant has significant experience refining the growing system to maximise productivity. The addition of seaweed species to this application further enhances diversification opportunities.

The application will directly support Māori aspirations in aquaculture in alignment with Pathway 3 of the ADP. With regard to the **Richmond Bay** and **Papatua** proposals Maara Moana has acknowledged the applicant's support for iwi aquaculture aspirations.

Furthermore, The Government has recently announced significant investment in the establishment of a

⁸ Aquaculture New Zealand, [The New Zealand Aquaculture Strategy](#) (Aquaculture New Zealand, 2007)

⁹ Fisheries New Zealand, [Securing Spat Supply Work Plan](#) (Fisheries New Zealand, 2023)

Biodiscovery Platform¹⁰ to 'unlock new economic opportunities by transforming New Zealand's unique natural resources into high value pharmaceutical and bio-based exports'. The intention is to harness New Zealand's rich biodiversity to 'develop world-class, export-ready products in pharmaceuticals, cosmetics, functional foods, and advanced materials' which will create high value jobs, grow business and increase the country's market share.

Aquaculture has long been a source of innovation in the biodiscovery space, and this area is celebrated as a key component of New Zealand's future blue economy, particularly for the Te Taihū region. A thriving and resilient industry will be required to provide a platform from which any new innovative biodiscovery opportunities can follow.

3.1.3 Delivery of Regionally and Nationally Significant Infrastructure

The project will deliver new regionally and nationally significant infrastructure and directly enable better utilisation of existing aquaculture infrastructure in New Zealand as follows:

Regional Significance

- The projects will establish up to 196.5 hectares of new nursery space, up to 70.06 hectares of new mussel farming space, and 15.73 hectares of new flat oyster and seaweed farming space, providing a step change in resilience, diversity and productivity for the Marlborough region.
- The projects will conservatively support 222 jobs in aquaculture in Marlborough. Aquaculture is known for its diverse range of roles and opportunities to develop long lasting career pathways¹¹. Jobs span farm operations, processing, logistics, engineering, and maintenance, with flow on impacts for regional service sectors.
- Increasing the diversity of mussel sites and providing for single year class oyster sites will ensure year round employment across the industry.
- Aquaculture is well recognised for its positive social and community effects.
- The proposal will enhance the productive use of existing infrastructure (wharves, processing facilities and the Havelock Channel) and supports future investment into open ocean farming which in turn aligns with Pathway 2 in the ADP.
- By increasing the resilience and productivity of the existing industry in Marlborough the proposal will strengthen the region's role as the Greenshell mussel capital of the world and safeguard supply continuity.
- Contributions from MFA's Community Enhancement Fund (MFA CEF) will support a range of important local initiatives. Each of the applicants contribute significantly through a range of voluntary programmes to the wellbeing of the regional community.
- In addition, Clearwater have proposed to contribute \$30,000 to a collaborative research programme to gain a better understanding of dusky dolphin presence and behaviour in Admiralty Bay and the drivers of change affecting those factors over time.

National Significance

- The project is aligned with the Government's Aquaculture Strategy, which sets out a \$3 billion export by 2035 target.
- It meets the objectives of Pathways 1, 3 and 4 of the ADP, maximising the value from existing mussel

¹⁰ Ministry of Business, Innovation & Employment., [Government launches Biodiscovery Platform to grow New Zealand's bioeconomy](#) (4 October 2025).

¹¹ Aquaculture New Zealand, [Explore Aquaculture](#) (Aquaculture New Zealand, 2025).

space, enabling lwi growth aspirations and progressing the best diversification opportunity for a high value, technology and market ready, flat oyster industry.

- The Government and sector strategies explicitly recognise the need for new spat nurseries as a pillar for enabling the industry's contribution to New Zealand's export led economic recovery.

Enabling Continued Functioning of Existing Infrastructure

- The nursery space will support increased productivity on existing farms in the Marlborough Sounds, enabling the region to meet its productive potential.
- The proposals add diversity of mussel farming space, thereby presenting opportunities to mitigate impacts from climate change and ensure supply continuity.
- Increased productivity will ensure that the existing land based infrastructure can continue to support economic and social outcomes including jobs in the region.

Each of the businesses contribute to a wide range of local supply chain businesses in various sections, including transport, courier companies, air transport, engineering, marine and domestic electrical, marine and other mechanical services, boat yards, vessel berthage, slipways, local fuel companies, yard leases, boat chandlery, rope, local cotton stocking and local float manufacturers.

3.1.4 Significant Economic Benefits

The NZIER economic assessment in **Schedule D22** models economic impacts through the construction phase and operational phase. For the construction phase the total Marlborough GDP value is \$6.4 million and household spending is \$4.6 million.

Across 30 years of construction and operation NZIER estimates that the project will:

- Increase annual Marlborough gross domestic product (GDP) by approximately **\$84.4 million**
- Increase annual Marlborough household spending by **\$39.8 million**
- Support approximately **222 employees** in Marlborough
- Contribute to a present value increase in Marlborough GDP of **\$865 million** and household spending of **\$409 million** over the 30 year assessment period.

NZIER find that these are economically significant in the context of Marlborough's estimated GDP of \$4.5 billion. They also estimate the project will:

- Increase national GDP by **\$1,283 million** over 30 years
- Increase national government revenue by **\$743 million** over 30 years.

NZIER find that the impacts are wider than increased GDP. They recognise the benefits improving the resilience and reliability of the mussel seed supply, increasing the productivity of hatchery produced spat, increasing mussel production, adding diversity through commercial flat oyster farming and increasing the utilisation of Marlborough's existing processing, transport and marine infrastructure. They note that the increase in household spending reflects higher employment, real wages and labour income across the region. There will also be spillover benefits for Nelson and Tasman. NZIER do not monetise the broader economic, social and environmental benefits and therefore they consider the figures in the report to be conservative estimates of the project's overall contribution.

NZIER conclude that the proposal will generate a material and sustained increase in Marlborough's economic

activity and that the results provide *'strong evidence that the projects would deliver significant regional economic benefits'*.

For Te Tauihu Iwi who will own the Richmond Bay site, the production value of the 1,613 GWT of mussels supported will generate **\$2.66 million in revenue** with **export value of \$9.6 million**. In addition to these economic benefits, the proposal will enable exercise of kaitiakitanga and some iwi marine farming aspirations to be realised. It will also trigger Crown obligations of an additional 20% of the whole project under MCACSA.

3.1.5 Supporting Aquaculture

The mussel nursery proposals are a direct response to a well-recognised production bottleneck for the Greenshell mussel industry. The applications will support the optimisation of Te Hiku and hatchery spat use by creating geographically diverse nursery sites, improving regional resilience to environmental stressors.

Combined with the proposed mussel production sites, the applications will significantly boost the productivity of the Marlborough industry.

The Onapua Bay application will enable innovative farming techniques producing oysters with excellent meat-to-shell ratios, faster growth rates, and taste profiles highly prized in premium domestic and export markets. The additional oyster farming space will allow separation of oyster year classes, enabling international best practice for managing the risk of diseases.

The applications provide preferential access to new water space for Iwi enabling Māori led growth and leadership in spat production. This will support development of Iwi aquaculture capability, economic returns, and intergenerational asset building.

3.1.6 Supporting Climate Change Mitigation and Adaptation

Aquaculture, like all coastal and farming activities, is particularly susceptible to the effects of climate change and there is recognition that *'adapting to the predicted changes in the short term while taking mitigation measures in the long term could be the only way toward sustaining the sector's production'*¹².

While these reports are more than a decade old, they were comprehensive. Those reports provide a fair reflection of the present state of the environment.

Each of the six applications is a response to increasing challenges from climate change to the region's aquaculture industry.

The recent declines in spat availability and retention are considered to be a result of changing environmental conditions including increasing temperatures and potentially pollutants. A recent study in the Marlborough Sounds¹³ found *'a cocktail of biotoxins and organic contaminants, including herbicides and elevated levels of heavy metals'*. Multiple recent scientific reports and monitoring initiatives confirm that water quality in the

¹² Maulu, S., Hasimuna, O.J., Haambiya, L.H., Monde, C., Musuka, C.G., Makorwa, T.H., Munganga, B.P., Phiri, K.J. and Nsekanabo, J.D., [*Climate Change Effects on Aquaculture Production: Sustainability Implications, Mitigation, and Adaptations*](#) (2021) 5 Frontiers in Sustainable Food Systems 609097

¹³ Cawthron Institute, [*Could Marine Pollutants and Climate Change Be Driving the Decline in Mussel Settlement in the Marlborough Sounds?*](#) SHARP (online, 2024)

Marlborough Sounds is declining as a result of land based activities¹⁴¹⁵.

The proposed new nursery sites have been chosen to optimise for cooler water and high nutrient areas, enhancing resilience to climate variability. The nursery sites reduce vulnerability to spat shortages from unpredictable wild sourcing and supports transition toward hatchery reared spat as a climate adaption strategy.

The proposed new mussel growing sites are in the Outer Sounds which are heavily influenced by the cooler oceanic waters of Cook Strait and are sited in bays with existing aquaculture which is known to be productive.

The Onapua Bay application will provide sufficient site diversity to enable single year class farming, which is internationally recognised as best practice, particularly in the face of warming waters. Seaweed aquaculture is well recognised for its potential to contribute a range of climate change mitigations¹⁶.

Farming seafood is one of the most sustainable ways of producing animal protein.¹⁷ New Zealand farmed mussels and oysters have among the lowest carbon footprints of all animal proteins and are similar in impact to plant based proteins like tofu.¹⁸ This research confirms that New Zealand's aquaculture industry is well placed to be part of a future sustainable, lower emissions economy. Greenshell mussels and oysters are a sustainable, nutritious and low carbon protein food.

¹⁴ Peart, R., [Restoring the Marlborough Sounds: An Oceans Reform Case Study](#) (Environmental Defence Society, 2024)

¹⁵ Ulrich, S.C. and Handley, S.J., [From 'Clean and Green' to 'Brown and Down': A Synthesis of Historical Changes to Biodiversity and Marine Ecosystems in the Marlborough Sounds, New Zealand](#) (2020) 198 Ocean & Coastal Management 105349

¹⁶ Bullen, C.D., Driscoll, J., Burt, J. and others, [The Potential Climate Benefits of Seaweed Farming in Temperate Waters](#) (2024) 14 Scientific Reports 1502.

¹⁷ O'Shea, T., Jones, R., Markham, A., Norell, E., Scott, J., Theuerkauf, S. and Waters, T., [Towards a Blue Revolution: Catalyzing Private Investment in Sustainable Aquaculture Production Systems](#) (The Nature Conservancy and Encourage Capital, 2019).

¹⁸ Thinkstep Limited, [Life Cycle Assessment of New Zealand Mussels and Oysters](#) (Thinkstep Limited, 2021).

3.1.7 FTAA Purpose Summary

A summary assessment of each of the proposals against the purpose of the FTAA is provided here:

	Papatua	Guards Bay	Hāpuku Rock	Okuri Bay	Richmond Bay	Onapua Bay
Application type	New mussel nursery space			New mussel (and other species production space)		New species opportunity (and mussels and other species production space)
Consistency with Government Plans and Strategies	Consistent with Pathway 1 of the Aquaculture Development Plan to maximise value from existing space by providing essential nursery space to optimise productivity from existing production space in the Inner Marlborough Sounds. Consistent with Goal 2 of the Spat Supply Work Plan to establish sea based nurseries.			Consistent with the Government Aquaculture Strategy to increase diversity, resilience and productivity by adding a strategically located new production site in the Outer Sounds.	Consistent with Pathway 3 of the Aquaculture Development Plan by providing new space for Iwi led aquaculture developments.	Consistent with Pathway 4 of the Aquaculture Development Plan by enabling the most investment and technology ready high value new shellfish species opportunity.
Regionally and Nationally Significant Infrastructure	Provides a new regionally significant spat nursery for all MFA members to access through ballot and 17 lines set aside for preferential access to iwi members.	Provides a new regionally significant spat nursery which enables optimisation of the PHR mussel factory directly supporting year round jobs.	Provides a new regionally significant spat nursery to enable Clearwater to optimise their spat hatchery investment and boost productivity across a broad range of farms in the region.	Provides a regionally significant Outer Sounds production site with cooler growing waters and decreased rainfall closures to increase and smooth productivity.	Provides a new iwi owned site of a regionally significant scale.	Enables the only feasible opportunity to develop a new nationally significant high value flat oyster farming operation including adopting single year class farming approach. Applicant has existing farms consented for flat oysters in different bays off Tory Channel.
	All sites optimise continued use of existing regional aquaculture infrastructure such as hatcheries, wharves and factories.					
Significant Economic	Supports production value of \$33.94	Supports production value of \$23.65	Supports production value of \$13.06 million	Supports production value of \$1.81 million	Supports production value of	Supports production value of \$1.22 million and export

Benefits	million and export revenue of \$122.42 million.	million and export revenue of \$85.29 million.	and export revenue of \$47.10 million.	and export revenue of \$6.52 million.	\$2.66 million and export revenue of \$9.6 million.	revenue of \$4.4 million.
	Collectively the project will generate \$275 million in indicative export revenue, create 222 full time equivalent jobs and increase national GDP by \$1,283 million over 30 years. Over a 30 year assessment period, the present value of the increase in Marlborough GDP and household spending is estimated at \$865 million and \$409 million respectively.					
Supporting Aquaculture	Provide a direct response to a well-recognised production bottleneck for the Greenshell mussel industry. The applications will support the optimisation of Te Hiku and hatchery spat use by creating geographically diverse nursery sites, improving regional resilience to environmental stressors.			Increases the diversity of production sites to enable climate change adaptation including responding to warming waters and rainfall closures.		Enables innovative and biosecure farming techniques of a highly prized species.
Supporting Climate Change Mitigation and Adaptation	The proposed new nursery sites have been chosen to optimise for cooler water and high nutrient areas, enhancing resilience to climate variability. The nursery sites reduce vulnerability to spat shortages from unpredictable wild sourcing and support transition toward hatchery reared spat as a climate adaption strategy.			Provides cooler Outer Sounds farming space with less rainfall to enable adaptation and mitigation and smooth productivity.	Enables iwi to farm a range of species to support their climate change mitigation and adaptation aspirations.	Enables single year class flat oyster farming which is a direct response to climate change related disease issues.
	All sites enable an increase in farmed shellfish production which are the most carbon efficient source of animal protein.					

Table 5 Assessment against FTAA purpose

3.2 Fast-track Approvals Act Application Requirements

The proposal is a Referred Project under the FTAA, and the applicants, Apex Marine Farm Limited, Clearwater Mussels Limited, Marine Farming Association Incorporated, P H Redwood & Co Limited, and Talley's Limited are authorised persons as set out in the referral decision included as **Schedule H**.

The applicants have entered into an agreement with Maara Moana whereby consent for the Richmond Bay sites will be transferred to that company upon granting. Further detail about the Maara Moana agreement is set out in **Section 5.5**.

The applicants have undertaken the preliminary steps for application for resource consent set out in Sections 30 and 31 of the FTAA as follows:

Provision	Comment	Reference(s)
s30(1)	The application seeks approval for resource consents, and the authorised persons do not hold existing resource consents for the same activity using some or all of the same natural resource.	Application form.
s30(2)	The authorised persons have notified the MDC in writing of the intention to make this application.	Letter from Gascoigne Wicks to Peter Johnson and Gina Ferguson dated 19 August 2026. Refer Schedule C .
s30(3)(b)	MDC have responded that there are no resource consents of that kind.	Schedule C
s31(1)	This application is for aquaculture activities and requires an approval described in Section 42(4)(a) (resource consent) for which the EPA will need to request a recommendation under Section 48 (recommendation in relation to aquaculture activities).	This application.
s31(2)	The applicants do not wish to lodge a pre-request aquaculture agreement.	

Table 6 Assessment against FTAA sections 30 and 31

The application complies with the relevant provisions of Section 42 of the FTAA as follows:

Provision	Comment	Reference(s)
s42(1)(a)	The authorised persons are lodging one substantive application for the project	This application.
s42(2)(a)	The application complies with s43 as set out below.	This section.
s42(2)(b)	The application is being lodged jointly by every authorised person who is the proposed holder of the resource consents being applied for.	Schedule H Referral Decision.
s42(3)(a)	The authorised persons are all eligible to apply for the approvals under the Resource Management Act.	Part 3 Section 3.3.
s42(3)(b)	The application seeks six resource consents, each to be held by the respective applicant for the site, five in their own right and one (Richmond) as a bare trustee for Maara Moana HC Limited.	This application and Schedule H Referral Decision.
s42(4)(a)	The application seeks six resource consents which would otherwise be applied for under the Resource Management Act 1991, except that they are prohibited activities under the relevant plan (rule 16.7.9 of the Marlborough	Part 3 Sections 3.3 and 3.4.

	Environment Plan).	
s42(5)(a)	See above	Part 3 Sections 3.3 and 3.4.
s42(5)(b)	The application seeks six new resource consents, and its time frame is not limited by s30(6)	Part 3 Section 3.3 and Schedule H Referral Decision.
s42(6) to (13)	These provisions do not apply to this application	N/A.

Table 7 Assessment against FTAA Section 42

The application complies with the relevant provisions of Section 43 of the FTAA as follows:

Provision	Comment	Reference(s)
43(1)(a)	The application comprises the FTAA substantive application form and this document and accompanying Schedules.	This application.
43(1)(b)(i)	The application is consistent with the purpose of the Act.	Part 3 Section 3.1, Part 5 Project Benefits, Schedule D22 NZIER Economic Assessment.
43(1)(b)(ii)	The application does not involve stages.	N/A.
43(1)(c)	The application does not involve any ineligible activities as follows: 5(1)(a) and (d) Neither the Crown nor any other person owns, or is capable of owning, the coastal marine area (CMA), as set out in the Marine and Coastal Area (Takutai Moana) Act 2011 (MACAA). 5(1)(b) and (c) Applications have been made for customary marine title over the area. There are no protected customary rights or customary marine title issued for the area. However, consultation has been initiated with the MACAA applicants and is ongoing. 5(1)(e) The project is not occurring within any aquaculture settlement area under Māori Commercial Aquaculture Claims Settlement Act 2004. 5(1)(g) The relevant plans do not include requirements for authorisations prior to making these resource consent applications. MDC has not issued a stay on applications while it requests the use of an allocation method. The application areas are not subject to an authorisation requirement in a Gazette notice. The Minister of Aquaculture has not suspended applications to occupy the CMA for purposes of aquaculture activities. None of the other triggers for ineligible activities are relevant.	This application.
43(1)(d)	The application is lodged by the five authorised persons, Apex Marine Farm Limited, Clearwater Mussels Limited, Marine Farming Association Incorporated, P H Redwood & Co Limited, and Talley's Limited specified in the Referral Decision.	Schedule H Referral Decision and Part 3 Section 3.3.

43(1)(e)(i)	The application complies with the information requirements specified by the Minister, specifically ' <i>an assessment of the biosecurity risks of the proposed project for the spread of marine pests and diseases, along with a corresponding biosecurity management plan.</i> '	Schedule H Referral Decision, Part 6 Section 6.10 and Parts 7 to 12.
43(1)(e)(ii)	The application complies with the information requirements specified for resource consent applications set out in clauses 5 to 7 of Schedule 5. Clauses 8 and 9 do not apply.	Application Form, Part 2 Section 2.1, Part 3 Sections 3.3 and 3.4, Part 6 Environmental Effects, Parts 7 to 12 site specific assessments, Schedule C Consultation Record, Schedule B Cultural Engagement, Schedule D Technical Assessments and Schedule G Planning Assessment
43(1)(f) and (g)	The application is not being made under Section 39 for a determination under sections 23 or 24.	N/A
43(1)(h)	The application is not for a priority project.	N/A
43(1)(i)	The application is being made within the deadline specified in the Referral Decision.	Schedule H Referral Decision
43(1)(j)	The application fees have been paid.	Fees will be paid on invoice.

Table 8 Assessment against FTAA Section 43

The information provided in this application is specified in sufficient detail to satisfy the purpose for which it is required in accordance with Section 44 of the FTAA.

Section 46(2)(b) of the FTAA requires that the substantive application relates solely to a listed project or a referred project. This substantive application includes one small change to that which was referred; the total area sought for consent for the Guards Bay site is now 78.47 hectares, down slightly from the referred area of 78.5 hectares. Note that the referral decision includes a site plan showing 78.5 hectares and narrative describing 76.8 hectares. The background to this discrepancy is set out in **Schedule L**.

On the basis that the area referred for Guards Bay was 78.5 hectares the new size of 78.47 hectares represents a 0.03 hectare change within the margin of error and therefore is not considered to impact the benefits of the project. The total area sought in this substantive application is 282.29 hectares and the economic assessment in **Schedule D22** was prepared on that basis.

There are no other changes to the project from that which was referred.

3.3 Approvals Relating to the Resource Management Act

The application is for six coastal permits for aquaculture activities as defined in the RMA which would otherwise constitute a prohibited activity under rule 16.7.9 of the MEP.

Location	Applicant	Activity
Papatua	Marine Farming Association Incorporated	Coastal permit to establish and operate, using conventional longline methods, a new 90 hectare spat nursery farm, comprising 96 longlines with a total backbone length of 17,280 metres, at Papatua, Te Anamāhanga/Port Gore for the purpose of spat and seed holding and transfer of Greenshell mussel (<i>Perna canaliculus</i>) including all associated discharges.
Guards Bay	P H Redwood & Co Limited	Coastal permit to establish and operate, using conventional longline methods, a new 78.47 hectare spat nursery farm, comprising 100 longlines with a total backbone length of 21,511 metres, in Guards Bay, Outer Sounds for the purpose of spat and seed holding and transfer of Greenshell mussel (<i>Perna canaliculus</i>) including all associated discharges.
Hāpuku Rock	Clearwater Mussels Limited	Coastal permit to establish and operate, using conventional longline methods, a new 28.03 hectare spat nursery farm in two blocks (of 15 hectares and 13.03 hectares) comprising 43 longlines with a total backbone length of 5,480 metres, at Hāpuku Rock, Admiralty Bay, for the purpose of spat and seed holding and transfer of Greenshell mussel (<i>Perna canaliculus</i>) including all associated discharges.
Okuri Bay	Clearwater Mussels Limited and Talley's Limited	Coastal permit to establish and operate, using conventional longline methods, a new 27.89 hectare marine farm in two blocks (of 24.46 hectares and 3.43 hectares) comprising 32 longlines with a total backbone length of 6,757 metres, in Okuri Bay, Outer Sounds for the purposes of marine farming of Greenshell mussel (<i>Perna canaliculus</i>), Blue mussel (<i>Mytilus galloprovincialis</i>), Scallop (<i>Pecten novaezelandiae</i>), Dredge oyster (<i>Ostrea chilensis</i>), Pacific oyster (<i>Crassostrea gigas</i>), Kina (<i>Evechinus chloroticus</i>), Pāua (<i>Haliotis iris</i> , <i>Haliotis australis</i> , <i>Haliotis virginea</i>), Cockle (<i>Austrovenus stutchburyi</i>), Pipi (<i>Paphies australis</i>), Kopakopa/ribbed mussels (<i>Aulacomya atra maoriana</i>), Geoduck (<i>Panopea zealandica</i>) and Seaweeds (<i>Macrocystis pyrifera</i> , <i>Ecklonia radiata</i> , <i>Gracilaria spp</i> , <i>Pterocladia lucida</i> , <i>Lessonia variegata</i> , <i>Ulva lactuca</i> and <i>Asparagopsis armata</i>) including all associated discharges.
Richmond Bay	Apex Marine Farm Limited, Clearwater Mussels Limited, Marine Farming Association Incorporated, P H Redwood & Co Limited, and Talley's Limited (on behalf of Maara Moana.	Coastal permit to establish and operate, using conventional longline methods, a new 42.17 hectare marine farm in three blocks (of 25.48 hectares, 9.09 hectares and 7.6 hectares) comprising 72 longlines with a total backbone length of 12,650 metres, in Richmond Bay, Te Hoiere/Pelorus Sound for the purposes of marine farming of Greenshell mussel (<i>Perna canaliculus</i>), Blue mussel (<i>Mytilus galloprovincialis</i>), Scallop (<i>Pecten novaezelandiae</i>), Dredge oyster (<i>Ostrea chilensis</i>), Pacific oyster (<i>Crassostrea gigas</i>), Kina (<i>Evechinus chloroticus</i>), Pāua (<i>Haliotis iris</i> , <i>Haliotis australis</i> , <i>Haliotis virginea</i>), Cockle (<i>Austrovenus stutchburyi</i>), Pipi (<i>Paphies australis</i>), Kopakopa/ribbed mussels (<i>Aulacomya atra maoriana</i>), Geoduck (<i>Panopea zealandica</i>) and Seaweeds (<i>Macrocystis pyrifera</i> , <i>Ecklonia radiata</i> , <i>Gracilaria spp</i> , <i>Pterocladia lucida</i> , <i>Lessonia variegata</i> , <i>Ulva lactuca</i> and <i>Asparagopsis armata</i>) including all associated discharges.
Onapua Bay	Apex Marine Farm Limited	Coastal permit to establish and operate, using conventional longline methods, a new 15.73 hectare marine farm in three blocks (of 7.5 hectares, 5.43 hectares and 2.8 hectares) comprising 66 longlines with a total backbone length of 11,276 metres, in Onapua Bay, Kura Te Au, for the purposes of marine farming of Flat oyster (<i>Ostrea chilensis</i>), Greenshell mussel (<i>Perna canaliculus</i>), Blue mussel (<i>Mytilus</i>

		<i>galloprovincialis</i>), Scallop (<i>Pecten novaezelandiae</i>), Dredge oyster (<i>Ostrea chilensis</i>), Pacific oyster (<i>Crassostrea gigas</i>), Kina (<i>Evechinus chloroticus</i>), Pāua (<i>Haliotis iris</i> , <i>Haliotis australis</i> , <i>Haliotis virginea</i>), Cockle (<i>Austrovenus stutchburyi</i>), Pipi (<i>Paphies australis</i>), Kopakopa/ribbed mussels (<i>Aulacomya atra maoriana</i>), Geoduck (<i>Panopea zealandica</i>) and Seaweeds (<i>Macrocystis pyrifera</i> , <i>Ecklonia radiata</i> , <i>Gracilaria spp</i> , <i>Pterocladia lucida</i> , <i>Lessonia variegata</i> , <i>Ulva lactuca</i> , <i>Asparagopsis armata</i> and <i>Undaria pinnatifida</i>) including all associated discharges.
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Table 9 RMA approvals sought

The applicants are also seeking aquaculture decisions for each coastal permit under Section 80 of the FTAA as set out in **Section 3.5** below.

The relationship of the FTAA with the RMA is outlined in Schedule 5 which provides the consent application process that applies instead of the standard RMA consent application process. Notably:

Provision	Comment/Reference
Clause 5(1)(d) and 5(6) require details regarding owners and occupiers of adjacent land.	A record of adjacent landowners and existing legal interests if provided in Schedule K .
Clause 5(4) requires a consent application to provide an assessment of an activity's effects on the environment covering the information in clauses 6 and 7	Part 4 of this application provides the context to the activity. Part 6 describes the Marlborough Sounds including the cultural environment. Parts 7 to 12 describe the activity for each site and each site's existing environment. Part 6 provides an assessment of environmental effects (AEE) for common effects and Parts 7 to 12 describe site specific effects and proposed mitigations. These are informed by the technical assessments provided in Schedule D . Proposed consent conditions are provided in Schedule F . Part 3 Section 3.6 and Schedule C provide a record of consultation with affected persons. Schedule B provides a record of cultural engagement.
Clauses 14 to 16 and 17(5) set out provisions for making an aquaculture decision.	Considerations for making an aquaculture decision are set out in Section 3.5 of this application.
Clause 17(1)(a) requires that the greatest weight be given to the purpose of the FTAA.	Section 3.1 sets out how this application meets the purpose of the FTAA with reference to relevant sections of the application including the economic assessment provided in Schedule D .
Clause 17(1)(b) requires consideration of Parts 2,3,6 and 8 to 10 of the RMA.	Parts 8 to 10 of the RMA are not relevant to this application
Part 2 The purpose of the RMA (Section 5), matters of national importance (Section 6), other matters (Section 7) and the Treaty of Waitangi (Section 8)	Section 3.4 of this application provides a summary assessment of the application against RMA Parts 2, 3 and 6 with reference to the detailed planning assessment provided in
Part 3 A resource consent is required for this activity	

including for discharges.	Schedule G.
Part 6 Have regard to the actual and potential effects on the environment, any measures to offset or compensate for adverse effects, the relevant provisions of policies and plans and any other matter considered relevant to determine the application	
Clause 17(4) provides that provisions in the RMA that would result in an application being declined, including that an activity is prohibited under the RMA, do not mean the application must be declined under the FTAA	There are no identified reasons to decline as set out in Section 3.4 of this application.
Clause 17(7) refers to sections 123 and 124A of the RMA which include that consent terms for aquaculture activities can be between 20 and 35 years (unless certain requirements are met to apply a shorter term than 20 years).	This application is for a consent term of 35 years with a lapse period of 3 years.

Table 10 Assessment against FTAA Schedule 5

3.4 Planning Assessment Summary

The Planning Assessment provided in **Schedule G** identifies the relevant planning instruments as follows:

- The Resource Management Act 1991 (RMA)
- The New Zealand Coastal Policy Statement 2010 (NZCPS),
- The Marlborough Environment Plan (MEP), including Variation 1,
- Relevant Iwi Management Plans

Each of the six applications comprise a prohibited activity under rule 16.7.9 of the MEP. Section 42(5) of the FTAA allows a substantive application to seek consent for an activity that is prohibited under the RMA, and clause 17(4) of Schedule 5 confirms that prohibited status is not a reason the application must be declined and clause 17(1) requires that the greatest weight be given to the purpose of the FTAA.

As set out in **Schedule G**, the prohibited status does not mean that the effects of aquaculture are adverse. The MEP used prohibited status outside Aquaculture Management Areas (AMAs) as a tool to allocate coastal space for the existing industry. However, it also includes policies that guide assessment of new space through future plan change processes in anticipation that these could be enabled subject to the detailed and site specific assessments which have been undertaken in this application.

This application is consistent with Part 2 (sections 5, 6, 7 and 8) of the RMA. The project will deliver significant economic and social benefits, and some positive ecosystem services and cultural benefits through enabling iwi aspirations in aquaculture. The potential environmental effects have been comprehensively assessed and determined to be no more than minor and/or appropriate in their location and consistent with the NZCPS. Effects on the seabed are confined to the area beneath and close to the structures and reverse within 5 to 11 years after a farm is removed. Farmed shellfish and seaweed are a sustainable, nutritious and low carbon food, grown in their natural habitat without feed or additives. In that sense the activity comprises cultured nature.

The applicants undertake their activities in accordance with best management practices and the proposed conditions set out a range of mitigations including operation of Biosecurity Management Plans and Marine Mammal Management Plans. Drafts of those plans are provided in **Schedule E**.

The applications are consistent with the NZCPS as follows:

NZCPS Policy		Assessment
Policy 8	Aquaculture	Policy 8 of the NZCPS requires aquaculture to be provided for in appropriate places and directs that its ecological, social, economic and cultural benefits be taken into account. That provision is being constrained by the absence of spat nursery capacity. The proposal addresses an urgent climate adaptation need by providing high quality spat nursery capacity and adding diversity and resilience through new mussel production sites and single year class flat oyster farming.
Policy 11	Indigenous biological diversity	- The sites are located away from any ESMS, reefs and biogenic seabed habitat. There is no evidence of adverse effects on significant indigenous biodiversity, or significant adverse effects on other indigenous biodiversity, consistent with Policies 11(a) and 11(b) of the NZCPS. - There may be negligible to medium effects on dusky dolphin habitat at Hāpuku Rock, although the species is classified as Not Threatened and other environmental factors may be influencing its behaviour in the area. Effects on other marine mammals and all mammals from other sites are expected to be no more than minor. Marine Mammal Management Plans are proposed for all sites in the draft conditions, and a draft is provided in Schedule E1. - Effects on the endangered king shag are not anticipated, including in relation to the colony south of Papatua at the Hunia Peninsula, and recent research shows the birds forage in and roost on marine farms. A draft condition requires vessels to avoid transit within 200 metres of colonies. No adverse effects on other seabirds are anticipated. - Biosecurity effects will be no more than minor. Biosecurity Management Plans are proposed for all sites in the draft conditions. A second year class site for flat oyster farming at Onapua Bay (in accordance with Bonamia TAG recommendations and subject to any Biosecurity Act permissions required), will enable biosecure production of this high value species.
Policies 13 and 15	Preservation of natural character and natural features and natural landscapes	Some of the applications sit within mapped outstanding or high value areas, and there will be some adverse visual effects. Those effects are minimised by the low lying, recessive structures, occupy a small proportion of the mapped areas, and sit against an adjoining primary production landscape. Peer reviewed landscape assessments find effects on mapped values to be no more than minor. Shellfish and seaweed farming can also enhance the biotic components of natural character.
Policy 6	Activities in the coastal environment	Navigation through and around the farms, and access to and along the shore, will be maintained, and public use will not be unreasonably restricted. Effects on fisheries resources will be no more than minor and in some respects positive, with recreational fishing likely to benefit from the habitat the farms create.
Policy 2	The Treaty of Waitangi, tangata whenua and Māori heritage	- The application recognises the principles of the Treaty of Waitangi and provides for the exercise of kaitiakitanga. - New mussel farming space is provided specifically for Te Taihu iwi at Richmond Bay as well as preferential access to spat nursery lines at Papatua.

Table 11 Summary of assessment against the NZCPS

Although the FTAA process cannot create new AMAs the applications are generally consistent with the policies the MEP applies to new AMAs. The principal inconsistency is in landscape and natural character, as three of the applications are within areas mapped as having outstanding natural landscape and/or character value. However, peer reviewed landscape assessments for each site demonstrate the effects on the values of those overlays will be no more than minor. Other areas of potential inconsistency relate to uncertainty regarding dusky dolphins at Hāpuku Rock, for which Clearwater has proposed contribution to a research programme, the potential for effects on the navigation experience at Onapua Bay, and siting outside the 'coastal ribbon' for Papatua and Guards Bay. However, there are other farms in the Marlborough Sounds that do not comply with those policies.

The applicants have undertaken initial assessments against the available iwi management plans and consider the proposals to be consistent with those plans.

Taken overall, and as concluded in **Schedule G**, while the proposal is a prohibited activity under the MEP it is broadly consistent with the NZCPS and the MEP and constitutes sustainable management of the coastal marine area. More importantly, the proposal is consistent with the purpose of the FTAA. Any adverse effects can be appropriately managed through best management practices and the proposed conditions including the proposed management plans.

3.5 Aquaculture Decision

The purpose of an aquaculture decision¹⁹ is to determine whether a proposed aquaculture activity would unduly affect commercial, recreational, or customary fishing. The undue adverse effects test (UAE) is applied by the chief executive of FNZ under Subpart 1 of the Fisheries Act 1996 (Fisheries Act) to assess the effects of a proposed marine farm on fishing before making an aquaculture decision.

Under Section 116A of the RMA, a coastal permit for a new aquaculture activity cannot commence unless it is in accordance with an aquaculture decision made under the Fisheries Act. The standard process is that once a complete application has been accepted, the consent authority must request an aquaculture decision from FNZ, and the coastal permit can only be granted and exercised to the extent that it is consistent with that aquaculture decision.

Under the FTAA, at the same time the EPA provides the substantive application to the panel convenor, it must request a recommendation on an aquaculture decision from FNZ. The purpose of the recommendation on an aquaculture decision is to inform a decision on the same by the panel.

To inform its recommendation, FNZ can seek information or consult with various parties with fishing interests that may be affected by the application. FNZ must provide its recommendation within 5 working days of receiving draft conditions of consent from the panel.

Once the panel has received that recommendation, it is responsible, under clause 20 of Schedule 5, for making the aquaculture decision at the same time as determining the substantive application for the aquaculture activity.

Once the panel has received a recommendation, it must then make an aquaculture decision in accordance with

¹⁹ Fisheries New Zealand., [The undue adverse effects test on fishing](#) (February 2025).

clause 20 of Schedule 5, at the same time as determining the substantive application for the aquaculture activity.

1) In making an aquaculture decision, the panel must—

a) take into account, giving the greatest weight to subparagraph (i),—

i) the purpose of this Act; and

ii) sections 8 to 10 and 186GB(1) and (2) of the Fisheries Act 1996; and

b) have regard to the recommendation of the relevant chief executive made under clause 15.

In this respect the FTAA puts greater weight on the delivery of development projects with significant regional or national benefits when making an aquaculture decision than a standard RMA consenting pathway.

Section 8 of the Fisheries Act sets out its purpose to '*provide for the utilisation of fisheries resources while ensuring sustainability*'. Section 10 sets out the information principles that should apply. Section 186GB sets out the relevant matters for consideration:

- The location of the proposed marine farm in relation to fishing areas;
- The likely effect of the proposed marine farm on fishing, including the proportion of any fishery that would be affected;
- The degree that the proposed marine farm would exclude fishing;
- The extent that fishing for a species in the proposed marine farm area could occur in other areas;
- The extent that occupation of the coastal marine area by the proposed marine farm would increase the cost of fishing; and
- The cumulative effect on fishing of any authorised aquaculture, including any structures authorised before the introduction of any relevant stock to the quota management system.

The outcome of the aquaculture decision will be determined under the Fisheries Act 1996 and the FTAA by the relevant decision makers, having regard to the statutory matters outlined above. This application does not seek to predetermine the outcome of an aquaculture decision, but the effects on fisheries resources, recreational fishing and customary fishing have been assessed in sections 6.9, 6.15 and 6.17 respectively to inform that decision-making process. We have written to FNZ and that correspondence is enclosed within **Schedule C**.

3.6 Consultation

3.6.1 Introduction

The applicants and their agents have undertaken significant consultation and engagement with local authorities, government agencies, Te Taihū iwi and stakeholders in the process of preparing this application. **Schedule C** provides a summary of all relevant consultation undertaken to date (including at the referral stage) and resulting amendments to the application from this consultation.

The following sections summarise the consultation that has been undertaken with relevant local authorities (**Section 3.6.2**), relevant iwi authorities, hapū and treaty settlement entities and relevant applicant groups with applications for Customary Marine Title (**Section 3.6.3**), and relevant administering agencies (**Section 3.6.4**). No further consultation has been undertaken with other parties (**Section 3.6.5**).

A record of engagement and summary of matters raised through Te Taihū pou taiao forums is provided in **Schedule B2**.

3.6.2 Relevant Local Authorities

The relevant local authority is the Marlborough District Council (MDC).

The applicants engaged with MDC during preparation of the referral application commencing in April 2025 and including meetings with the Mayor, the Chief Executive and officers. Officers reviewed the draft application and agreed to liaise on a set of draft consent conditions to be included with the substantive application.

During engagement on preparation of the substantive application discussions included the draft consent conditions, the draft management plans and an initial comment from the Harbourmaster.

Changes made as a result of consultation with MDC include:

- Consent conditions that constrain the proposed nursery sites, Papatua, Guards Bay and Hāpuku Rock from being operated as production farms.
- Consent conditions requiring beach clean ups and preventing vessel transit within 200 metres of king shag sites.
- Further detail in the application document regarding lighting and marking of farms.
- Other changes that had been implemented earlier in the process (as set out in Tables A, B1 and B2 of Schedule C).

The applicants have provided MDC with a link to the full application at the time of lodging.

3.6.3 Relevant Māori Groups

The project sits within Te Taihū o Te Waka-a-Māui, the prow of the waka of Māui. Today, eight iwi form the tangata whenua of this region, with whakapapa lines from the Kurahaupō, Tainui and Tokomaru waka; Ngāi Tahu (via Te Rūnanga o Kaikōura) holds adjacent takiwā to the south-east. The cultural environment including relevant Treaty settlements, Marine and Coastal Area Act applicant groups and customary fishing groups is set out in **Section 6.2** below.

In preparation of the referral application, the applicants engaged Thirdspace Aotearoa to facilitate Phase 1 of an iwi engagement plan. This included structured and responsive outreach to ngā iwi of Te Taihū, Te Rūnanga o Kaikōura, and relevant MACAA applicant groups. Engagement included provision of briefing material and technical information, access to supporting reports and assessments, hui and recorded kōrero, with key themes and issues synthesised for consideration in subsequent project planning.

Feedback emphasised rangatiratanga, kaitiakitanga, cumulative Sounds-scale effects, protection of mauri, mahinga kai and culturally significant sites, sustainable regional spat supply, biosecurity, and clarity of mandate and governance. The resulting report recommended that Phase 2 be co-designed with each iwi, remain responsive to distinct interests and preferred engagement methods, and include timely focused hui on unresolved matters. The Phase 1 report is included as **Schedule B1**.

Thirdspace Aotearoa continued to facilitate engagement through Phase 2 in preparation of the substantive application. The Phase 2 report is included as **Schedule B2**. The concluding observations set out the recurring discussion themes as cumulative effects, carrying capacity, ecological health, customary interests, cultural values, monitoring, restoration opportunities and the need for sufficient information to support robust consideration of the applications. Particular attention was given through discussion to the Richmond Bay

proposal where concerns relating to ecological health, cumulative effects, environmental recovery and future development remained central topics. The report identified that the collective discussions assisted information sharing, identification of common issues and informed consideration of the proposals. While the report identified that the EclA had not yet been sent to iwi representatives it was subsequently sent to them as soon as it was finalised on 2 September.

It is recognised that as the applications move into the substantive phase, individual iwi may continue their own assessment processes and provide further advice and input on the application(s).

The proposed conditions in **Schedule F** include placeholder conditions which set out a framework for identifying and addressing potential adverse effects on cultural values or mauri. The applicants anticipate further engagement on a site by site basis with regard to these conditions.

The applicants also engaged throughout the process with Maara Moana, commencing in April 2025, about creating waterspace for iwi in Richmond Bay. An agreement has subsequently been signed whereby

- The farmers will execute a transfer of any space consented in Richmond Bay within 15 working days of granting of consent.
- MFA will provide preferential (non-balloted) access of up to 17.7% of any nursery lines consented at Papatua under the standard MFA lease terms and allocation methodology for the site.

Maara Moana has written a letter to the applicants (Schedule B3) which records that they have a mandate to secure the Richmond Bay waterspace and thanked the applicants for their support for iwi aspirations.

3.6.4 Relevant Administering Agencies

The applicants undertook engagement with Fisheries New Zealand (FNZ), Biosecurity New Zealand (BNZ) and the Department of Conservation (DOC) during preparation of the referral application. Relevant team members from each agency reviewed the draft application and provided feedback, and the referral application included responses to that feedback. The applicants and DOC agreed to liaise on draft consent conditions ahead of lodging the substantive application.

The referral decision identified the relevant portfolio Ministers as the Minister for the Environment, the Minister for Conservation and the Minister for Oceans and Fisheries.

Engagement with DOC has focussed on marine mammals as detailed in **Schedule C**. As set out in **Section 6.7** and **Schedule D13** the applicants have made changes to the proposed MMMP. DOC has also indicated support in principle for the research programme proposed at Hāpuku Rock instead of baseline marine mammal monitoring, acknowledging the difficulty of isolating farm related effects from broader environmental drivers. Further detail is provided in **Section 9.6.6**.

Other changes made as a result of consultation with DOC include:

- The addition of a condition regarding the management of debris
- Further detail added into the application document regarding the consenting history of Papatua.

Engagement with BNZ has focussed on flat oyster farming at Onapua Bay. The applicants have provided BNZ with draft consent conditions and draft Biosecurity Management Plans for Onapua Bay and the other sites. As a

result of engagement with BNZ the application has been updated with regard to its process for reviewing the Bonamia Controlled Area Notice (CAN). Further detail about the relevance of the CAN is set out in **Section 12.6**.

3.6.5 Other Consultation

The applicants have also consulted with Maritime New Zealand, Aquaculture New Zealand and the Ministry for Cities, Environment, Regions and Transport (formerly MfE).

Letters have been sent to Te Ohu Kaimoana, Seafood New Zealand and Southern Inshore Limited/Challenger Scallop Enhancement Limited informing them of the intention to make the application and offering to answer any questions in the meantime.

Further detail is set out in **Schedule C**.

No other parties have been identified as potentially affected to the degree that would warrant pre-application consultation, but the applicants remain open to engagement with any interested parties as appropriate.

Part 4 Industry and Geographic Context

Part 4 establishes the biological, industry and geographic foundation that underpins the case for these FTAA applications. It functions as shared technical background for the application package, to set the scene for the benefits set out in **Part 5**, and the effects set out in Parts 7 to 12. It represents the collective industry knowledge and experience of the applicants that underpinned identification of the need for and location of these applications.

Part 4A provides the context for the mussel applications. **Sections 4A.1 and 4A.2** establish the biological and environmental fundamentals that determine mussel performance; **Section 4A.3** sets out the production and climate constraints currently facing the industry; and **Sections 4A.4 and 4A.5** demonstrate why the Outer Sounds, and Marlborough more broadly, are positioned to address those constraints at scale. Many of the key marine farming terms and concepts defined in Table 2 are used in these sections.

Part 4B provides the context for the high value flat oyster application at Onapua Bay with **Section 4B.1** setting out production and market fundamentals and **Section 4B.2** the regional case for Marlborough.

Part 4A Mussel Context

4A.1 Industry and Production Fundamentals

4A.1.1 Species and Biology Basics

New Zealand's mussel industry has harnessed the potential of an endemic species and is selling it to the world. Green-lipped mussels (*Perna canaliculus*), trademarked internationally as Greenshell™ mussels, are found and cultivated exclusively in New Zealand's coastal waters, with a natural distribution ranging from Cape Reinga in the north to Stewart Island in the south. While morphologically similar to the Asian green mussel (*Perna viridis*) and Asian brown mussel (*Perna perna*), Greenshell mussels are a rarity when compared to the vast natural and farmed distributions of the various *Mytilus* species globally.

Greenshell mussels are broadcast spawners, typically reaching sexual maturity within their first year at a shell length of around 40 mm, with spawning generally triggered by changing water temperatures. After fertilisation, larvae remain planktonic for three to five weeks before settling onto a substrate. Critically, post settlement juveniles (spat) retain the ability to re-enter the water column by releasing a 'mucus parachute', allowing them to relocate multiple times in search of more favourable growing sites (a behaviour known as byssopelagic migration).

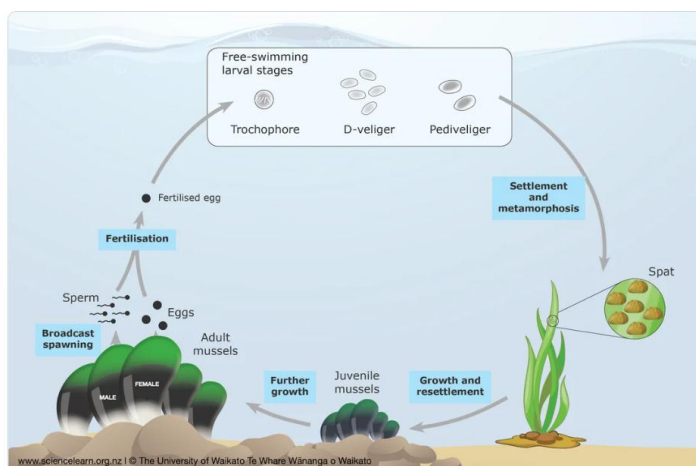


Figure 3 Greenshell mussel life cycle

4A.1.2 Farming Methods

Greenshell mussels are cultivated exclusively using a longline/continuous rope methodology. This was not the industry's first approach, with early pioneers initially trialling the Spanish style rafts (bateas) commonly used for blue mussel farming in regions such as Galicia. Raft culture proved to be unsuitable for Greenshell mussels, which prompted a shift to the Japanese longline method, which, after considerable 'No.8 wire' adaptation, proved effective and allowed for the high levels of mechanisation that facilitated the industry's rapid growth.

The longline system relies on backbone ropes anchored to the seafloor and kept afloat by large plastic buoys. A single 100 to 300 metre backbone can support 3,000 to 5,500 metres of culture rope, depending on water depth and dropper spacing, illustrating the scale of production achievable from a single farming structure.

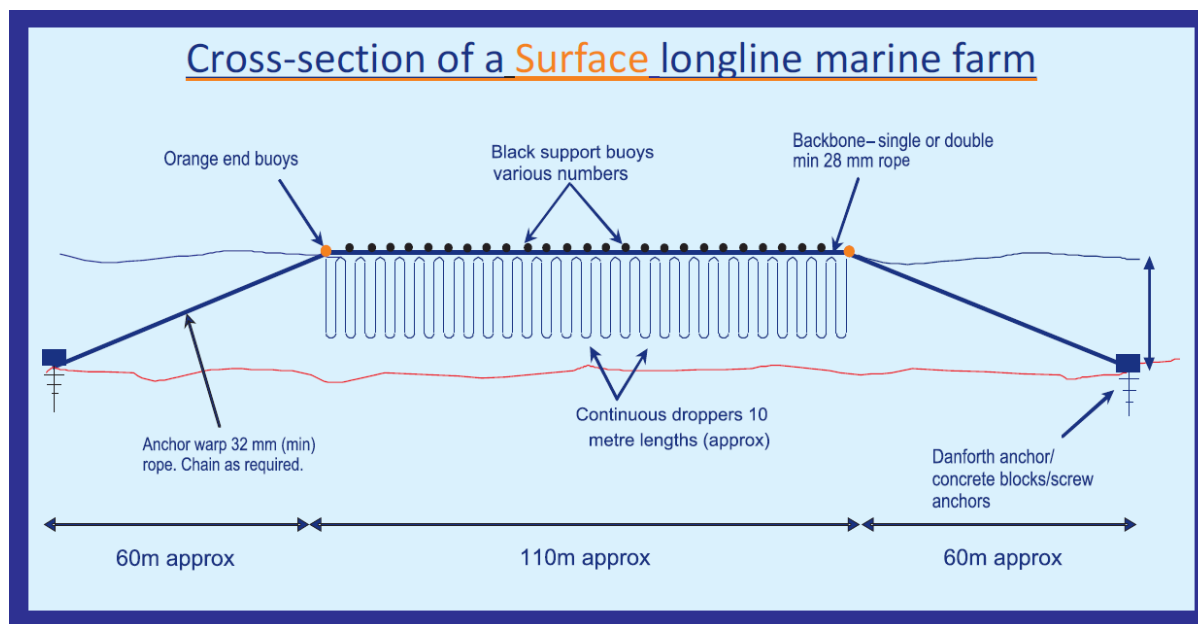


Figure 4 MFA cross section of a typical surface longline used for mussel production.

4A.1.3 Relevance to the Application

The wide natural range, adaptability and simple habitat requirements of Greenshell mussels mean they are exceptionally well suited to aquaculture production. However, these same biological traits are precisely what create the early life stage production challenges the industry is currently facing. Understanding the mussel's biology and the longline farming system is therefore a prerequisite for understanding why site selection matters to production outcomes, and why particular characteristics of water space, rather than water space in general, are being sought through these applications.

4A.2 Drivers of Productivity

Mussel productivity is inherently linked to primary productivity in the surrounding waters and is therefore shaped by a complex web of interrelated environmental factors. It is not uniform across sites or seasons. Water temperature, nutrient availability and current velocity are widely recognised as key drivers of primary productivity, and together they underpin the wide mussel productivity range observed across the industry, from as little as 2 kg per metre of rope under poor conditions to as much as 10 kg per metre under optimal circumstances.

A high level overview of the most important drivers²⁰¹²²²³²⁴²⁵ is provided in Table 12 below:

What mussels eat	Greenshell mussels are filter feeders and depend on seston extracted from the water column to meet their nutritional needs. They capture a wide range of suspended particles and then sort them, ingesting the organic fraction (such as phytoplankton, zooplankton and organic detritus) while selectively rejecting much of the inorganic material as pseudofaeces. In most areas, phytoplankton are the predominant food source, with zooplankton and fine organic detritus also contributing to the diet. While the exact drivers of mussel performance remain poorly understood, it is believed that particle size plays an important role. For example, where spat prefer to consume predominantly smaller phytoplankton, adult mussels will readily consume larger phytoplankton and zooplankton species²⁶.
Nutrient availability	- Primary productivity in marine environments is generally limited by the availability of key nutrients that fuel phytoplankton growth, which in turn forms the base of the food web that other species rely on. In coastal and estuarine waters, nitrogen is widely recognised as the dominant limiting nutrient, with increases or decreases tending to have an outsized effect on phytoplankton biomass. Phosphorus can play a secondary but locally significant role, limiting phytoplankton blooms in some areas. - Where upwelling events bring cooler, deep oceanic waters to the surface, they carry with them nitrogen, phosphorus and other dissolved nutrients that have accumulated at depth, effectively refuelling the euphotic zone. This nutrient injection triggers phytoplankton blooms that translate directly into increased primary productivity. Alongside oceanic nutrient sources, land derived nutrients entering coastal waters via river discharge and catchment runoff are a contributor to nearshore productivity. - The relationship of mussels with nutrients is not just as a consumer. Mussels excrete urea which is biologically available to phytoplankton and can stimulate growth. Mussels are themselves in larval form are zooplankton and consumed by other species.
Water temperature	Water temperature influences primary productivity both directly, through its effect on phytoplankton metabolic rates, and indirectly, through its role in structuring the water column. Within a suitable range, warmer temperatures generally increase phytoplankton growth, however,

²⁰ Azizan, A., Venter, L., Zhang, J., Young, T., Ericson, J., Delorme, N., Ragg, N., & Alfaro, A. (2024). *Interactive effects of elevated temperature and Photobacterium swingsii infection on the survival and immune response of marine mussels (Perna canaliculus): A summer mortality scenario*. Marine Environmental Research, 196, 106428.

<https://doi.org/10.1016/j.marenvres.2024.106392>.

²¹ Broekhuizen, N., Hadfield, M., & Plew, D. (2015). A biophysical model for the Marlborough Sounds Part 2: Pelorus Sound. Marlborough District Council, Client Report No. CHC2014-130

²² Chiswell, S., Zeldis, J., Hadfield, M., & Pinkerton, M. (2017). Wind-driven upwelling and surface chlorophyll blooms in Greater Cook Strait. *New Zealand Journal of Marine and Freshwater Research*, 51(4), 465–489.

<https://doi.org/10.1080/00288330.2016.1260606>

²³ Cranford, P., Ward, J., & Shumway, S. (2011). Bivalve filter feeding: Variability and limits of the aquaculture biofilter. In *Shellfish Aquaculture and the Environment*. doi: [10.1002/9780470960967.ch4](https://doi.org/10.1002/9780470960967.ch4).

²⁴ Zeldis, J., Howard-Williams, C., Carter, C., & Schiel, D. (2008). ENSO and riverine control of nutrient loading, phytoplankton biomass and mussel aquaculture yield in Pelorus Sound, New Zealand. *Marine Ecology Progress Series*, 371, 131–142. [Doi: 10.3354/meps07668](https://doi.org/10.3354/meps07668)

²⁵ NIWA. (2015). [The history of benthic change in Pelorus Sound \(Te Hoiere\)](#), Marlborough. Marlborough District Council, Client Report No. NEL2015-001

²⁶ Zeldis, J., Hadfield, M., & Booker, D. (2013). Influence of climate on Pelorus Sound mussel aquaculture yields: Predictive models and underlying mechanisms. *Aquaculture Environment Interactions*, 4(1), 1 - 15.

<https://doi.org/10.3354/aei00066>.

	warming can also result in stratification. Because the nutrients that fuel phytoplankton growth are typically replenished from deeper water, strong or prolonged stratification cuts off this supply. This dynamic underlies the classic seasonal productivity pattern observed in temperate seas, where winter storms mix nutrient rich water throughout the column, spring warming reestablishes light and moderate stratification that produces a strong bloom, and the onset of stable summer stratification then suppresses further nutrient replenishment and constrains productivity despite optimal light. Cooler, well mixed or upwelling influenced waters therefore tend to sustain higher and more consistent productivity than persistently warm, stratified waters, since mixing continually resupplies the nutrients that would otherwise become depleted at the surface. • Water temperature also affects mussel performance and survival directly. Elevated temperatures cause physiological stress, reduced growth and progressively increased mortality. This chronic heat stress weakens immune function ahead of outright mortality, leaving mussels more vulnerable to opportunistic bacterial pathogens and more susceptible to harmful algal blooms. Together, these compounding pressures, elevated stress, weakened immunity and greater disease and toxin susceptibility, are key drivers of the 'summer mortality' events that periodically affect New Zealand mussel farms.
Current velocity	• High current velocities tend to result in stronger horizontal and vertical mixing, which in turn maintains cooler overall water temperatures and increases nutrient availability throughout the water column. As a result, areas with strong currents generally support higher primary productivity than weakly flushed sites, where warmer, stratified waters deliver less food supply and increased temperature stress. High current velocities also act as a conveyor belt for food, continually delivering fresh seston to static filter feeders such as Greenshell mussels. As more food passes through the mussels' filtration range, filtration and ingestion rates can increase, thereby boosting both growth and condition.

Table 12 Mussel productivity drivers

In simple terms, not all water space is created equal from a productivity standpoint. While the exact drivers remain elusive, nearly 50 years of industry experience and scientific research has shown that sites combining good nutrient availability, cooler water temperatures and higher current velocities deliver superior mussel retention, growth, survival and overall performance. Rather than seeking water space generally, the applicants have targeted sites that combine these key environmental drivers. Each application has a different combination of these characteristics.

4A.3 Constraint and Climate Resilience Case

The key constraints currently limiting the growth of the New Zealand mussel industry, are spat supply, seed retention and the compounding effect of climate variability and warming waters on both. These issues are further compounded by the challenges in accessing suitable nursery grade water space.

4A.3.1 Spat Constraints

Access to mussel spat and seed is widely acknowledged as the biggest production constraint faced by the New Zealand industry. Whilst wild caught and beach cast sources are able to meet the needs of industry in some years, the inherent variability of these naturally occurring sources often results in industry wide spat shortages.

For context, the three spat sources primarily used by the New Zealand mussel industry are described below.

Te Hiku spat	• Around 75 percent of the mussel spat used by the New Zealand industry is collected from a single location - Te Oneroa-a-Tōhē/90 Mile Beach or 'Te Hiku'. The coastal waters off this beach support extensive wild Greenshell mussel beds that produce large numbers of larvae. What makes the area distinctive is the presence of several red seaweed species that provide ideal settlement substrates. These semi buoyant seaweeds move in large quantities along the seafloor, and each fragment can accumulate hundreds of thousands of mussel larvae as it drifts shoreward. When conditions align, the seaweed and attached spat strand on the beach in large 'spatfall' events. • The arrival of spat laden seaweed at Te Hiku depends on a period of low swell, typically associated with easterly winds on the opposing coast. Without this combination of reduced wave energy and offshore winds, the shoreward drift of bottom hugging seaweed is counteracted by undertow generated by breaking waves, preventing large scale strandings. • Spat harvested on seaweed from Te Hiku is managed within New Zealand's Quota Management System as part of GLM 9 under the Fisheries Act 1996. In some years the effective TACC has been exceeded and additional catch taken under deemed value arrangements, but the TAC/TACC settings have been assessed as consistent with maintaining the sustainability of this spat resource.
Wild caught spat	• The second method for obtaining spat also relies on the natural settlement behaviour of mussel larvae. By deploying 'fluffy' ropes that mimic preferred settlement substrates in areas of high larval abundance (such as Wainui Bay or Aotea Harbour), spat can be captured and subsequently on-grown. In the early years of the mussel industry, spat was exclusively sourced through wild caught methods. • However, for reasons that remain unclear, natural mussel larval abundance has declined in many regions, with potential drivers thought to include climate change and anthropogenic contaminants. As a result, although spat catching once occurred in all of Aotearoa's mussel growing areas, it is now confined to a small number of regions and is estimated to supply only around 15% of industry demand.
Hatchery spat	• The term hatchery production refers to a captive breeding process where temperature is used to artificially trigger spawning behaviour among carefully selected broodstock. Once fertilised, the eggs are then reared through the larval phase in tanks and then settled onto coconut coir rope for deployment. Hatchery production offers year round spat availability and the ability to selectively breed for desirable traits such as rapid growth and increased thermotolerance. • Despite the numerous advantages offered by hatchery production, only one facility is currently operational in New Zealand, which provides approximately 15% of the industry spat requirement. A further two hatcheries are expected to be constructed by late 2027.

Table 13 Mussel spat constraints



Figure 5 Spat Collection on 90 Mile Beach. Left: 1mm mussel spat on red seaweed. Right: Red seaweed and spat being collected for the mussel industry.

4A.3.2 Seed Constraints

While both spat and seed are references to juvenile life stages of the Greenshell mussel, the drivers behind the shortages are markedly different. Where spat shortages relate to a lack of supply of mussel larvae, seed shortages relate to the inability to convert the millions of settled spat, once in the farming system, into intermediate and final seed.

For the industry's primary spat source, Te Hiku spat, typical on farm retention averages only 2–5%. In other words, approximately 95–98% of mussels initially seeded onto a line are lost before harvest. The reason retention is so low is largely attributable to the natural byssopelagic migration behaviour of Greenshell mussels. Studies have shown that more than 40% of the spat will vacate the growing line within minutes of being seeded²⁷. In conjunction with this migration behaviour, there is also high natural mortality, which is not uncommon among broadcast spawning species. Fish predation is also a considerable issue in some growing areas and can significantly affect overall retention.

The losses associated with off migration generally reduce as mussel size increases, and once the mussels reach more than 15mm in length, they become less adept at resuspension and must commit to a growing location. One final challenge for the seed sized mussels comes in the form of surviving their first summer, which generally comes only a few months after seeding when using Te Hiku spat. Summer brings warming waters, which are accompanied by higher virus loadings, reduced nutrient availability, reduced oxygen availability and increased competition with biofouling species. This combination of factors leads to increased stress and can result in a phenomenon known as 'summer mortality', which can cause seed losses of up to 80%. There is also evidence that elevated levels of toxins in the water column, including zinc, and herbicides impact spat survival²⁸.

While the factors influencing spat retention remain poorly understood, research suggests that good retention is a product of a combination of factors. These include the nutritional condition of spat at collection, pre deployment handling practices and environmental conditions at the receiving site.

4A.3.3 Climate Constraints

As with all forms of primary production, mussel farming is impacted by changes to both regional and global climate cycles. In New Zealand waters, fluctuations in the El Niño Southern Oscillation (ENSO) cycle have a profound impact. El Niño and La Niña are the opposite phases of the ENSO cycle, and from a mussel farming perspective, El Niño years are typically characterised by cooler water temperatures and higher primary productivity. For Pelorus Sound, for example, the westerly or north westerly winds associated with El Niño promote the upwelling of cool, deep and nutrient dense waters offshore which in turn deliver cooler temperatures and increased phytoplankton biomass, resulting in improved mussel performance. Conversely, La Niña years are typically dominated by warmer waters, reduced upwelling and increased storm frequency, all acting as stressors for mussels. The one benefit associated with La Niña, however, is the regular easterly winds which are a requirement of having spat strand at Te Hiku.

Figure 6 below illustrates how ENSO changes can affect Greenshell mussel production. The teal coloured bars represent El Niño conditions and the red bars represent La Niña, with the size reflecting the intensity. National

²⁷ South, P.M., O. Floerl., and A.G. Jeffs. (2020) *Magnitude and timing of seed losses in mussel (Perna canaliculus) aquaculture*. Aquaculture, 515. <https://doi.org/10.1016/j.aquaculture.2019.734528>

²⁸ Cawthron., *Could marine pollutants and climate change be driving the decline in mussel settlement in the Marlborough Sounds?* (16 September 2024).

mussel production is shown in orange.

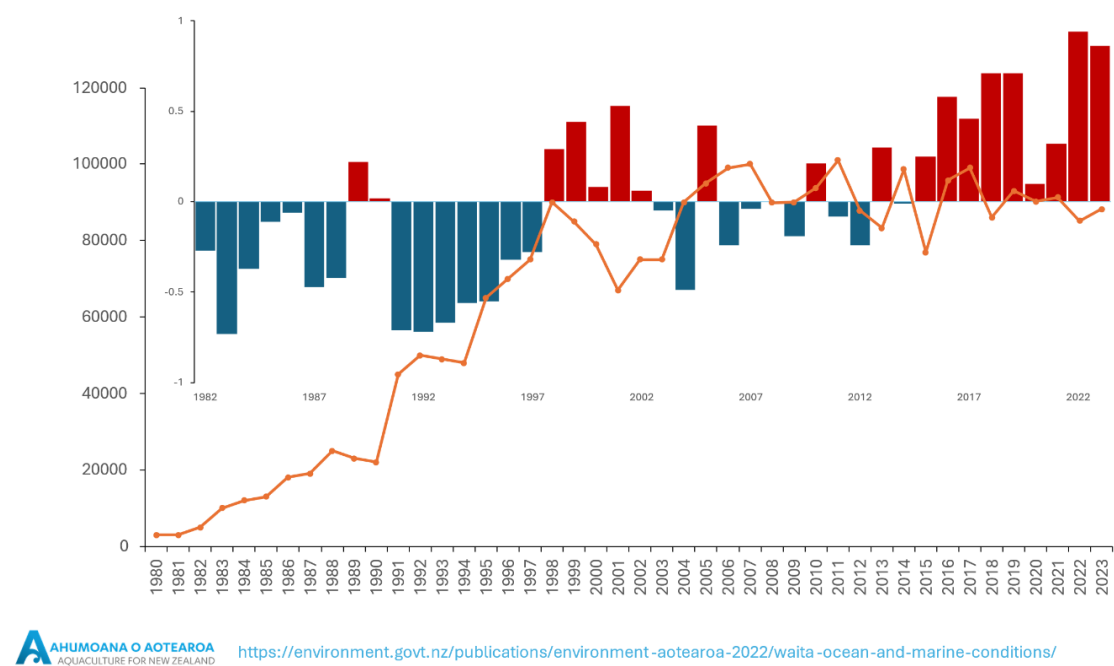


Figure 6 AQNZ comparison of ENSO conditions and mussel production in GWT for 1980 – 2023.

The rapid industry growth up until 1998 was supported by enduring El Niño conditions, while the post 2000 production plateau was highly variable, and the subsequent decline largely dominated by La Niña events, which also correlated with increased sea surface water temperatures²⁹.

The trend of increasing water temperatures is further reinforced by Figure 7, which shows the percentage of each year spent in marine heatwave conditions across New Zealand's oceanic regions from 1982 to 2022. While marine heatwave exposure was intermittent and generally low (typically under 10%) through the 1980s, 1990s and early 2000s, a clear upward shift began around 2017, with all four oceanic regions recording 25% or more of the year in heatwave conditions from 2018 onward. By 2022, the Tasman Sea spent 61.1% of the year in marine heatwave conditions, the highest of the four oceanic regions.

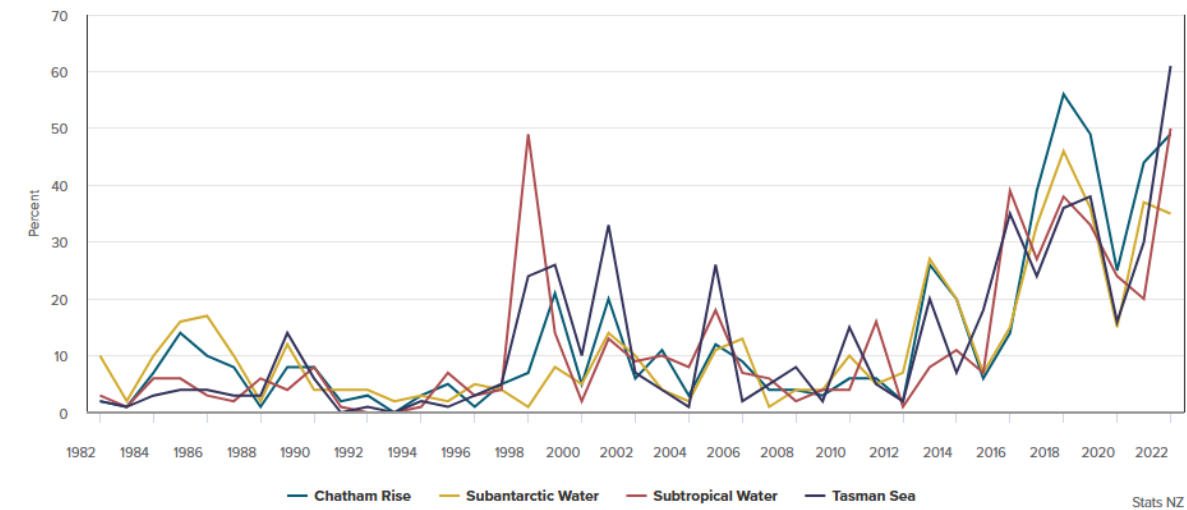


Figure 7 Percentage of year spent in marine heatwave by oceanic region, 1982–2022.

²⁹ Statistics New Zealand., [Sea-surface temperature: Data to 2023 | Stats NZ](#) (9 July 2024).

Increasing water temperatures represent a growing stressor for Greenshell mussels, particularly during the vulnerable juvenile spat and seed stages. Building climate resilience into the industry therefore means designing around the biological needs of the mussel itself, and access to cooler water for these fragile early life stages is an essential step toward climate adaptation. While the selected sites remain subject to marine heatwave conditions, they have been chosen specifically because they offer cooler water temperatures in relative terms. A one degree temperature anomaly, for instance, is less impactful at a site with an average water temperature of 15°C than the same anomaly at a site averaging 20°C, since the resulting peak temperature remains further from the mussel's physiological stress thresholds. The nursery sites have also been selected for their proximity to the Outer Sounds, where upwelling and strong currents help reduce stratification and moderate temperature peaks.

4A.3.4 Nursery Site Scarcity

Despite the clear need, access to dedicated cool water nursery space remains limited, and this is primarily a regulatory rather than a physical constraint. There is a strong correlation between the site attributes required for good nursery performance and the areas the NZCPS and wider RMA framework treat as unsuitable for aquaculture. Sites with cooler waters are often found at the entrance to sheltered embayments, while sites with high current velocities are often found near headlands, and both characteristics frequently correlate with areas mapped as having outstanding natural landscapes or character value. As a result, some of the most biologically suitable nursery sites fall within areas the current regulatory framework treats as inappropriate for aquaculture.

'Typically, well less than 10% of farm sites are suitable for nursery culture of spat, and well less than 5% provide a high degree of consistency in good spat performance'.

Professor Andrew Jeffs – University of Auckland

This mismatch is compounded by the well-recognised challenges of consenting new aquaculture even where a suitable site is identified. Taken together, a regulatory framework that inadvertently excludes many of the best performing sites, combined with a consenting pathway that is slow, expensive and exposed to speculative opposition, has made many operators understandably cautious about pursuing new nursery grade water space, even where the underlying biological and productivity case is strong.

4A.3.5 Relevance to the Application

The constraints identified in this section, spat supply variability, low and unpredictable seed retention, and worsening climate variability, are structural, industry wide limitations rather than issues specific to any single operator. This application directly addresses these constraints by seeking access to a specific, scarce category of nursery grade water space that the industry needs to overcome a well evidenced production bottleneck, and that the existing regulatory framework has made disproportionately difficult to access through standard consenting pathways.

4A.4 Importance of the Outer Sounds

4A.4.1 Introduction

The oceanographic and hydrodynamic properties of the Outer Sounds (Outer Sounds) are highly complex and variable, shaped by a combination of strong tidal currents, exposure to high winds and oceanic swells, and a range of interacting environmental gradients such as depth, turbidity, salinity, and nutrient availability, making them difficult to summarise succinctly. They are however vital to the mussel industry's future, and a high level summary is provided below.

4A.4.2 The Pelorus Sound Context

The Marlborough region accounts for 64% of New Zealand's Greenshell mussel production making it the country's most important growing area.

Pelorus Sound is characterised by stratified estuarine circulation, with the freshwater flows of the Pelorus and Kaituna rivers flowing over the top of the dense seawater being drawn in from the Cook Strait³⁰. These saltwater/freshwater exchange dynamics are of particular importance to the seasonal patterns of seston abundance in the Sound. During summer months under a negative Southern Oscillation Index (SOI), that is El Niño conditions, the prevailing north northwest winds result in the upwelling of nitrogen rich waters offshore which are then pushed into Pelorus Sound³¹.

In the winter months, these nitrogen rich waters are then drawn into the Sound via the estuarine circulation mechanisms described above. This year round supply of nitrogen can make Pelorus Sound highly productive for mussel cultivation. However, under positive SOI conditions (La Niña), the prevailing southeasterly winds can limit upwelling and are also generally accompanied by drought conditions, suppressing the estuarine circulation mechanism³².

4A.4.3 Outer Sounds Productivity

In stark contrast to the estuarine river driven Pelorus system, the Cook Strait and Outer Sounds represent a confluence for several significant oceanic currents. A detailed hydrodynamic analysis of the region³³ concluded that a northward coastal flow along the west coast of the northern South Island provides the upstream supply for Cook Strait. Cooler nutrient dense waters move into the Outer Sounds during southerly weather patterns while warmer waters flow southward during northerly conditions.

A study of wind driven upwelling in Cook Strait³⁴ found that cool plumes of nutrient rich water carried into Cook deliver enhanced nitrate levels that support substantial primary production. This upwelling occurs year round and concentrations of sea surface chlorophyll a within the plumes of upwelled waters can be four to six times greater than the background levels. Notably, this boost to primary productivity is most pronounced in the summer months when the surrounding surface waters are nutrient depleted and existing nursery space is fully occupied.

4A.4.4 Temperature Gradients

An analysis of water temperature data from 2015 to 2023³⁵, found that maximum temperatures in Queen

³⁰ NIWA. (2015). *The history of benthic change in Pelorus Sound (Te Hoiere), Marlborough*. Marlborough District Council. Client Report No. NEL2015-001.

³¹ Chiswell, S., Zeldis, J., Hadfield, M., & Pinkerton, M. (2017). Wind-driven upwelling and surface chlorophyll blooms in Greater Cook Strait. *New Zealand Journal of Marine and Freshwater Research*, 51(4), 465–489.
<https://doi.org/10.1080/00288330.2016.1260606>

³² Zeldis, J., Howard-Williams, C., Carter, C., & Schiel, D. (2008). ENSO and riverine control of nutrient loading, phytoplankton biomass and mussel aquaculture yield in Pelorus Sound, New Zealand. *Marine Ecology Progress Series*, 371, 131–142. [Doi: 10.3354/meps07668](https://doi.org/10.3354/meps07668)

³³ Stevens, C. L. (2014). Residual flows in Cook Strait, a large tidally dominated strait. *Journal of Physical Oceanography*, 44(6), 1654 - 1670. <https://doi.org/10.1175/JPO-D-13-041.1>

³⁴ Chiswell, S., Zeldis, J., Hadfield, M., & Pinkerton, M. (2017). Wind-driven upwelling and surface chlorophyll blooms in Greater Cook Strait. *New Zealand Journal of Marine and Freshwater Research*, 51(4), 465–489.
<https://doi.org/10.1080/00288330.2016.1260606>

³⁵ Marlborough District Council., [Coastal Water Quality – Monitoring 2015 – 2023 Temperature Trends](#).

Charlotte Sound are lower than in Pelorus Sound, and that the rate of warming has also been slower. These differences are attributed to the continual exchange of deeper, cooler oceanic waters from Cook Strait. Given the hydrodynamic similarities, these temperature trends are expected to also be representative of the broader Outer Sounds environment. Figure 8 further highlights a gradient from cooler to warmer waters with increasing distance from Cook Strait, and from the main channel within Pelorus Sound.

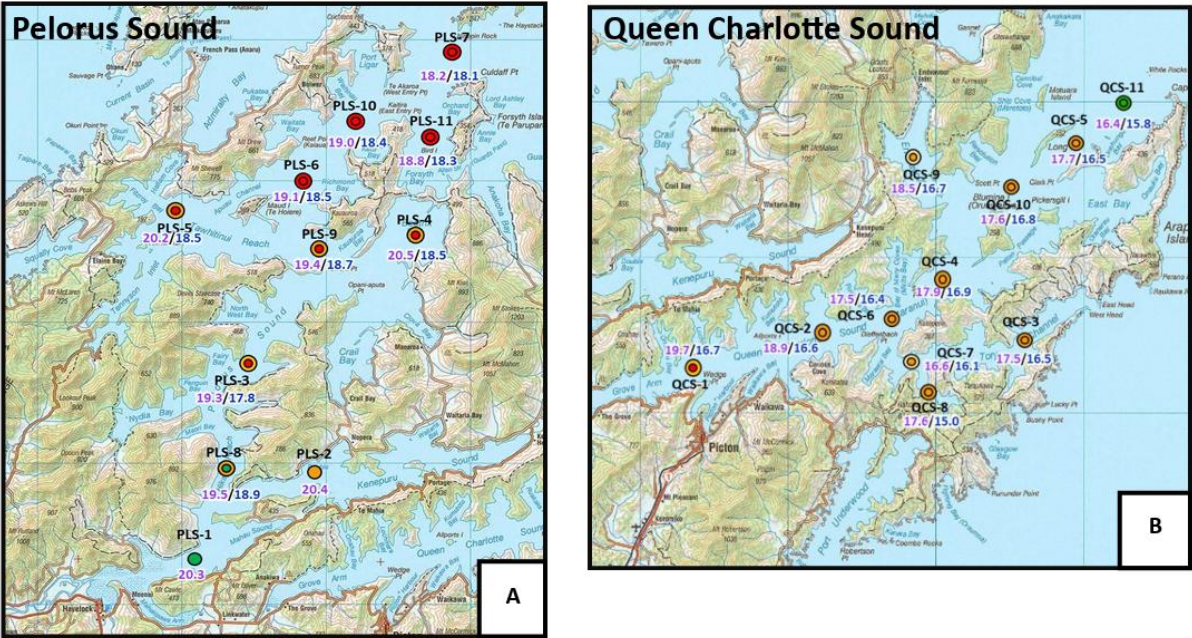


Fig 3: Sampling site locations in the Pelorus Sound (Map A) and Queen Charlotte Sound (Map B). **Red circles:** highly significant increase of temperatures from 2015 to 2023 (based on Sen-slope estimates of temperature anomalies). **Orange circles:** significant increase of temperatures from 2015 to 2023. **Green circles:** no significant change of temperatures within this time span. **Small circles:** temperature trend at 1m depth, **large circles:** temperature trend at 20m depth. Blue/purple numbers indicate maximum temperatures measured at each site for the year 2023 at 1m and 20m depth (**purple:** 1m, **blue:** 20m)

Figure 8 Water temperatures in Pelorus Sound and Queen Charlotte Sound, 2015 – 2023.

4A.4.5 Current Velocities

The Outer Sounds are renowned for strong tidal flows, with velocities of greater than 1 metre per second common. Figure 9 below provides modelled current speeds for Pelorus Sound and much of the Outer Sounds area. A clear spatial pattern in current velocity is evident across the modelled area, with the highest current velocities found in the Outer Sounds, where exposure to tidal flow and larger scale coastal currents sustains consistently strong flow. From this open water, a distinct band of elevated current speed extends inland along the main channel within Pelorus Sound, with localised peaks in speed occurring at narrower constrictions and channel junctions where tidal flow accelerates. Current velocity decreases progressively with distance from this main channel into the branching side arms and embayments, and the innermost bays consistently record the lowest current speeds.

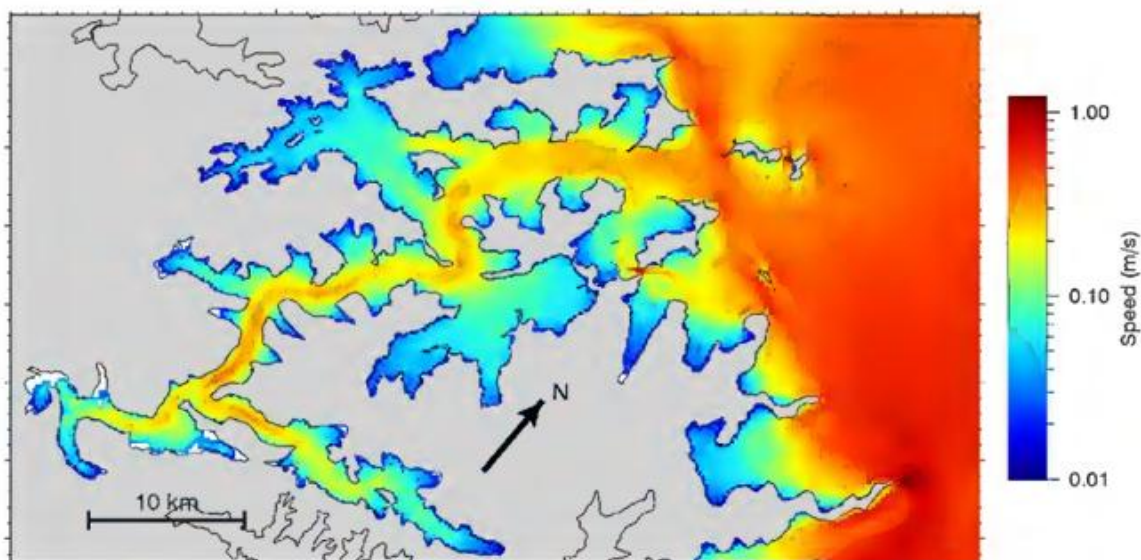


Figure 3-8: Model mean current speed. Mean current speed at 5 m depth, based on one year’s hourly data from the 200 m model.

Figure 9 NIWA biophysical model for Pelorus Sound current speeds.

4A.4.6 Relevance to the application

The oceanographic evidence demonstrates that the Outer Sounds consistently exhibit the combination of cooler water temperatures, elevated nutrient availability and strong current velocities required as key drivers of mussel performance. This is supported by decades of applicant observed spat performance at these specific sites. Taken together there is strong evidence that underpins the strategic importance of the application sites.

4A.5 Regional Case for Marlborough

The Greenshell mussel industry in Marlborough began at a cottage scale in the late 1960s, emerging in response to the collapse of the wild mussel fishery. Many locals who had previously relied on dredging or hand gathering wild mussels shifted their focus to cultivation. At the time, strong domestic demand, coupled with an abundance of easily collected local spat, provided a solid foundation for the fledgling industry.

Today, Marlborough is the epicentre of New Zealand's aquaculture industry, producing around 60% of the country's mussel exports, with a total value of approximately \$235 million. The industry comprises 579 farms, with a total farmed area within the Marlborough Sounds of approximately 3,700 hectares, approximately 2% of Marlborough's coastal waters.

Marlborough's mussel industry is not an emerging opportunity requiring greenfield development, instead it is a mature, established production base with decades of proven performance and accumulated operational capability. This existing capability is a key reason why the growth proposed by the application package represents a comparatively low risk, low expenditure pathway relative to establishing production capacity in a greenfield region. Key aspects are set out in Table 14 below.

Workforce	The region's mussel industry directly supports approximately 775 jobs, comprising around 170 on water farm operation roles and 605 processing roles. This workforce represents an experienced, embedded labour pool with the specific skills required for farming operations, vessel handling, and
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	shellfish processing. Wages associated with on water roles are notably higher than the regional average ³⁶ , supporting workforce retention and reducing the recruitment risk associated with scaling production.
Vessels	The Marlborough region is home to approximately 30 dedicated bivalve farming vessels, with additional vessel resources based elsewhere in Te Taihu also intermittently servicing the local industry. The applicants consider there is capacity within the existing fleet to support the initial development of the application sites, while additional vessel resources are built or purchased to meet longer term requirements.
Processing	Marlborough is home to three large mussel processing facilities, two of which are owned by the applicants. As with the vessel fleet, the applicants advise that there is capacity within existing processing infrastructure to support the initial development of the application sites, while additional capacity is developed over time.
Landside Infrastructure	Marlborough boasts an extensive network of port facilities, with large commercial marinas and wharves located in Havelock and Picton, supplemented by smaller satellite facilities at Port Underwood and Elaine Bay. Based on discussions with Port Marlborough New Zealand Limited which owns and operates these facilities, additional capacity is either already available or can be created to accommodate the proposed growth. Government is also currently investing heavily in port infrastructure at Picton (ferry terminal upgrades) and Havelock (channel dredging and marina development), and this application package will help ensure a return on that investment for both central and local government.

Table 14 Mussel applications regional case for Marlborough

Marlborough's existing industry scale, workforce, vessels, processing capacity and port infrastructure mean that the growth sought through these applications can be absorbed by an established production base rather than requiring the creation of new regional capability from scratch. This is directly relevant to the panel's assessment of deliverability and risk, as the region already has the operational capacity, expertise, infrastructure and investment readiness to support expanded production.

4A.6 Summary

Marlborough is New Zealand's most important mussel farming region, supported by decades of expertise, innovation and existing infrastructure. There is considerable potential to optimise the region's productivity by enabling mussel nursery and mussel production activities in strategic locations. The drivers of productivity are sufficiently well known and require sites in the Outer Marlborough Sounds, subject to cooler waters, higher currents and higher nutrient levels, particularly to ensure resilience for the more vulnerable spat and seed stages. The application sites have been carefully selected with these important productivity drivers in mind.

³⁶ NZIER. 2026. Economic assessment of the Marlborough Sounds Aquaculture Fast-track proposal. A report for Aquaculture Direct Limited. (**Schedule D22**).

Part 4B Oyster Context

4B.1 Production and Market Fundamentals

4B.1.1 Species and Biology Basics

The flat oyster *Ostrea chilensis*, is endemic to both New Zealand and Chile. In both countries, flat oysters are highly valued as a commercial and recreational fishing resource. For Māori, flat oysters, or (tio), are considered a taonga or ‘treasured species’, reflecting their long standing importance as a food source and as an integral part of indigenous cultural identity³⁷.

In New Zealand, the species is also commonly referred to as a ‘dredge oyster’ or ‘Bluff oyster’ and can be found at depths of 0 – 200m around the North Island, South Island, Stewart Island and Chatham Islands. The greatest abundance is observed around Te Taihu and Foveaux Strait³⁸. While the species prefers mud, sand, gravel or broken shell substrates, individuals will also attach to man made structures such as moorings and wharf piles.

Wild flat oysters are typically slow growing, taking 3 – 4 years to reach sexual maturity at sizes approaching 50mm³⁹. The flat oyster exhibits a peculiar reproductive strategy, including protandrous hermaphroditism, where individuals may alternate sexes repeatedly during the reproductive cycle. Unlike most oyster species, flat oysters also incubate their embryos⁴⁰ for a period of 2 – 9 weeks⁴¹. Once released, the planktonic larval phase is extremely short which limits dispersal and results in distinct, localised populations.

4B.1.2 Industry History

The wild flat oyster fishery is one of New Zealand’s oldest shellfish industries, with records of oyster dredging in Te Taihu extending back to 1845⁴². Dredging in Foveaux Strait commenced in 1863 and continues to this day as the iconic Bluff oyster fishery worth approximately \$15m per annum⁴³.

The first attempts at flat oyster farming date back to the late 1800s, where attempts were made to create artificial beds in Te Taihu. Between 1985 and 2015, a line based farming industry was established in Marlborough and Southland, with a small supply of farmed oysters being sold at comparatively high values both domestically and internationally. During this time significant effort was devoted to developing a unique method of cultivation specifically suited to the *Ostrea chilensis* species.

The flat oyster industry has been plagued by recurrent infections from microscopic protozoan parasites. *Bonamia exitiosa* was first described in New Zealand (making it an endemic species) in the 1980s and is

³⁷ Hilton, Z., Vignier, A., Muznebin, F., & Webb, S. (2025). Reduced farming density of New Zealand flat oyster *Ostrea chilensis* is associated with decreased infection by *Bonamia ostreae* and other parasites. *Aquaculture*, 607, 2-4. <https://doi.org/10.1016/j.aquaculture.2025.742683>

³⁸ Ministry for Primary Industries. (n.d.). Annual distribution of dredge oyster lineage [PDF]. NABIS Lineage Documents.

³⁹ Winter, J. E., & Langton, R. W. (1986). Environmental effects on the growth of the Chilean oyster *Ostrea chilensis*. *Aquaculture*, 57(1).

⁴⁰ Toro, J., Oyarzuin, P., Toledo, F., Navarro, J., Illesca, A., & Gardner, J. (2022). Genetic structure and diversity of the Chilean flat oyster *Ostrea chilensis* (Bivalvia: Ostreidae) along its natural distribution from natural beds subject to different fishing histories. *Genetics and Molecular Biology*, 45(1).

⁴¹ Brown, S., Handley, S., Michael, K., & Schiel, D. (2010). Annual pattern of brooding and settlement in a population of the flat oyster *Ostrea chilensis* from central New Zealand. *New Zealand Journal of Marine and Freshwater Research*, 44(4).

⁴² Fisheries New Zealand. (2014). Dredge Oysters Nelson/Marlborough (OY57).

⁴³ Ministry of Fisheries. (2009). Foveaux Strait Dredge Oyster Information Brief: Appendix 2.

recognised as the cause of ongoing mass mortality events in the Foveaux Strait wild oyster beds⁴⁴. These events, known as epizootics (the animal equivalent of an epidemic), have been recorded as causing up to 80% mortality. In response to population decline, the Bluff oyster fishers have halved the Total Allowable Catch to 7.5 million oysters per season for 10 of the last 22 seasons, including the last four years⁴⁵.

In 2015, *Bonamia ostreae* (Bonamia) was detected in farmed flat oysters in the Marlborough region. Prior to this detection, Bonamia was thought to only affect European flat oysters (*Ostrea edulis*) and to be confined to the Northern Hemisphere. In response, BNZ issued a Controlled Area Notices (CAN) covering Te Taihū and Foveaux Strait to restrict stock and equipment movements and mitigate the potential spread. In 2017, Bonamia was detected in farmed oysters in Big Glory Bay, Stewart Island. This detection triggered the closure of the fledgling farming industry nationally, primarily to protect the Foveaux Strait fishery.

Bonamia epizootics have decimated New Zealand's wild flat oyster populations and inflicted severe economic and emotional strain on both commercial fishers and oyster farmers.

The 2019 Bonamia TAG (**Schedule D15**) determined that small scale flat oyster farming could be recommenced in the Marlborough region with appropriate biosecurity controls and risk management strategies in place⁴⁶.

In December of 2024, BNZ released technical advice stating that Bonamia is expected to spread beyond the CAN Contained Zone in Big Glory Bay, due to an increased prevalence of the infection in wild oysters. Projections suggest that the infection will reach Foveaux Strait by 2026 – 2030, and for it to be established throughout Foveaux Strait within 7 – 14 years, potentially reducing flat oyster populations by 80 – 90%⁴⁷.

With the current restrictions on flat oyster farming targeted at protecting the Foveaux Strait/Bluff fishery, the restrictions may be lifted if Bonamia becomes widespread in Southland. Furthermore, the restocking of wild populations with disease resistant hatchery reared oysters may be required, as successfully executed in Ireland⁴⁸.

Further detail regarding the biosecurity context for flat oyster farming at Onapua Bay is set out in **Section 12.6**

4B.1.3 Market Potential

In leading global markets, the flat oyster trade more closely mirrors the world of fine wine or cigars than that of commodity seafood trading. Discerning consumers, or connoisseurs, are known to travel vast distances and pay premium prices for access to rare and distinctive offerings. With flat oysters accounting for only 0.2% of global

⁴⁴ Cranfield, H., Dunn, A., Doonan, I., & Michael, K. (2005). *Bonamia exitiosa* epizootic in *Ostrea chilensis* from Foveaux Strait, southern New Zealand between 1986 and 1992. *ICES Journal of Marine Science*, 62(1): 3 - 13. <https://doi.org/10.1016/j.icesjms.2004.06.021>

⁴⁵ Ministry for Primary Industries. (2024). Fisheries Assessment Plenary November 2024 Volume 1: Introductory sections and Albacore to Yellowfin Tuna. Chapter 5: Dredge Oyster (OYU 5) – Foveaux Strait (*Ostrea chilensis*). 129- 161. [Fisheries Assessment Plenary November 2024 Volume 1: Introductory sections and Albacore to Yellowfin Tuna](#)

⁴⁶ Diggles, B. K., Deveney, M., Michael, K. P., & Farnsworth, M. C. (2020). [Report of the Technical Advisory Group 2019 on a Return to Flat Oyster Farming 23–27 September 2019](#). Produced for Biosecurity New Zealand to inform advice to the Bonamia Programme Governance Group, Ministry for Primary Industries.

⁴⁷ Ministry for Primary Industries. (2024). Technical advice on: The likelihood, speed, and impact of *Bonamia ostreae* spread from Big Glory Bay to Foveaux Strait. Biosecurity New Zealand. Biosecurity New Zealand Technical Paper No: 2024/05. ISSN No: [2624-0203](#).

⁴⁸ Lynch, S. A., Flannery, G., Hugh-Jones, T., Hugh-Jones, D., & Culloty, S. (2014). *Thirty-year history of Irish (Rossmore) Ostrea edulis selectively bred for disease resistance to Bonamia ostreae*. *Diseases of Aquatic Organisms*, 110, 113–121. <https://doi.org/10.3354/dao02734>

oyster sales, their scarcity and exceptional eating qualities make them highly sought after.

Historically, France was the epicentre for European flat oyster production. However, production peaked in the 1960s and continues to decline. Other nations including Spain, Ireland and Italy subsequently increased production, but the overall trend of a sustained decline remains (see Figure 10 below).

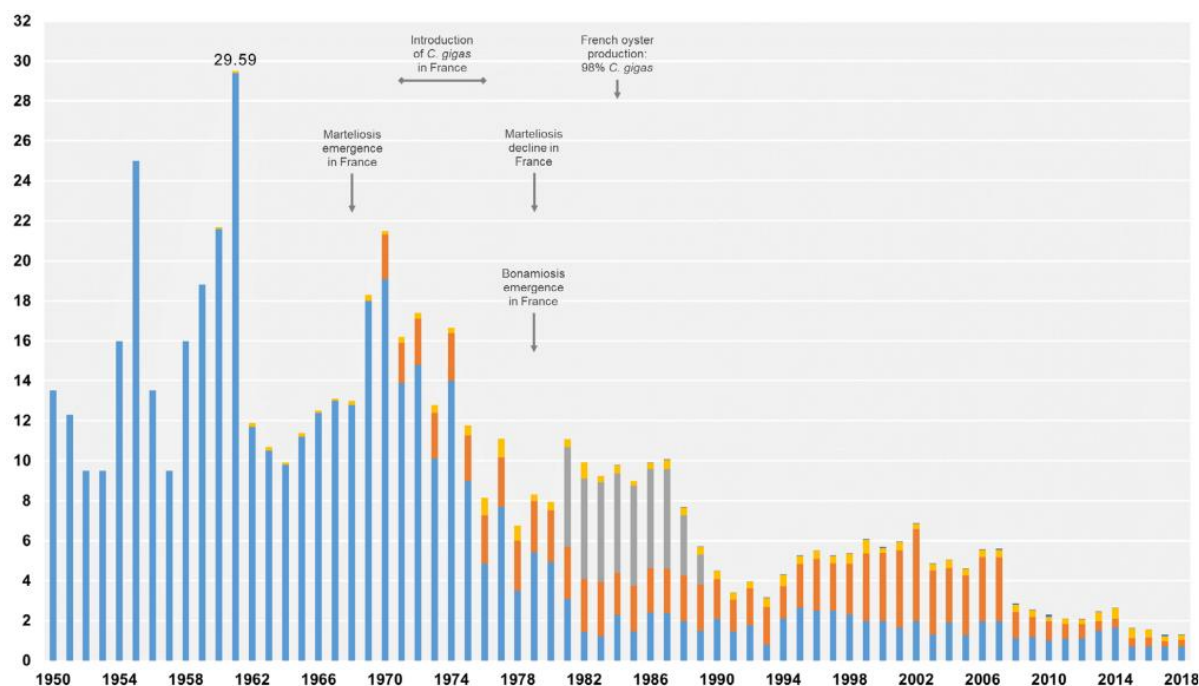


Figure 1 Histogram of *Ostrea edulis* aquaculture production in Europe from 1950 to 2018 (FAO 2020) with some key French events (Héral 1990; Grizel & Héral 1991). The data include only the values corresponding to the European flat oysters; the volumes are in live weight and cumulated by country, independently of the main FAO production areas. (■) Other European countries: Bosnia-Herzegovina, Channel Islands, Croatia, Greece, Montenegro, Morocco, Norway, Portugal, SFR of Yugoslavia, Sweden, The Netherlands, Tunisia, UK; (■) Ireland; (■) Italy (1981–1989; 2010–2011); (■) Spain and (■) France.

Figure 10 Decline of European flat oyster cultivation⁴⁹.

The steep decline in European flat oyster production was principally driven by the emergence of protozoan parasites including *Bonamia* during the 1970s. These diseases caused catastrophic mortalities of up to 90% in critical regions such as France and Spain⁵⁰, mirroring the impacts observed in New Zealand flat oyster populations affected by *B. exitiosa*. French oyster farmers responded to this crisis by rapidly transitioning to cultivation of the more resilient, but predominately lower priced, Pacific oyster. Today, 98% of France's production comprises Pacific oysters.

When rarity and provenance combine, flat oysters can command a significant price premium over Pacific oysters. The most well-known example is the 'Belon' oyster grown in Brittany, France. Belon are European flat oysters grown in the Belon River estuary, which is believed to impart a signature taste. The Belon designation is legally protected in France, guaranteeing both the precise geographic provenance and the oyster quality, much like the appellation system for Champagne. The applicant has eaten Belon oysters at top oyster bars in Hong Kong, where

⁴⁹ Colsohl, B., Boudry, P., Perez-Parelle, M., Cetinic, A., Hugh-Jones, T., Arzul, I., Merou, N., Wegner, M., Peter, C., Verena, M., & Pogoda, B. (2021). Sustainable large-scale production of European flat oyster (*Ostrea edulis*) seed for ecological restoration and aquaculture: A review. *Reviews in Aquaculture*, 13(2), 1423 - 1468. <https://doi.org/10.1111/raq.12529>

⁵⁰ Pouvreau, S., Lapegue, S., Arzul, I., & Boudry, P. (2023). Fifty years of research to counter the decline of the European flat oyster (*Ostrea edulis*): A review of French achievements and prospects for the restoration of remaining beds and revival of aquaculture production. *Aquatic Living Resources*, 36, 1 -18. <https://doi.org/10.1051/alr/2023006>

the price was upward of \$19 NZD per oyster⁵¹.

While New Zealand oysters may not currently have the same provenance story, local producers could develop this based on several compelling competitive advantages in international markets, including:

- A counter season opportunity with Northern Hemisphere producers
- Leveraging New Zealand's strong global reputation for quality seafood production
- A unique/rare species offering

In 2014, limited quantities of Marlborough grown 'Tio Point' flat oysters were sold in the US market. The return to growers was \$24 NZD per dozen, while the oysters were being sold in restaurants for up to \$7 USD each, or \$84 USD per dozen (\$11.76 and \$141.12 NZD, respectively). Today, the limited quantities of American grown European flat oysters fetch pricing of \$119 USD/\$199 NZD per dozen in retail sales channels⁵².

In 2021, a Chinese importer confirmed market demand for 70,000 to 80,000 dozen New Zealand flat oysters annually, with anticipated grower returns ranging from \$14 to \$15.50 USD per dozen (\$18.20–\$20.15 NZD at that time). This combination of scale and pricing highlights both the strong appetite and potential value of New Zealand flat oysters in the Chinese market⁵³.

Between 2006 and 2013, Tio Point oysters were also available on the domestic market, with the brand achieving a grower price of \$17.60 NZD per dozen and a retail price of \$6 - \$6.50 NZD per oyster. Once again, volumes were small, but demand was strong, and the brand achieved almost immediate market acceptance.

Today, domestic demand for wild flat oysters remains strong, with New Zealand's largest Bluff oyster processor noting that for the 2025 season pricing was up to \$40 per dozen and that⁵⁴:

- *'The demand for the delicacy comes despite extraordinary price increases. Over 35 years, the price of a dozen raw oysters has risen by 780%, putting it well ahead of the average 144% inflation affecting food costs over the same period'.*

Demand for flat oysters considerably outstrips supply and with the supply of both wild and farmed flat oysters trending downward, it is reasonable to conclude that this demand remains, especially for unique, high quality offerings.

4B.2 Regional Case for Marlborough

The Onapua Bay application is described in detail in **Part 12**. Importantly, Apex has researched and developed farming methods over many years which enable flat oyster farming to be undertaken with minimal risk of Bonamia spread. Furthermore, the characteristics of the Onapua Bay sites offer favourable, climate resilient growing conditions, and the applicant's track record producing Tio Point oysters in nearby Oyster Bay demonstrates practical viability in this locality. As flat oysters are already consented across more than 200 sites in the Sounds, there may be future potential for further farms to diversify into flat oyster farming which will strengthen the sector's resilience against species specific climate and disease threats.

⁵¹ Personal communication, Bruce Hearn, 22 September 2025.

⁵² <https://shop.islandcreekoysters.com/products/belon-oysters-from-harpswell-maine?srltid=AfmBOorIV47OKK5iYA0SuVrNTOLecKuzAN7all0di8ZVqy9e3zbqMfH-&variant=42541749174422>

⁵³ Personal communication, Bruce Hearn, 22 September 2025.

⁵⁴ <https://barnesoysters.co.nz/news/its-no-bluff-pricey-oysters-still-in-demand>

As described in **Section 4A**, Marlborough is the epicentre of New Zealand’s aquaculture industry, accounting for approximately 65% of national aquaculture production. This established industry provides the infrastructure, expertise, workforce and supply chain capacity needed to support diversification into flat oyster farming. Table 17 below highlights how existing capacity will support flat oyster production.

Workforce	The region's mussel industry directly supports approximately 775 jobs, comprising around 170 on water farm operation roles and 605 processing roles. This workforce represents an experienced, embedded labour pool with transferable skills to support flat oyster operations and processing.
Vessels	The Marlborough region is home to approximately 30 dedicated bivalve farming vessels, with additional vessel resources based elsewhere in Te Taihupo also intermittently servicing the local industry. The applicants consider there is capacity within their own existing fleet to support the initial development of the application sites, while additional vessel resources can be contracted as required.
Processing	Marlborough is home to three large mussel processing facilities, two of which are owned by the applicants, and one Pacific oyster processing facility. The applicants advise that there is capacity available to process the flat oysters produced.
Landside Infrastructure	Onapua Bay is less than 18km from the extensive wharf infrastructure at Picton and Waikawa and is accessible for farming vessels in almost all weather conditions.

Table 15 Oyster application regional case for Marlborough

Marlborough’s established aquaculture workforce, vessel fleet, marine servicing capability, processing facilities and port infrastructure provide a strong platform for the development of a flat oyster industry. While flat oyster farming will require species specific husbandry methods and market development, much of the underlying operational capability can be adapted from the existing marine farming sector rather than created from scratch. This is directly relevant to the Panel’s assessment of deliverability and risk, as the region has the expertise, infrastructure and investment readiness to support the establishment and subsequent scaling of flat oyster production.

4B.3 Flat Oyster Summary

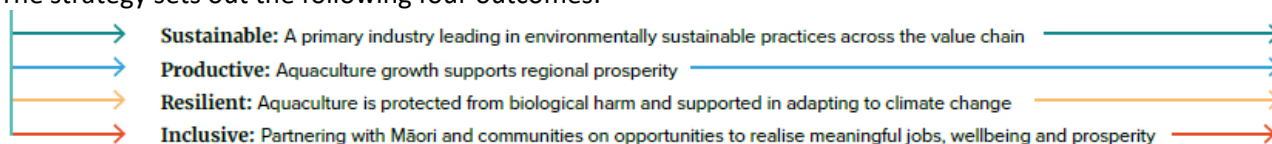
Flat oysters represent a rare and high value opportunity for New Zealand aquaculture, with strong domestic and international demand consistently outstripping supply. While *Bonamia* remains the principal constraint to re-establishing the industry, Apex has proposed a farming methodology that directly addresses this risk, and the sites offer favourable growing characteristics. Marlborough's established aquaculture workforce, vessels, processing capacity and infrastructure mean the anticipated growth can be absorbed by an existing production base. Collectively, the applicant considers the market opportunity, biosecurity approach and regional capacity will support a viable return to commercial flat oyster farming.

Part 5 Project Benefits

5.1 Overview

The Government has identified aquaculture as a transformative industry, with the potential to contribute positively to the wellbeing of the people of Aotearoa. The Government's Aquaculture Strategy, which was developed in response to the New Zealand Aquaculture Industry Strategy⁵⁵ sets out a vision that '*New Zealand is globally recognised as a world leader in sustainable and innovative aquaculture management across the value chain*'.

The strategy sets out the following four outcomes:



This package of projects aligns directly with those outcomes, seeking to add productivity and resilience for the Marlborough industry and providing for Iwi aspirations in appropriate and sustainable locations. The projects provide economic, social, ecosystem and cultural benefits and will be undertaken in accordance with world leading best management practices as set out in the sections below.

5.2 Economic Benefits

NZIER have undertaken an economic assessment of the project, provided as **Schedule D22**. The assessment was undertaken using a regional computable general equilibrium (CGE) model, TERM-NZ, to estimate the economic impacts of both the construction and long term operation of the proposed developments.

NZIER describe aquaculture as one of Marlborough's defining industries noting that the industry's economic contribution extends well beyond marine farming itself. Production is supported by an established regional cluster comprising nurseries, marine farms, harvesting, seafood processing, engineering, vessel operations, transport, cold storage, environmental management and export services. The concentration of producers, processors and specialist suppliers has also encouraged investment in marine infrastructure, technical capability and processing capacity, which '*would be difficult to replicate elsewhere*'.

NZIER note the importance of this concentration in the context of the project. Additional production can utilise existing infrastructure, specialised skills and processing capacity, while strengthening the commercial base that supports these industries. As a result, changes in aquaculture production generate economic activity well beyond the marine farms through supply chain linkages across the regional economy. NZIER explicitly capture these interactions in their CGE modelling.

NZIER's modelling indicates that the project will generate significant positive economic impacts for Marlborough with the largest and most enduring benefits arising during the operational phase through increased production, exports, employment and household income.

NZIER modelled economic impacts through the construction phase and operational phase. For the construction phase the total Marlborough GDP value is \$6.4 million and household spending is \$4.6 million.

⁵⁵ Aquaculture New Zealand, [Resources](#) (Aquaculture New Zealand, last accessed 16 July 2026).

Across 30 years of construction and operation NZIER estimates that the projects will:

- Increase annual Marlborough gross domestic product (GDP) by approximately **\$84.4 million**
- Increase annual Marlborough household spending by **\$39.8 million**
- Support approximately **222 employees** in Marlborough
- Contribute to a present value increase in Marlborough GDP of **\$865 million** and household spending of **\$409 million** over the 30 year assessment period.

NZIER find that these are economically significant in the context of Marlborough's estimated GDP of \$4.5 billion. They also estimate the project will:

- Increase national GDP by **\$1,283 million** over 30 years
- Increase national government revenue by **\$743 million** over 30 years.

NZIER find that the impacts are wider than increased GDP. They recognise the benefits improving the resilience and reliability of the mussel seed supply, increasing the productivity hatchery produced spat, increasing mussel production, adding diversity through commercial flat oyster farming and increasing the utilisation of Marlborough's existing processing, transport and marine infrastructure. They note that increase in household spending reflects higher employment, real wages and labour income across the region. There will also be spillover benefits for Nelson and Tasman.

NZIER do not monetise the broader economic, social and environmental benefits and therefore consider the figures in their report to represent conservative estimates of the project's overall contribution.

NZIER considered the findings of the ecological and landscape and natural character assessments. They note the findings of Robertson that with all proposed mitigations in place the residual effects on all ecological domains are anticipated to be no more than minor. NZIER also note that the peer review findings of the landscape and natural character assessments *'would not materially compromise the landscape and natural character values of the wider receiving environment'*. NZIER note that several broader environmental and community benefits have been identified but as they cannot yet be robustly quantified the economic assessment does not include an economic evaluation of environmental impacts in the modelling results.

NZIER conclude that the proposal will generate a material and sustained increase in Marlborough's economic activity. The results provide *'strong evidence that the projects would deliver significant regional economic benefits'*.

While the NZIER report modelled current product formats there is significant potential for additional value growth for mussels being processed into high value nutraceutical products. In recent years demand for these has increased, with oil and powder formats now making up 16% of exports by value.

With the global population projected to reach 9 billion by 2037 and increasing pressure on wild caught seafood, the demand for sustainable, high quality protein sources is only set to grow, strengthening further the value proposition of New Zealand farmed shellfish.

MDC has recently introduced coastal occupation charges (COCs) under the MEP. The purpose of COCs is promote the sustainable management of the coastal marine area. This can include State of the Environment monitoring, research, education, restoration and enhancement activities all of which will directly benefit Marlborough's

communities. Based on the charges set in July 2026 the application sites will contribute the following per year:

Application site	Hectares	Annual COC
Papatua	90	\$3,335
Guards Bay	78.47	\$3,335
Hāpuku Rock	28.03	\$3,182
Okuri Bay	27.89	\$3,335
Richmond Bay	42.17	\$3,335
Onapua Bay	15.73	\$1,601
Total		\$18,123

Table 16 Annual coastal occupation charges contribution

5.3 Social Benefits

Aquaculture is widely recognised for providing a range of social benefits to the regional communities it operates in including supporting a range of roles and career development opportunities both at sea and on land⁵⁶ from farm workers to skippers, from hatchery technicians to operations managers and including those shown in Figure 11 below.



Figure 11 Career opportunities in aquaculture

A 2014 MPI study on the 'social value of a job'⁵⁷ demonstrated the diverse range of positive social impacts that paid employment can have, not only for individuals but also for their wider communities. The report highlights

⁵⁶ Aquaculture New Zealand. (2025). aquaculture.org.nz/careers

⁵⁷ Ministry for Primary Industries. (2014). *The Social Value of a job*. MPI Information Paper No: 2014/24. ISBN No: [978-0-477-10509-5](https://www.mpi.govt.nz/publications-and-resources/publications/978-0-477-10509-5).

that employment supports financial stability, enhances living standards, and provides a pathway out of poverty. It also contributes to improved health, wellbeing, and self-perception, and is vital for sustaining vibrant communities. Supplementary research conducted in Southland in 2015⁵⁸ found similar broad reaching benefits for aquaculture roles, concluding:

- *'The social effects in Stewart Island and Bluff are remarkable for their positive nature. Despite participants being asked about negative effects experienced, nothing remotely significant was described. Instead, a highly positive and significant social picture has emerged, where the companies and employees have jointly contributed. There is no doubt that the communities of Stewart Island and Bluff are significantly socially richer due to the presence of aquaculture.'*

NZIER quantified the number of jobs that the project would support in their economic assessment in Schedule D22. They estimate the industry currently employs 346 people representing around 1.2% of Marlborough's workforce excluding employment in seafood processing and supporting industries.

The increase in jobs from this project would be 29 in the construction phase and 222 at full operation noting that average earnings in aquaculture farming are substantially higher than in seafood processing. NZIER find that the projects *'therefore have the potential to influence regional household incomes through both direct and indirect employment'*.

The Marlborough industry provides a range of benefits for social wellbeing including supporting the Havelock Mussel & Seafood Festival⁵⁹ with MFA a cornerstone sponsor for many years, and mussel companies including Talley's and Clearwater Mussels providing ongoing sponsorship. The festival is a major annual event celebrating Marlborough's aquaculture heritage, and particularly the township of Havelock's status as the 'Greenshell Mussel Capital of the World'.

A core objective of the festival is to give back to the local community. As a registered charity, the Havelock Mussel Festival has distributed over \$315,000 in grants since its inception, supporting a wide range of charitable projects and organisations. Grants have funded emergency services, public amenities, recreation facilities, environmental initiatives, education, and health services. Recent recipients include local schools, sports clubs, museums, environmental trusts, and community groups.

Each of the project's applicants are longstanding members of the Marlborough industry and have committed a range of resources over the years to give back to their communities including providing sponsorships, co-funding, and staff and vessel time. The Marlborough community is significantly more vibrant because of the aquaculture industry than without it.

5.4 Ecosystem Benefits

5.4.1 Ecosystem Services

A 2019 NIWA⁶⁰ study illustrates the ecological and ecosystem services provided by mussel farms in the Marlborough Sounds, (Figure 12) these will also be similar for longline oysters.

⁵⁸ Ministry for Primary Industries. (2015). *The Social and Community Effects of Aquaculture*. MPI Information Paper No: 2015/06. ISBN No: [978-0-908334-49-0](#).

⁵⁹ <https://www.havelockmusselfestival.co.nz/>

⁶⁰ Stenton-Dozey, J., Broekhuizen, N. (2019). [Provision of Ecological and Ecosystem Services by Mussel Farming in the Marlborough Sounds](#). Prepared for Marine Farming Association.

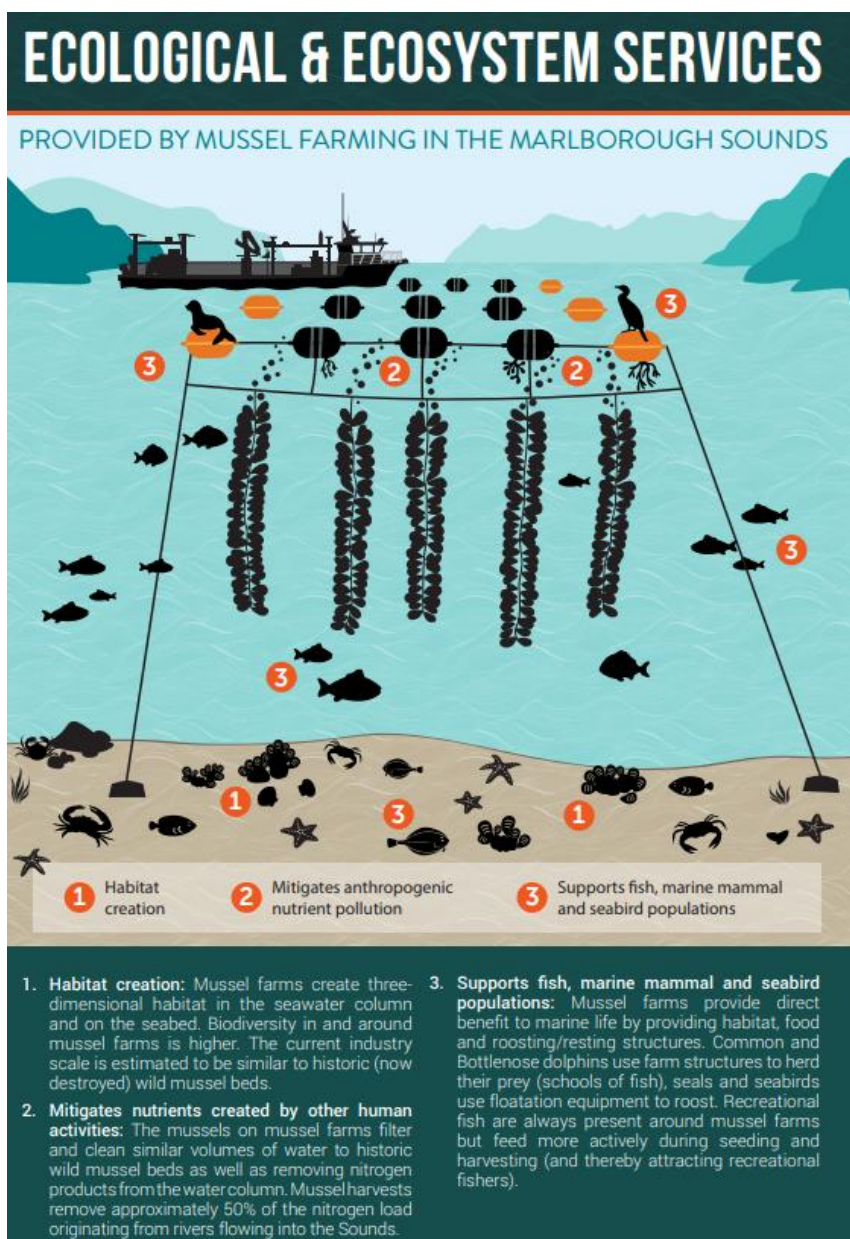


Figure 12 Ecological benefits of mussel farms in the Marlborough Sounds

Ben Roberston of Robertson Environmental Limited has provided a Coastal Ecological Impact Assessment (EcIA) for the project⁶¹. Robertson describes the positive ecological effects of this application in Section 5.1 of that report, weighing those, where appropriate against potential adverse effects.

Robertson reiterates the potential for mussel farms to provide extensive three dimensional habitat which supports enhanced local fish abundance and diversity relative to nearby soft sediment habitat. This functions as a *'surrogate reef-like habitat for reef-associated and pelagic species.'* Robertson finds this effect is likely across all the application sites.

Robertson notes that the anchor and mooring chain infrastructure can also introduce small areas of hard substrate on which international studies have found crabs, sea stars and lobsters. This may be reduced

⁶¹ Robertson, B. Marlborough Sounds Aquaculture Project. Coastal Ecological Impact Assessment (2026) (**Schedule D21**).

somewhat depending on the level of bio deposition at each site, noting that bio deposition will be less at the nursery sites.

Robertson reiterates the NIWA finding that shellfish farm structures develop diverse biofouling communities that contribute additional secondary production and habitat complexity to the water column, and shellfish filter feeding activity contributes to local nutrient cycling. The level of the positive effect may be reduced somewhat depending on the level of phytoplankton depletion, however for this application those effects are considered negligible to low as set out in **Section 6.6** below.

Robertson also notes that farm structures can provide roosting and foraging opportunities for seabirds and adjacent foraging opportunities for marine mammals.

Recent research by scientists from the University of Auckland has described positive effects of mussel aquaculture in the Hauraki Gulf. As the region faces ongoing environmental pressures and the decline of natural habitats, aquaculture has been identified as being critical to supporting fish populations. One study investigated the recruitment of fish larvae and juveniles into mussel farms compared to natural control sites⁶² finding that shellfish farms are not simply production sites for seafood but also serve as important artificial habitats. By mimicking some of the structural complexity of natural reefs, mussel farms offer shelter and resources for a variety of marine species, thereby supporting the resilience and productivity of local fish populations.

A second study focused on the nutritional status of Australasian snapper (*Chrysophrys auratus*)⁶³, a species of both ecological and commercial significance. This study found that mussel farms can enhance the nutritional status of wild fish, potentially supporting better growth and overall health. This in turn has positive implications not only for local fisheries but also for the broader ecosystem, as healthier fish populations contribute to ecological stability.

The Nature Conservancy (TNC) is a leading global conservation organisation focused on protecting lands and waters, advancing sustainable food systems, and restoring nature for people and wildlife. In recent years, TNC has become a key advocate for restorative aquaculture, particularly bivalve farming, emphasising its potential for delivering ecological as well as economic benefits. Recent peer reviewed research led by TNC concluded that:

- Mussel and oyster farms positively affect species abundance and richness, create habitat and help mitigate against pollutants⁶⁴.
- Farmed mussels can assist with the restoration of natural ecosystems⁶⁵.
- Restorative aquaculture may be one of the best opportunities to simultaneously improve the health of aquatic environments and provide food for a growing population⁶⁶.

⁶² Underwood, L., & Jeffs, A. (2023). Settlement and recruitment of fish in mussel farms. *Aquaculture Environment Interactions*, 15, 85–100. (**Schedule 14**)

⁶³ Underwood, L., van der Reis, A., & Jeffs, A. (2023). Diet of snapper (*Chrysophrys auratus*) in green-lipped mussel farms and adjacent soft-sediment habitats. *Aquaculture, Fish and Fisheries*, 3(4), 273–284. <https://doi.org/10.1002/aff2.113>

⁶⁴ Theuerkauf, S., Barrett, L., Alleway, H., Costa-Pierce, B., St Gelais, A., & Jones, R. (2022). Habitat value of bivalve shellfish and seaweed aquaculture for fish and invertebrates: Pathways, synthesis and next steps. *Reviews in Aquaculture* 14, 54–72. <https://doi.org/10.1111/raq.12584>

⁶⁵ Barrett, L., Theuerkauf, S., Rose, J., Alleway, H., Bricker, S., Parker, M., Petrolia, D., & Jones, R. (2022). Sustainable growth of non-fed aquaculture can generate valuable ecosystem benefits. *Ecosystem Services* 53, 101396. <https://doi.org/10.1016/j.ecoser.2021.101396>

⁶⁶ The Nature Conservancy. (2021). [Global Principles of Restorative Aquaculture](#).

TNC provided a visual representation of the positive effects on species abundance generated by bivalve and seaweed production systems. Mussel farming systems were observed to have the greatest increase over control sites, closely followed by oysters.

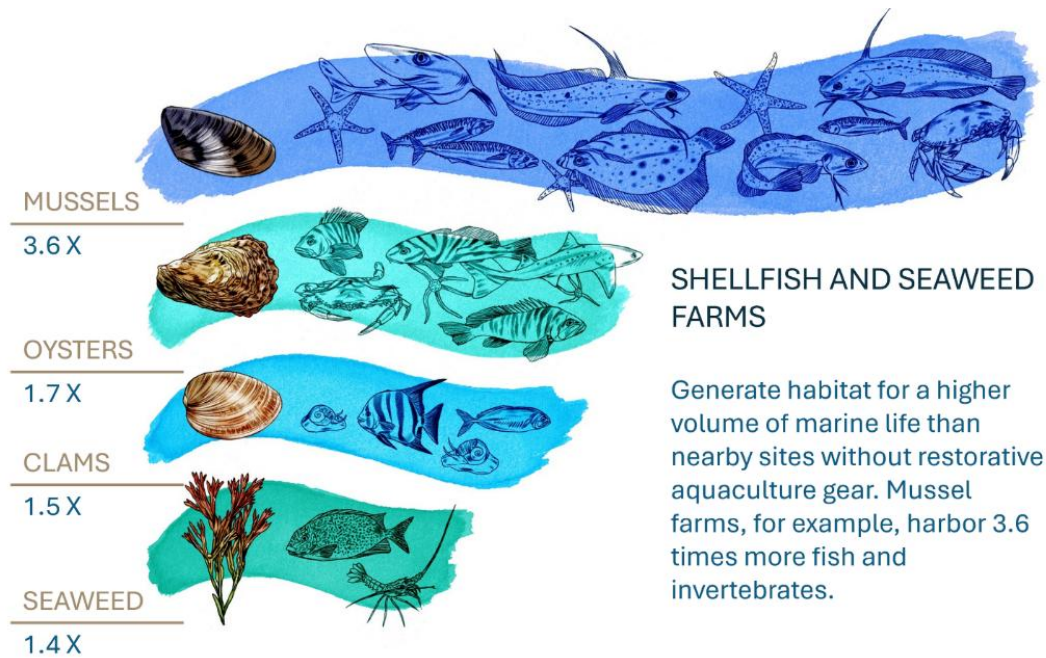


Figure 13 Habitat generation potential

5.4.2 Food Provisioning Services

Farmed shellfish are one of the most affordable, nutritious, and sustainable sources of protein available in Aotearoa. Globally, they’re recognised as one the world’s most sustainable seafoods including as a 'Super Green food' by the Monterey Bay Aquarium's Seafood Watch programme⁶⁷



Figure 14 New Zealand Greenshell mussels and the Apex 'Tio Point' oyster

⁶⁷ Monterey Bay Aquarium. [How to Choose Sustainable Seafood](#) (Monterey Bay Aquarium, last accessed 16 July 2026).

Farmed bivalves are broadly considered a sustainable and affordable source of high nutrient proteins⁶⁸.

- *‘With a higher protein content than many meats and plant crops, and high levels of essential omega-3 fatty acids and micronutrients, like iron, zinc and magnesium, this specific group of shellfish has the potential to ameliorate many global food issues. This is particularly relevant to child malnutrition, as many of these nutrients are especially crucial to growth, and the planet stands to gain from their increased consumption too. Bivalves can be both wild-harvested and actively farmed offshore and in coastal areas, with a fraction of the environmental impact of more traditional animal proteins’.*

Recent New Zealand based studies have concluded that Greenshell mussel consumption can accelerate recovery from exercise induced muscle damage⁶⁹, reduce the inflammation associated with osteoarthritis⁷⁰ and reduce knee pain in post-menopausal women⁷¹. These numerous health benefits also extend to animals, with supplements targeted at dogs, cats, camels and horses.

The Thinkstep life cycle analysis of farmed New Zealand shellfish⁷² found that:

- *‘New Zealand farmed mussels have a lower carbon footprint than all other forms of animal protein considered in this study, including protein from land animals, farmed fish, and farmed crustaceans. In addition, the carbon footprint of producing frozen half shell mussels is comparable to tofu – a major global source of plant-based protein.’*
- *‘While this study uses protein content (a macronutrient) to compare different food types, it is important to recognise that a healthy diet also requires many different micronutrients. Both mussels and oysters are very high in micronutrients – including vitamin B12, iron, zinc, and selenium – meaning that they can play an important role in a healthy diet’.*

5.4.3 Restoration Initiatives

The Marlborough industry, through MFA, contributes time and resource to projects that support the local ecosystem including the King Shag Research Project and mussel restoration.

5.4.3.1 King Shag Research

The King Shag Research Project was a collaborative, multi-year initiative launched in 2019 to better understand and protect the New Zealand king shag (*Leucocarbo carunculatus*), a nationally endangered seabird found only in the Marlborough Sounds. With a population of around 800 birds breeding on just ten small rock outcrops, the king shag is highly vulnerable and historically understudied.

MFA brought together a King Shag Working Group, including representatives from the aquaculture industry, MPI,

⁶⁸ [The Simple Shellfish That Fights Climate Change](#) BBC Future (online, last accessed 16 July 2026).

⁶⁹ Lomiwes, D., Barnes, M., Shaw, O., Ngametua, N., Sawyer, G., Burr, N., Hedderley, D., Kanon, A., Bear, T., Carroll, A., Bently-Hewitt, K., Tian, H., & Miller, M. (2023). The Efficacy of New Zealand Greenshell™ Mussel Powder Supplementation in Supporting Muscle Recovery Following Eccentric Exercise-Induced Muscle Damage in Healthy, Untrained Adult Males. *Nutrients*, 15(10):2316. <https://doi.org/10.3390/nu15102316>

⁷⁰ Abshirini, M., Coad, J., Wolber, F., von Hurst, P., Miller, M., Tian, H., & Kruger, M. (2021). Green-lipped (greenshell™) mussel (*Perna canaliculus*) extract supplementation in treatment of osteoarthritis: a systematic review. *Inflammopharmacology*, 29(4), 925 - 938. <https://doi.org/10.1007/s10787-021-00801-2>

⁷¹ Abshirini, M., Coad, J., Wolber, F., von Hurst, P., Miller, M., Tian, H., & Kruger, M. (2022). Effects of Greenshell™ mussel intervention on biomarkers of cartilage metabolism, inflammatory markers and joint symptoms in overweight/obese postmenopausal women: A randomized, double-blind, and placebo-controlled trial. *Front. Med.* 9:1063336. <https://doi.org/10.3389/fmed.2022.1063336>

⁷² Thinkstep Limited, [Life Cycle Assessment of New Zealand Mussels and Oysters](#) (Thinkstep Limited, 2021).

iwi, MDC, DOC, and several environmental groups to determine the research approach and collectively oversee the project implementation. Funding was sourced from aquaculture industry parties including MFA, Aquaculture New Zealand (AQNZ), Talley's and Clearwater.

Over the course of three years, 198 king shag were fitted with identification bands and 51 fitted with GPS tracking units. The identification bands allowed for survival rates and inter-colony movements to be monitored. The GPS trackers provided comprehensive data on foraging behaviour, as the devices not only recorded location, but also dive time and depth, along with roosting durations.

For several decades the mussel industry faced criticism that farms were excluding the king shag from critical near shore foraging habitat, with some farms ultimately being removed at the behest of the Environment Court. The research clearly demonstrated that king shag choose to forage within mussel farms, and that all king shag feeding near mussel farms rely on the buoys for safe roosting.

Critically, the research found that mussel farms do not exclude king shag from foraging habitat, and that farms are used by a large proportion of the population, and for a significant proportion of some individuals' foraging. Mussel farms are likely neutral to king shag, and if a farm is within a king shag's foraging range, it will be utilised to some degree, depending on the individual temperament of the bird.⁷³

Although research has shown that mussel farms are neutral, or potentially even beneficial to king shags, the industry (through MFA) committed to funding a further three years of research. This extended effort focused on band resighting and successfully determined the age at first breeding for several birds tagged during the early years of the study. Continued monitoring also provided extended data on overall survival rates, which when combined with first breeding age, will enable the development of a robust population model for the species.

5.4.3.2 Mussel Restoration

The Marlborough Sounds were once home to extensive wild beds of Greenshell mussels. However, due to overfishing in the 1960s and ongoing habitat changes, these beds have largely disappeared.

Recognising the vital ecological role of mussels as habitat builders and natural water filters, the mussel industry joined forces with TNC, the University of Auckland, Te Taihū Iwi Fisheries Forum, NIWA, and other partners, to explore ways to restore these historic mussel beds. In 2019, MFA secured funding from the Sustainable Food and Fibre Futures Fund (SFFF), alongside contributions from mussel companies, to develop methods for restoring wild Greenshell mussel beds in the Pelorus Sound. The project achieved significant success, with high mussel survival rates observed across the deployment sites.

Building on this momentum, a second SFFF backed project launched in 2023, again with financial and in kind support from the mussel industry. This phase expanded research into the Nelson and Tasman regions and focused on overcoming spat recruitment bottlenecks in the Pelorus Sound. Additionally, researchers investigated the ecological benefits of returning mussel shells to the seafloor. This industry supported research has laid a strong foundation for Greenshell mussel restoration efforts nationwide.

⁷³ Bell, M. (2022). [Kawau pāteketete/king shag \(*Leucocarbo carunculatus*\) Research 2018-2022](#). Toroa Consulting Limited

5.5 Cultural Benefits

Māori have a long history with aquaculture, and especially the Greenshell mussel, known as kūtai or kuku, having cultivated intertidal beds long before the arrival of European settlers. The Ahu Moana Aquaculture and Marine Farming Report for WAI 953⁷⁴ records that iwi and hapu have:

- *'Traditionally practised marine farming or coastal resource enhancement, including the collecting and cultivating of mussel spat, the transplanting of shellfish between sites, and the keeping of shellfish beds clear of competing marine life. In his opinion, the claimants viewed contemporary marine farming as an extension of their traditional practices'.*

The Tribunal found that:

- *'We therefore accept that Māori cultural practices can be seen as a precursor for modern marine farming. In other words, Māori participation in the industry is a natural and logical progression and extension of those practices traditionally exercised'*

The future of New Zealand's aquaculture sector is increasingly being shaped by Māori leadership and active participation, reflecting both deep historical connections to marine resources and aspirations for economic development. Iwi involvement is realised through direct investment in aquaculture ventures as well as through the Crown's obligations under the Māori Commercial Aquaculture Claims Settlement Act (MCACS), which guarantees iwi settlement equivalent to 20% of all new aquaculture space created in the territorial sea.

MPI noted that in 2023, the collective Māori asset base in fishing and aquaculture combined was worth \$2.3 billion⁷⁵ and it is likely that aquaculture will drive much of the value growth in future years.

Some examples of direct iwi investment in aquaculture include:

- Ngāi Tahu Investments Limited own 9.6% of Sanford Limited, one of New Zealand's largest aquaculture companies.
- Moana New Zealand Limited, a fisheries settlement entity 100% owned by 58 iwi, are the nations' largest Pacific oyster producer, along with owning water space under both Aotearoa Fisheries Limited and via a 50% shareholding in Sealord Group Limited.
- Akaroa Salmon New Zealand Limited is 25% owned by Ōnuku Rūnanga Incorporated and 25% owned by Ngāti Porou Seafoods Limited.

Aquaculture also presents significant opportunities for iwi to meet their intergenerational aspirations. The ADP specifically identifies that developing Māori participation and leadership in aquaculture will provide economic and social benefits to their communities.

Maara Moana is a prominent example of an entity established in response to MCACS. Representing the eight Te Taihū iwi (Ngāti Koata, Ngāti Apa ki te Rā Tō, Ngāti Tama, Ngāti Toa Rangatira, Rangitāne, Ngāti Kuia, Te Ātiawa o Te Waka-a-Māui, and Ngāti Rārua), Maara Moana manages a significant portfolio of settlement assets. Maara Moana is one of the largest water space owners in the Tasman region and is expected to become increasingly important in Marlborough as obligations arising from New Zealand King Salmon's Blue Endeavour project and

⁷⁴ Waitangi Tribunal.(2002). *Ahu moana: the aquaculture and marine farming report, Waitangi Tribunal report 2002* ([Wai 953](#)).

⁷⁵ Ministry for Primary Industries. (2024). *Situation and Outlook for Primary Industries*. ISBN No. [978-1-991330-47-5](#).

the MEP are settled.⁷⁶

The applicants have entered into an agreement with Maara Moana whereby:

- The farmers will execute a transfer of any space consented in Richmond Bay within 15 working days of granting of consent.
- MFA will provide preferential (non-balloted) access of up to 17.7% of any nursery lines consented at Papatua under the standard MFA lease terms and allocation methodology for the site.

Maara Moana has written a letter to the applicants (**Schedule B3**) which records that:

- The applicants first engaged with Maara Moana in April 2025, in addition to their consultation directly with individual iwi Pou Taiao and with the Te Taihu Iwi Chairs Forum.
- The eight iwi have given Maara Moana a mandate to hold the consent for the 42.2 hectares of water space proposed for Richmond Bay.

The letter thanks the farmers for '*their support of iwi aquaculture aspirations*' and notes that Maara Moana look forward to participating in the Panel process.

5.6 Best Management Practices

The applicants are all experienced marine farmers, who have operated in Marlborough for decades. Each applicant is a member of the two industry best management programmes, the A+ Sustainable Management Framework (A+) and the MFA Environmental Certification Programme (MFA ECP)^{77,78}.

The purpose of A+ is to promote the sustainable management of aquaculture in New Zealand by providing guidance for best environmental and social practice for the industry. A+ contains environmental objectives, indicators and guidance material for the industry relating to compliance, ecology, water quality, waste, resources, food safety, Iwi participation, and community. The community aspect includes navigation, communication, visual impacts, noise and employee welfare. Each operator completes an annual checklist to track their operations against the standard, and the programme includes a third party verification component to ensure reporting is accurate and trustworthy.

⁷⁶Maara Moana (2023). [Presentation for Smart Māori Aquaculture](#).

⁷⁷ Marine Farming Association, [Environmental Certification](#) (Marine Farming Association, last accessed 16 July 2026).

⁷⁸ Marine Farming Association, [Environment](#) (Marine Farming Association, last accessed 16 July 2026).



Figure 15 A+ continuous improvement programme

The A+ programme includes a set of Biosecurity Standards⁷⁹ which:

- Manage national scale industry risk pathways transparently and consistently
- Implement zone and area based biosecurity risk management; and
- Provide detailed biosecurity standards that will be implemented through company Biosecurity Management Plans (BMPs) to address biosecurity risks to the industry and the environment in which it operates through national scale zone based pathway management (Operational Zones), Management Areas and Facility level controls. The AQNZ template has been used to prepare the draft BMPs attached to this application at **Schedule E2 and E3**.

Through AQNZ the industry seeks to provide leadership in aligning efforts of other marine space users to improve the overall marine biosecurity status of New Zealand including as members of the Government Industry Agreement (GIA)⁸⁰.

The MFA ECP is a Te Taihū only programme also aimed at driving a culture of continuous improvement. Members are certified annually and operations recognised under five achievement levels. The programme comprises a 'hierarchy of controls for environmental issues/risk'. It asks:

- Can the issue be eliminated?
- Can it be isolated?
- Can we engineer a solution?
- Can we substitute the thing causing the issue with something else?
- Can we write guidelines, codes or practice or standard operating procedures to reduce the impact/risk?

⁷⁹ Aquaculture New Zealand. [A+ New Zealand Sustainable Aquaculture Greenshell™ Mussel Biosecurity Standards](#) (September 2023).

⁸⁰ [Ministry for Primary Industries Government Industry Agreement: Biosecurity](#).

The programme includes a range of operating procedures, an audit programme and independent environmental mentors who undertake random checks on farm and vessel compliance and assist in staff training. MFA hosts a trainee induction video⁸¹ for all new staff, or as a refresher, to ensure all staff are aware of the range of best management practices and the reasons behind them.

MFA also run a programme partnering with Future Post⁸² so that after their 20 to 40 year life at sea, mussel floats can be recycled into a range of 100% recycled, UV stabilised plastic posts suitable for use in conventional and specialised applications.

MFA host the industry's beach cleaning programme which has been running in Te Taihū for over 10 years and now sees the industry spending 2,000 hours per year cleaning beaches. This is supplemented by the Better Beaches Project which is sponsored by friends of the industry towards increasing the annual cleaning effort by another 1,000 hours per year.

⁸¹ Marine Farming Association, [Environment and Compliance Programme](#) (video, YouTube, 2020).

⁸² Future Post, [Our Posts](#) (Future Post, last accessed 16 July 2026).

Part 6 Assessment of Environmental Effects

6.1 The Marlborough Sounds Environment

The MEP recognises marine farming as one of the key primary industry sectors that the region relies on for its prosperity and that *'Marlborough's townships act as service centres to rural land uses and the marine farming industry.'* The MEP also recognises the importance of natural resources to the social wellbeing of the remainder of the community including for recreation and through the provision of ecosystem services. The MEP specifically recognises the importance of Marlborough's natural resources for Marlborough's tangata whenua iwi and that *'cultural beliefs and practices have developed in association with the use, development or protection of the resources by the iwi over a considerable period of time, including cultural harvest.'*

Māori have inhabited the Marlborough Sounds for more than 800 years and the first Europeans arrived in the late 1700s to subsequently establish whaling, logging and farming operations. New Zealand's marine farming industry was pioneered in the Marlborough Sounds in the 1970s building on the legacy of innovation, hard work, determination and marine based production into the highly innovative and world class industry it is today. The Marlborough Economic Wellbeing Strategy⁸³ recognises that the industry has *'created award winning local businesses in nutraceuticals, farming systems and ancillary services, such as net cleaning machines and textiles'.*

The Marlborough Sounds has a relatively small and stable population. There are two small settlements at Picton and Havelock with houses scattered across the wider Sounds, around half of which are holiday homes. Many residents have moved into the area for lifestyle and/or retirement. Tourism is Marlborough's fourth largest GDP contributor⁸⁴ and while Havelock hosts tourism activities the main hub is Picton with its ferry terminal and cruise ship dock. Marine tourism in the Marlborough Sounds primarily consists of a small number of boat based tours including charter vessels that utilise mussel farms for fishing.

The Marlborough Sounds comprise a series of drowned river valleys, which prior to settlement had a relatively stable native forest cover and clear waters⁸⁵. Since European settlement there has been a significant increase in sediment inputs which have *'caused significant ecosystem effects and contributed to a decline in benthic biodiversity'*. The Marlborough Sounds contains a number of taonga species which properly sited marine farming is not understood to adversely affect. In some circumstances, the presence of marine farms is a positive benefit.

There are no Conservation Act overlaps with the applications. Marlborough has one marine reserve, the Long Island Kokomohua Marine Reserve which is in Queen Charlotte Sound/Tōtaranui. The Onapua Bay application is at least 15km to the south of this reserve. The remainder of the applications are further afield in Outer Pelorus Sound/Te Hoiere (Richmond Bay) or the Outer Sounds.

None of the sites are within or adjacent to important habitat for protected fish and invertebrates⁸⁶. None of the

⁸³ [Marlborough District Council, Marlborough Economic Wellbeing Strategy 2022 – 2032](#)

⁸⁴ Peart, R., Restoring the Marlborough Sounds: [An oceans reform case study](#) (December 2024)

⁸⁵ Handley, S., Gibbs, M., Swales, A., Olsen, G., Ovenden, R., Bradley, A. (2017) *A 1,000 year history of seabed change in Pelorus Sound/Te Hoiere, Marlborough*. NIWA report number 2016119NE.

⁸⁶ Department of Conservation, [Protected Marine Fishes and Invertebrates](#) (Department of Conservation, last accessed 16 July 2026).

sites are within an Ecological Significant Marine Site (ESMS) as mapped in the MEP⁸⁷. All of the sites have been located over soft sediment which is common in the Sounds. No notable biogenic habitat has been identified in or around the farms. Hāpuku Rock is in the Marine Mammals Distribution overlay in the MEP, but that overlay does not denote areas of significance to marine mammals, rather areas with known presence data. All of the sites are located within the Important Bird Area which covers most of the Marlborough Sounds.⁸⁸

Expert ecological assessments have been undertaken to identify fish, marine mammal and seabird species with the potential to occur at each site and to assess the ecological effects of the proposed activities. The assessments have been undertaken in accordance with Environmental Institute of Australia and New Zealand Inc (EIANZ)⁸⁹ EclA guidelines. Species of interest include king shag (Threatened-Nationally Endangered) in the vicinity of **Papatua, Okuri Bay, Guards Bay, Hāpuku Rock** and **Richmond Bay**, and dusky dolphin (Not Threatened) at **Hāpuku Rock**.

MFA facilitated a comprehensive study of king shags which found that mussel farms have a neutral and, in some ways, positive effect but that other anthropogenic activities such as vessel activity near breeding colonies could be adverse⁹⁰. In essence, mussel farms are a safe place for king shags to rest, and king shags disproportionately feed in and around mussel farms.

Dusky dolphins are likely to be present in all parts of the Marlborough Sounds, but Admiralty Bay has been a focal point of research efforts. The dusky dolphin population has been declining in Admiralty Bay, most likely due to a range of environmental changes rather than the existing marine farms. Clearwater has proposed contributing to an Admiralty Bay dusky dolphin study similar to that of the MFA King shag study.

Peer reviewed expert landscape assessments describe the landscape and natural character context for each of the sites except for Richmond Bay which relies on evidence given during the MEP hearings.

6.2 The Cultural Environment

The project sits within Te Taihu o Te Waka-a-Māui, the prow of the waka of Māui. Today, eight Iwi form the tangata whenua of this region, with whakapapa lines from the Kurahaupō, Tainui and Tokomaru waka. Ngāi Tahu (via Te Rūnanga o Kaikōura) holds adjacent takiwā to the southeast.

The Treaty settlements for Te Taihu were legislated in 2014 and enacted on 1 August 2014 for the eight Te Taihu Iwi:

- Ngāti Apa ki te Rā Tō
- Ngāti Kuia
- Rangitāne o Wairau
- Ngāti Koata
- Ngāti Rārua
- Ngāti Tama ki Te Taihu
- Te Ātiawa o Te Waka-a-Māui

⁸⁷ Marlborough District Council, Ecologically Significant Marine Sites (Volume 4 Maps, MEP, MDC, last accessed 16 July 2026).

⁸⁸ Excluding Nydia Bay and bays south of Nydia Bay.

⁸⁹ <https://www.eianz.org/>

⁹⁰ Marine Farming Association, [King Shag Project](#) (Marine Farming Association, last accessed 16 July 2026).

- Ngāti Toa Rangatira

The settlements included Statutory Acknowledgements⁹¹ for each of the Iwi across Te Taihū as follows:

Treaty Settlement	Plan Number	Statutory Acknowledgement Area
Ngāti Kōata, Ngāti Rārua, Ngāti Tama ki Te Tau Ihu, and Te Ātiawa o Te Waka-a-Māui Claims Settlement Act 2014	OTS-202-63	Coastal Marine Area
Te Ātiawa per their Deed of Settlement	OTS-202-59	Queen Charlotte Sound Tōtaranui and Islands
Ngāti Apa ki te Rā Tō, Ngāti Kuia, and Rangitāne o Wairau Claims Settlement Act 2014	OTS-099-51, OTS-068-70	Te Tau Ihu Coastal Marine Area
Ngāti Toa Rangatira Claims Settlement Act 2014	OTS-068-70	Te Tau Ihu Coastal Marine Area

Table 17 Treaty settlement entities

Each iwi sets out statements of associations within the Statutory Acknowledgements. Aspects of relevance to this application are summarised here:

Iwi	Associations with the Application Areas
Ngāti Apa ki te Rā Tō	Identifies the outer Marlborough Sounds and coastal marine area as integral to its rohe, identity and mauri, with particular associations with Te Anamāhanga/Port Gore, Ngā Whatu Kai Pono/The Brothers, Te Matau, Tarakaipa and the wider Outer Sounds. These areas have enduring associations with Kupe traditions, settlement, pā, kāinga, wāhi tapu, fisheries and shared historic occupation with Ngāti Kuia and Rangitāne, together with continuing kaitiaki responsibilities
Ngāti Kuia	Te Hoiere/Pelorus is fundamental to Ngāti Kuia identity, whakapapa and mauri. Ngāti Kuia describes longstanding occupation and use of the Pelorus and outer Sounds for settlement, fishing, food gathering, cultivation, trade and resource use. Important associations also extend to Rangitoto ki te Tonga, Te Aumiti/French Pass, Tītīrangi, Takapourewa/Stephens Island and the Tītī/Chetwode Islands. Ngāti Kuia emphasises an ongoing responsibility to protect the mauri and cultural, spiritual, historical and traditional values of the coastal domain
Rangitāne o Wairau	Identifies the Marlborough Sounds as an important fishery, communications network and trade route, with enduring associations with Te Hoiere, Mahau, Kenepuru, Hikapu, the outer Sounds, Kura Te Au, Arapaoa, Tōtaranui and Te Anamāhanga. These areas are associated with settlement, navigation, fishing, cultivation and kaitiakitanga, and remain central to Rangitāne identity and wellbeing.
Ngāti Kōata	Identifies extensive coastal associations across Te Hoiere, Rangitoto ki te Tonga, Te Aumiti, the Croisilles, outer islands and connected coastal waters. These areas contain settlements and resource areas associated with mahinga kai, fisheries, tītī harvesting, wāhi tapu and longstanding occupation. The coast and sea are regarded as interconnected taonga, with kaitiakitanga and the protection of mauri central to Ngāti Kōata's cultural connection.
Ngāti Rārua	Describes the Te Taihū coast as an interconnected cultural landscape associated with travel, settlement, fishing, seasonal harvesting, trade and customary resource use. Its coastal values include the Marlborough Sounds within a broader network of seaways, routes and resource areas, with an emphasis on the protection of biodiversity and wāhi tapu, sustainable use, mātauranga and continuing

⁹¹ Te Taihū Statutory Acknowledgements. 2014. <https://v3au.zone-secure.net/drive/5063/375991/>

	kaitiaki responsibilities.
Ngāti Tama ki Te Taihū	Identifies the coastal marine area as an integral part of its rohe, historically used for travel, trade and access to coastal resources. Te Hoiere/Pelorus is an important and sacred awa associated with mahinga kai, wāhi tapu and enduring customary practices. Ngāti Tama emphasises longstanding occupation, ahi kā roa and continuing kaitiakitanga over fisheries and other coastal resources.
Te Ātiawa o Te Waka-a-Māui	Identifies Tōtaranui/Queen Charlotte Sound and its islands as central to tribal identity, customary authority and kaitiaki responsibilities. Kura Te Au/Tory Channel is particularly significant for its kaimoana, Kupe traditions, settlement, wāhi tapu, navigation and trade. Te Ātiawa also has substantial associations with Te Hoiere and the outer Sounds, including Port Gore, Arapaoa, Tītī Island and the Brothers, and emphasises protection of the mauri of the interconnected coastal environment.
Ngāti Toa Rangitira	Identifies Te Hoiere, Rangitoto ki te Tonga/Chetwode Islands, Arapaoa, Kura Te Au and the wider Cook Strait and Marlborough Sounds as part of an interconnected coastal domain associated with occupation, settlement, resource use, trade and maritime movement. These areas include important fisheries, settlements, wāhi tapu and strategic coastal routes, with enduring cultural and kaitiaki responsibilities.

Table 18 Te Taihū iwi associations with the project area

The Ngāi Tahu takiwā is defined in Section 5 of the Te Rūnanga o Ngai Tahu Act 1996, and the same boundaries were also adopted in the Ngāi Tahu Claims Settlement Act 1998 (NTCSA). The NTCSA includes a statutory acknowledgment for Te Tai o Marokura, which extends northwards to the boundary of the Ngāi Tahu takiwā. The applications are outside this area.

The project area is in the common marine and coastal area. Within this area there are no customary marine title or projected customary rights holders under the Marine and Coastal Area (Takutai Moana) Act 2011 (MACAA) recorded on the register⁹². The following applications for recognition or customary marine title pertain, or potentially pertain, to the proposed area under MACAA.

Application		Applicant
CIV-2017-485-251	MAC-01-12-010	Te Rūnanga a Rangitāne o Wairau Settlement Trust
CIV-2017-485-172	MAC-01-12-012	Tahuaroa-Watson Whānau, Puketapu Hapū
CIV-2017-485-365	MAC-01-12-017	Te Ātiawa o Te Waka a Māui Trust (Totaranui Queen Charlotte Sound)
	MAC-01-12-014	Te Ātiawa o Te Waka a Maui Trust (East Coast/Cloudy Bay)
	MAC-01-12-018	Te Ātiawa o Te Waka a Māui Trust (Whakatu/Te Hoiere)
CIV-2017-485-167		Te Rūnanga o Rangitāne o Kaituna Inc
	MAC-01-12-006	Ngāti Apa ki te Rā Tō
	MAC-01-12-021	Ngāti Toa Rangitira
	MAC-01-12-020	Te Rūnanga o Ngāti Kuia Trust
	MAC-01-12-007	Ngāti Koata
	MAC-01-12-008	Te Rūnanga o Ngāti Rārua Trust
	MAC-01-12-009	Ngāti Tama
	MAC-01-12-011	Rangitāne o Wairau (Hynes)
	MAC-01-12-004	Hinehau Tahuaroa-Riwaka Houra Whanau (Waikawa)

⁹² <https://www.linz.govt.nz/our-work/Māori-and-Iwi-development/marine-and-coastal-area-register>

	MAC-01-11-003	Muaupoko
	MAC-01-13-002	Ngāi Tahu Whanui
	MAC-01-13-003	Ngai Tuahuriri hapu

Table 19 MACAA applicant groups

The project is not in an aquaculture settlement area under s12 of the Māori Commercial Aquaculture Claims Settlement Act. The eight iwi hold aquaculture settlement space in Golden and Tasman Bays under the collective entity Maara Moana.

The project areas do not include a taiāpure or a mātaimai reserve, however Ngāti Kuia have applied for a mātaimai in an area that includes Guards Bay.

The applicants recognise that Te Taihu Iwi are seeking to manage their customary fishing interests through the Fisheries (South Island Customary Fishing) Regulations 1999 and the area of management will overlay the application sites. The settlement agreements require fisheries decision makers to consult the Iwi governance entity where policy or regulatory change may affect fisheries in their area of interest. The Fisheries (Notification for Area/Rohe Moana of Te Tau Ihu o Te Waka a Māui) Notice 2025 (Notice No. MPI 1919) identifies the eight Te Taihu iwi as representatives of the customary food gathering rohe moana.

Under the Fisheries (South Island Customary Fishing) Regulations 1999, the Fisheries (Notification for Area/Rohe Moana of Te Taihu o Te Waka a Māui) Notice 2025 (Notice No. MPI 1919)⁹³ established the customary food gathering area/rohe moana of Te Taihu iwi within the South Island fisheries waters, which includes the project area. The tangata whenua under this notice are:

- Ngāti Apa ki te Rā To Trust;
- Te Pātaka a Ngāti Kōata;
- Ngāti Rārua Iwi Trust;
- Ngāti Tama ki Te Waipounamu Trust;
- Te Rūnanga o Toa Rangatira Incorporated;
- Te Ātiawa o Te Waka-a- Māui Trust;
- Rangitāne o Wairau Settlement Trust; and
- Te Rūnanga o Ngāti Kuia Trust.

Seven iwi are recorded as being in negotiation with the Marlborough District Council to agree Mana Whakahono ā Rohe arrangements⁹⁴ pending Government decisions on RMA replacement legislation.

6.3 Overview of Effects

The environmental effects of marine farming in the Marlborough Sounds are well researched and well understood.

In its submission to the Resource Management (Extended Duration of Coastal Permits) Bill⁹⁵ AQNZ noted the

⁹³ <https://gazette.govt.nz/notice/id/2025-go1207>

⁹⁴ Ministry for Cities, Environment, Regions & Transport., [Mana Whakahono ā Rohe: Iwi participation arrangements](#) (last updated 24 July 2026).

⁹⁵ Aquaculture New Zealand, [Submission on the Resource Management \(Extended Duration of Coastal Permits for Marine Farms\) Amendment Bill](#) (Aquaculture New Zealand, 2024).

significant and wide ranging research into the effects of the industry that has been carried out over the last 40 years across a range of topics including seabed, water column, indigenous biodiversity, ecosystem services, wild fish populations and carbon profile. Much of this data has been collected as part of industry monitoring programmes giving researchers, managers and central government greater confidence about how existing and new developments interact with the environment at local and regional scale. The primary potential effects were summarised by MPI in 2013⁹⁶ and those of longline mussel farming are replicated in Figure 16 below. The effects of longline oyster farming and seaweed farming are similar in varying degrees.

Figure 2.1: Diagram illustrating the actual and potential ecological effects from long-line mussel farming

Source: Based on Keeley et al., 2009.

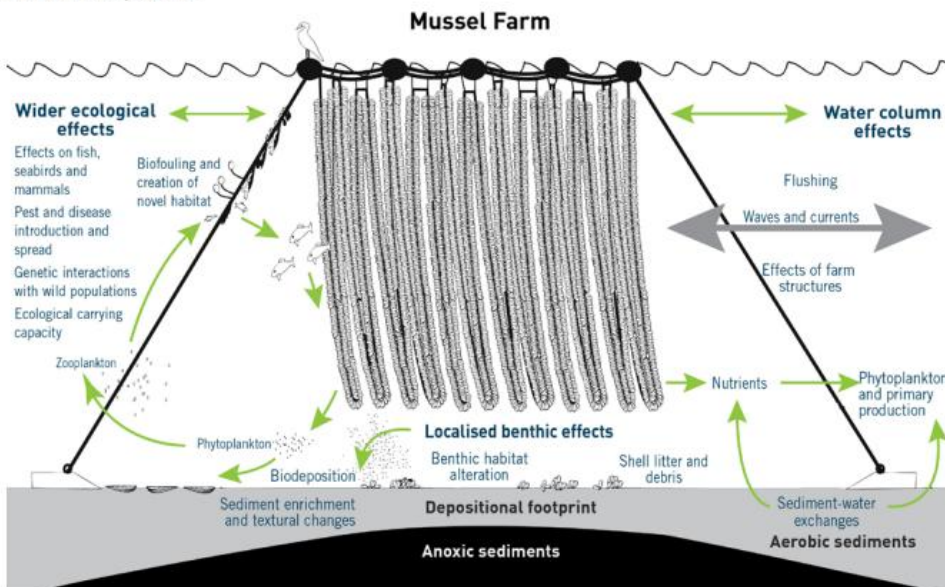
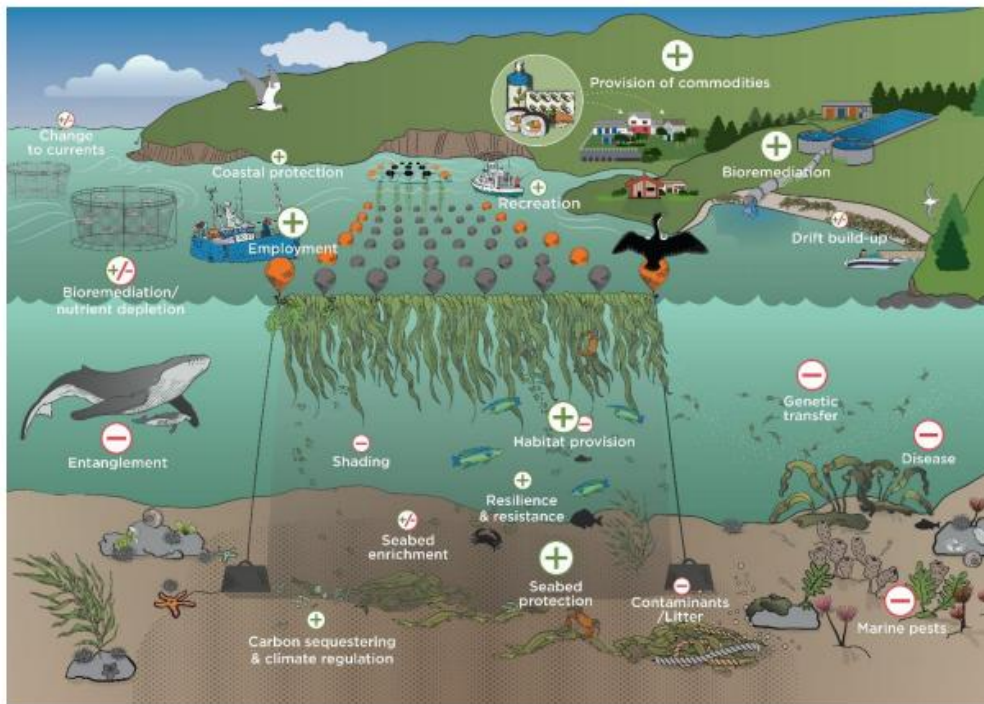


Figure 16 Environmental effects of longline mussel (and oyster) farming

A 2021 Sustainable Seas report⁹⁷ depicted a range of effects of seaweed farms

⁹⁶ Ministry for Primary Industries, [Literature Review of the Ecological Effects of Aquaculture](#) (MPI, Cawthron Institute and NIWA, 2013) ISBN 978-0-478-38817-6.

⁹⁷ Clark DE, Newcombe E, Clement D, Magnusson M, Lawton RJ, Glasson CRK, Major R, Adams S (November 2021) [Stocktake and characterisation of Aotearoa New Zealand's seaweed sector: Environmental effects of seaweed wild-harvest and aquaculture](#).



Development of Aotearoa New Zealand's seaweed sector will require a shift towards aquaculture to allow an increase in yields without placing pressure on wild seaweed populations. This diagram shows the possible negative environmental effects and ecosystem services associated with seaweed aquaculture in subtidal environments. The likely nature and degree of effect is indicated by large or small '-' or '+' symbols. Graphic by Revell Design.

Figure 17 Effects of seaweed aquaculture

Each of the applications is supported by a series of technical reports either specific to their application or that cover one or more of the applications, including an overarching project specific EcIA detailed in **Section 6.4** below. The technical reports, including an index, are provided in **Schedule D**. Where relevant, the recent research reports in **Schedule I** also provide context to the assessment of effects.

Taken together, the technical assessments consistently find that the proposed farms are located over soft-sediment habitats of relatively low ecological value, that biosecurity risks are negligible, that effects on seabirds (including king shag) are neutral, and effects on marine mammals are generally no more than minor except for potentially low to moderate effects on dusky dolphin.

The following sections describe the effects that are general across the applications noting that Parts 7 to 12 (the application specific Parts) describe effects that may be specific to those specific sites.

6.4 Coastal Ecological Impact Assessment

Robertson's EcIA (**Schedule D21**) considers five ecological domains relevant to the coastal receiving environment and proposed activity, namely seabed (benthic) habitat, pelagic (water column) habitat, wild fish, seabirds and marine mammals.

The assessment was undertaken in accordance with the EIANZ framework including characterisation of the existing environment, assignment of ecological value, assessment of potential effects, consideration of proposed mitigation measures and consideration of any monitoring requirements. The assessment drew on existing project and/or site specific supplemented by existing ecological information for the application sites and the wider Marlborough Sounds.

Robertson provided a summary of the principal information base available for each site and domain in Table 2-1 noting that while no dedicated fish, seabird or water column field surveys were undertaken at any site the assessments were consistent with standard EclA practice. While Robertson reported a data gap for marine mammal distribution at Onapua Bay the conservative approach taken in the assessment is considered appropriate given *'the adjacent and intensively surveyed Kura Te Au / Tory Channel does not show elevated dolphin occurrence that would suggest materially different use of Onapua Bay itself'*.

Robertson assessed the construction and operation effects of the projects at two Zone of Influence (ZOI) scales:

- **Site ZOI** – the near field area relevant to direct and local effects associated with an individual farm, including structures, associated activity and the immediately affected receiving environment.
- **Project ZOI** – the wider area relevant to indirect, cumulative, regional or population level effects associated with all six farms.

Robertson described the ecological values for each farm's Site ZOI and Project ZOI across the domains. For the most part, the sites share similar values however seabed values are specific to each site. These are described in more detail in the application specific parts **Part 7** to **Part 12**. The shared ecological values and ecological value ratings for wild fish, seabirds, marine mammals and the pelagic habitat (water column) are summarised in Table 20 below.

	Site ZOI		Project ZOI	
	Ecological values	Rating	Ecological values	Rating
Wild fish	Individual farm areas support sparse, low diversity soft sediment fish assemblages. They are not identified as important reef fish or spawning habitat, and no TAR fish are recorded or predicted.	Low	The wider Sounds/embayment context contains locally uncommon or distinctive fish species and habitats and provides for broader population connectivity. No TAR fish are recorded or predicted.	Moderate
Seabirds	The farm areas and adjacent waters may be used by mobile seabirds, including the Nationally Endangered kawau pāteketake/king shag.	High	The wider Sounds/embayment context includes multiple king shag breeding and roosting sites together with the wider assemblage of TAR seabirds and the importance of the Marlborough Sounds colony, roost and foraging network.	Very High
Marine mammals	The individual farm areas and adjacent waters may provide local foraging, transit, resting, or other functional habitat for a suite of mobile marine mammals, including TAR taxa. Hāpuku Rock is recorded as important habitat for dusky dolphin (Not Threatened).	High	The Project ZOI contains multiple TAR taxa, including killer whale, bottlenose dolphin, Hector's dolphin, southern right whale, goose beaked whale and humpback whale, the approximately 211 resident bottlenose dolphins and the wider populations of dusky dolphins that use Admiralty Bay seasonally as part of a substantially larger east coast South Island population.	Very High
Pelagic habitat	Farm water columns are representative of the relevant outer Marlborough Sounds environment, with no identified	Low	Despite the Project ZOI contributing to wider food web and connectivity processes the broader pelagic values are	Low

	rare or distinctive water column features, unusual planktonic assemblages, or concentrated pelagic ecological functions.		also representative and non distinctive.	
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Table 20 Ecological domains and zones of influence

Robertson also undertook an assessment of cumulative effects and set out biosecurity considerations for the project. These are addressed in **Section 6.8 and 6.15** as well as the site specific assessments in **Parts 7 to 12**.

Robertson provides a summary of potential ecological effects, EIANZ assessment and management response in Table 5-2, replicated over.

Table 5-2 Summary of potential ecological effects, EIANZ assessment, and management response.

Ecological domain	Ecological value	Potential adverse effect	Magnitude of effect (EIANZ)	Level of effect (EIANZ)	Avoid, remedy or mitigate
Seabed (benthic) habitat	Low: soft sediment, all Sites; High: reef, Onapua Bay	Temporary anchor disturbance; localised operational biodeposition beneath structures altering soft sediment conditions	C: Negligible; O: Negligible in soft sediment; Negligible at reef tip	C: Very Low; O: Very Low in soft sediment and at reef tip	Avoid reef effects at Onapua Bay through the 0.068 ha exclusion zone; no further measures required
Wild fish	Low-Moderate	Brief vessel/sediment-disturbance avoidance; potential localised displacement from biodeposition affected seabed	C: Negligible; O: Negligible	C: Very Low; O: Very Low	No further measures required; works are brief, no TAR species recorded, and structures may provide refuge
Seabirds, including king shag	High-Very High	Localised disturbance or change in access to foraging habitat	C: Negligible; O: Negligible	C: Very Low; O: Very Low	Maintain proposed Site locations and colony buffers; no further measures required
Marine mammals	High-Very High	Temporary construction-related avoidance; potential operational avoidance, habitat-use change and entanglement risk	C: Negligible; O: Negligible at five Sites; Negligible–Low at Hapūkū Rock Site ZOI and Negligible at Project ZOI/population scale	C: Very Low; O: Very Low at five Sites; Very Low–Low at Hapūkū Rock Site ZOI	Implement MMMP and vessel protocols; retain non-continuous Hapūkū Rock layout and movement space
Pelagic habitat	Low	Localised, temporary phytoplankton and zooplankton reduction in water passing through farms	C: Negligible; O: Negligible	C: Very Low; O: Very Low	No further measures required
Cumulative ecological effects (Project ZOI)	Low-Very High across domains	Incremental addition of approximately 280 ha of dispersed mussel farms to an existing approximately 3,700 ha regional footprint	Negligible	Very Low	Embedded design, reef exclusion, colony buffers, MMMP and vessel protocols are sufficient; no further cumulative measures required

Notes: C = construction; O = operation; TAR = Threatened At Risk; MMMP = Marine Mammal Management Plan; ZOI = Zone of Influence.

Table 21 Summary of ecological effects and recommended management responses

Robertson concludes that, when taking into account the design and operation of the project including the range of measures proposed to avoid or minimise effects:

- Construction effects are very low across all ecological domains
- Operational effects are very low across all ecological domains except for marine mammals at Hāpuku Rock where they are very low to low.

In summary, Robertson finds that with the proposed mitigations implemented, all assessed ecological effects, including cumulative effects, are considered to be **no more than minor**.

6.5 Seabed Effects

Site specific seabed effects are set out in **Parts 7 to 12**. Robertson's EclA in **Schedule D21** identifies temporary construction effects as negligible across all sites. Given the low ecological value of the soft sediment habitats within each farm's direct footprint the overall seabed effects are assessed as low or **no more than minor**.

6.6 Water Column Effects

Robertson notes that Papatua Bay, Guards Bay, Hāpuku Rock, and Okuri Bay) occur within connected Outer Sounds coastal and embayment waters while Richmond Bay and Onapua Bay are in relatively more sheltered, less well flushed embayments rather than an outer Sounds setting. While water column conditions may vary between the sites no specific ecological values have been identified for any of the applications. Pelagic production values are widespread across the Project ZOI and are not known to have specific value within the Site ZOIs. Robertson cites monitoring data which indicates that while phytoplankton and zooplankton depletion may occur locally within farms, even in the more sheltered areas of Richmond Bay and Onapua Bay residence times are expected to be relatively short.

Robertson identifies the principle operational effects on pelagic habitat is depletion of phytoplankton and zooplankton concentrations through shellfish filter feeding, offset in part by positive filtration and nutrient cycling services. While this depletion effect is likely to be measurable in water passing directly through individual farms any resulting reduction in chlorophyll a at the wider bay or Sounds scale will be minor, not consistently evident across monitoring locations, and not strongly correlated with the extent of marine farming.

Robertson concludes that, given the low existing ecological value of the pelagic habitat at all sites, and the 'modest scale' of the project relative to the existing baseline, effects on the water column will be negligible to low at all six sites and **no more than minor**.

6.7 Marine Mammal Effects

Despite aquaculture occurring in Aotearoa for decades, very few incidents with marine mammals have been reported.

The most recent review of the effects of longline aquaculture on marine mammals was undertaken as part of the proposed Marlborough Environment Plan process. Dr Deanna Clement and Dr Simon Childerhouse gave evidence on behalf of the industry. Andrew Baxter gave evidence on behalf of the Department of Conservation (DOC). The evidence was to the effect that the existing industry had no substantive effect on marine mammals. The MDC panel made an express finding to that effect on the strength of that evidence⁹⁸.

⁹⁸Marlborough District Council, [*Full Decision of the Marlborough Environment Plan Hearing Panel*](#) (MDC, 2020) at [206]–[222].

As noted above, dusky dolphins in Admiralty Bay are a species of particular interest. Pearson (2008), in a study of dusky dolphin fission–fusion behaviour in Admiralty Bay, tested the hypothesis that mussel farms could disrupt dolphin use of the bay by fragmenting parties and constraining normal behaviour. Relative to nearshore areas without farms, the study predicted smaller party sizes, increased party fission and travelling, and reduced foraging, resting and socialising in proximity to mussel farms.

The results did not support those predictions. Rather, dolphin party size was not significantly reduced near mussel farms; foraging activity was higher, travelling was lower, and the rate of party fusion increased, while party fission was not found to increase. Pearson observed that dolphins appeared to use waters **near**, but generally not within, mussel farms for foraging. The thesis suggested that farm associated structures or edge effects might influence prey distribution, while emphasising that this mechanism had not been established and that further work on prey abundance and distribution was required. Accordingly, the findings indicate an association between farm proximity and dolphin behaviour, but do not demonstrate that mussel farms cause either a positive or adverse effect on dusky dolphins

Helen McConnell of SLR Consulting has provided technical advice on the effects of these applications on marine mammals⁹⁹. This is included in **Schedule D20**.

The letter sets out that the potential effects on marine mammals have been previously reported by numerous authors and categorised into:

- Displacement from habitat;
- Entanglement;
- Behavioural modification;
- Underwater noise disturbance;
- Alterations to trophic pathways;
- Marine debris; and
- Boat strike

The letter focusses on *'habitat displacement which is recognised as the main impact of shellfish aquaculture to affect marine mammals in New Zealand and entanglement, which poses the only realistic risk of mortality associated with farm structures'*.

The letter considers the general distribution of key species that are known to frequent the Marlborough Sounds and immediate surrounds. These are:

- New Zealand fur seals
- Bottlenose dolphins
- Dusky dolphins
- Common dolphins
- Killer whales
- Hector's dolphins
- Southern right whales
- Humpback whales
- Beaked whales

⁹⁹ McConnell, H. and Govier, D., *Technical Advice: Marine Mammals — Marlborough Aquaculture* (2026) (**Schedule D20**).

Other species which may occur as rare visitors from time to time which generally remain outside of the Marlborough Sounds in the deeper waters of Cook Strait were not considered to be at risk from marine farms.

With regard to displacement:

- Robust inferences were able to be made as there is sufficient information to enable a good understanding of the marine mammal species that are likely to occur in and around the Marlborough Sounds.
- The most conservative approach would be to assume that displacement will occur from the confirmed areas that would be occupied by new farm structures, noting this represents a 7.6% increase in the total area of mussel farms in the Marlborough Sounds.
- However, there is no evidence that the presence of farms alone specifically causes displacement on a broader scale, *'indeed there is emerging evidence that some species preferentially use habitat adjacent to mussel farms'*.
- *'Given the large home ranges of marine mammals, it therefore seems unlikely that localised displacement from any discrete area occupied by shellfish farms would result in population levels effects for any species with an identified potential presence.'*

With regard to entanglement:

- *'The consequences of entanglement include injury and/or mortality; and is therefore of primary concern.'*
- *'However, despite an extended history of longline mussel farming in New Zealand (c. 50 years) very few marine mammal entanglements have been reported' and 'entanglement rates have remained low despite the overall growth in the aquaculture sector through time.'*

Note that of the five mussel entanglements recorded in the last 50 years:

- One Bryde's whale was reported in entangled in mussel spat farm ropes in the Hauraki Gulf near Great Barrier Island in 1996 and spat farming practices have changed to reduce risk since then.
- Three were likely dead before they entangled (Bryde's whale and Humpback whale in the Firth of Thames and Sei whale in Port Ligar). Industry reports¹⁰⁰ that the Bryde's whale was heavily decomposed when discovered in the farm.
- One was most likely dead before it entangled (Minke whale in Admiralty Bay). Industry reports that whale was also decomposed when it was found.¹⁰¹

The letter finds that overall, the risk of marine mammal entanglement is low when farms are operated in accordance with best practice including all lines kept tensioned with no loose ropes trailing at the surface or in the water column.

As recommended, best management practices have been set out in the draft Marine Mammal Management Plan (MMMP) included with this application as **Schedule E1** which are proposed as a conditions of consent as set out in **Schedule F**.

The letter considers that for all sites except Hāpuku Rock marine mammal monitoring is not recommended as *'the available information suggests there are no known marine mammal sensitivities at the other proposed sites.'* Site specific considerations for Hāpuku Rock are considered in **Part 9**.

¹⁰⁰ Allan Bartrom pers comm

¹⁰¹ Mike Mandeno pers comm

The applicants have engaged with DOC on the draft MMMP as set out in **Schedule C**, as a result of which, DOC proposed a range of amendments. The applicants then liaised with Helen McConnell on DOC's comments, and she has prepared a response setting out a schedule of consequential amendments, provided as **Schedule D13**. Those amendments have subsequently been incorporated into the MMMP.

Overall, with the proposed MMMPs in place as mitigations, the effects on marine mammals from activities at Papatua, Guards Bay, Okuri Bay, Richmond Bay and Onapua Bay are considered low, or **no more than minor**.

6.8 Seabird Effects

6.8.1 Introduction

Rachel McClellan has provided technical advice on the effects of the applications on seabirds, provided in **Schedule D19**.

McClellan records that eBird data indicate at least 40 seabird species in the wider Marlborough Sounds, and that of those with breeding populations in New Zealand waters, all but two are At Risk or Nationally Threatened. Petrels, shearwaters and albatrosses forage mainly in the open ocean and rarely enter the Sounds, the principal exception being the pakahā/fluttering shearwater (At Risk–Relict), which is common in the inner Sounds. Four shag species breed in the Sounds and a fifth forages there, all Threatened or At Risk with kawau pāteketeke/king shag (Threatened–Nationally Endangered) the most threatened and breeding only in the Marlborough Sounds.

The key breeding species and their threat status are summarised below.

Species	Threat status	Relevance to the proposal
Kawau pāteketeke/ king shag	Threatened – Nationally Endangered (breeds only in the Marlborough Sounds)	Research shows birds actively forage within longline mussel farms. The effect on the species is neutral overall
Four breeding shag species (plus a fifth foraging)	All Threatened or At Risk	Use farms for roosting and foraging, no colonies near the proposed sites
Kororā /little blue penguin	At Risk – Declining	Breeds throughout the Sounds, no farm related effect identified
Pakahā /fluttering shearwater	At Risk – Relict	The petrel/shearwater most common in the inner Sounds, pelagic foragers least likely to be affected
Tarāpunga/red-billed gull, tara/white-fronted tern	At Risk – Declining	Breeding colonies in the Sounds, some follow harvesting boats
Takapū/Australasian gannet, karoro/black-backed gull	Not Threatened	Nest and forage in the Sounds, gannets in two colonies

Table 22 Seabird species in the project area

6.8.2 Longline Mussel Farms as Bird Habitats

McClellan outlined a number of aspects of longline mussel farms that serve to provide bird habitat. Buoys provide safe roosts away from terrestrial predators as well as supporting greater fish recruitment and abundance in comparison to non-farmed habitat because of increased benthic biodiversity and structural complexity, *'it could be expected then that the farms have the potential to provide a food source for a range of bird species'*. McClellan finds the use of oyster farms would be comparable to mussel farms.

McClellan summarised the findings of the king shag project described in **Section 5.4.3.1** which delivered groundbreaking new research on the difficult to study species. It included chick banding and GPS tracking of adult birds which demonstrated that king shag have very individual foraging behaviour, with some birds preferring shallow water over a soft bottom, while others prefer to dive deep around reef structures. The data showed that the tracked birds used farms markedly more than control sites with Pelorus Sound based birds using farms more most likely because there were more farms within foraging range.

McClellan noted that petrels, shearwaters and penguins tend to have very large foraging ranges and that of these kororā are likely to use mussel farms for foraging on occasion.

6.8.3 Seabird Effects

McClellan identified multiple threats facing Marlborough Sounds seabirds including competition with fishing for key prey species, potential direct mortality from accidental capture in pots or setnets, predation by introduced terrestrial mammals and native gulls, adjacent land use and trawling causing major alterations to the seabed through sedimentation and disturbance, climate changes altering prey availability and habitat, and human disturbance.

With regard to the effects of the applications McClellan found that:

- *'In my opinion, the proposed spat nursery and mussel production farms will not have negative effects on seabird species of the Marlborough Sounds. The farms are more likely to have positive effects on species that use the farms for safe roosts from which they can forage, both within and adjacent to mussel farms. Pelagic seabird species forage out to sea and are the least likely to be affected.'*
- *'King shag are a very rare species restricted to the Marlborough Sounds. Research focused on the interactions of the species with longline farms has unequivocally shown that birds use the farms for foraging, and that the farms have a neutral effect on the species overall, with individuals exhibiting a variety of foraging strategies from almost exclusive use to low use of mussel farms.'*

6.8.4 Mitigation

McClellan recognises that the industry already undertakes the two most applicable management actions, participating in a number of initiatives to minimise waste and debris through the MFA ECP and avoiding the disturbance of King shag colonies.

The proposed consent conditions (**Schedule F**) include conditions requiring taking whatever steps are reasonably necessary to avoid non-biodegradable debris being lost from the farm¹⁰² and to carry out programmes of beach cleaning¹⁰³ as well as a condition to ensure that *vessels servicing the farm stay at least 200 metres from any king shag colonies or roosting sites*.¹⁰⁴ Note that this is more conservative than the MEP requirement to stay 100 metres away.¹⁰⁵

6.8.5 Conclusion

McClellan concludes that the proposed farms will not have negative effects on the seabird species of the

¹⁰² C15 (Papatua), C13 and 17 (Guards Bay), C12 and 16 (Okuri Bay), C13 and 17 (Hāpuku Rock), C12 and 16 (Richmond Bay) and C12 and 15 (Onapua Bay).

¹⁰³ C16 (Papatua), C14 (Guards Bay), C13 (Okuri Bay), C 14 (Hāpuku Rock), C13 (Kapaua) and C13 (Onapua Bay).

¹⁰⁴ C17 (Papatua), C15 (Guards Bay), C14 (Okuri Bay), C 15 (Hāpuku Rock), and C14 (Kapaua).

¹⁰⁵ Rule 16.7.10 [Operative in part - Rules - Chapter 16 - Coastal Marine Zone \(Updated 20 July 2026\)](#).

Marlborough Sounds and are more likely to have positive effects for species that use the farms as safe roosts from which to forage. Pelagic species that forage out to sea are the least likely to be affected.

In relation to king shag specifically, she concludes:

- *'Research focused on the interactions of the species with longline farms has unequivocally shown that birds use the farms for foraging, and that the farms have a neutral effect on the species overall, with individuals exhibiting a variety of foraging strategies from almost exclusive use to low use of mussel farms.'*

On this basis, and with the proposed conditions managing farm debris and vessel transit near king shag colonies, the effects on seabirds from activities at all sites are considered to be **neutral overall, or less than minor, and in some respects positive.**

6.9 Fisheries Resources Effects

Robertson considers the ecological effects of the applications in the context of fisheries resources in the overarching EclA in Schedule D21. As noted above, the positive effects expected include the provision of habitat in areas which would otherwise be soft sediment and the addition of community complexity to the water column. While construction phase vessel activity and localised sediment disturbance may cause transitional effects on fish these will have a negligible overall effect. During the operational phase farm structures may cause some localised displacement of soft sediment associated species this will be offset by the habitat enhancement effects. Due to the absence of Threatened or At Risk (TAR) fish species operational effects will overall be negligible.

Furthermore, there is a growing body of environmental research that demonstrates that marine farms have a positive effect on fish abundance. Mussel farming can provide benefits for pelagic and benthic species of both conservation and commercial importance while producing sustainable protein to feed a growing population.

No information is available which might suggest that any of the locations are inappropriate from a Fisheries Act perspective. The applicants wrote to FNZ on 19 August 2026 and were advised that they did not require any further information nor have any further questions.

Overall, the effects on fisheries resources are considered **no more than minor.**

6.10 Biosecurity Effects

Biosecurity is defined in the MPI Aquaculture Biosecurity Handbook¹⁰⁶ as *'the exclusion, eradication or effective management of risks posed by pests and diseases to the economy, environment and human health'*. Biosecurity risks can be triggered by animals, plants and microorganisms capable of causing diseases or otherwise adversely affecting New Zealand's natural, cultural, recreational, amenity or economic values.

The handbook notes that while New Zealand's geographical isolation has kept the industry relatively free from the pests and diseases commonly experienced overseas, emerging and introduced pests remain a threat as they can lead to production losses and impacts on trade. While marine farming is one aspect of a broader and

¹⁰⁶ Ministry for Primary Industries, [*Aquaculture Biosecurity Handbook: Assisting New Zealand's Commercial and Non-Commercial Aquaculture to Minimise On-Farm Biosecurity Risk*](#) (MPI, 2016).

connected biosecurity system, the handbook recognises the industry's important role in adopting best management practices. It is in every marine farmer's best interest to manage biosecurity risks to avoid loss of stock.

The New Zealand aquaculture industry operates in accordance with its A+ Biosecurity Standards¹⁰⁷ as set out in **Section 5.6 of Part 5**. All applicants are members of A+ and operate within the A+ biosecurity standards.

The referral decision set out a requirement that, pursuant to Section 27(3)(b)(ii) of the Act, the substantive application must include an assessment of the biosecurity risks of the proposed project for the spread of marine pests and diseases, along with a corresponding biosecurity management plan. Draft BMPs are attached to this application in **Schedule E2 and E3**. Those were sent to BNZ for comment, on 19 August 2026.

The new sites proposed do not have any different risk profile from the existing marine farming industry. The activities sought to be enabled on the new space can all be undertaken on existing industry space. The once exception is if flat oysters are farmed in Onapua Bay in which case separate permissions may be required under the Biosecurity Act 1993. The purpose of that application is to enable best practice biosecurity measures through single year class separation in conjunction with existing sites in nearby Oyster Bay. Flat oyster specific biosecurity considerations for Onapua Bay are set out in **Part 12**.

Robertson considered the biosecurity effects of the applications in the overarching EclA in **Schedule D21** noting that within the Sounds farm structures are routinely monitored for pest species including *Styela clava*, *Didemnum vexillum*, *Sabella spallanzanii* and *Caprella mutica*. *Undaria pinnatifida* is well established and stable in Tory Channel. The assessment considered the applicants' participation in the A+ Biosecurity Standards, and the proposal to undertake operations in accordance with BMPs included in the draft conditions in the context of the general biosecurity risk pathways and found the biosecurity risk to be very low.

The assessment did not consider flat oyster farming at Onapua Bay which is addressed separately in **Part 12**. Note that while Apex is the only applicant proposing to undertake flat oyster farming, the flat oyster species *Ostrea chilensis* is already consented on more than 200 farms in Marlborough and the applications for Okuri Bay and Richmond Bay also include flat oysters.

Overall, with the proposed BMPs in place as mitigations, the biosecurity effects from activities at Papatua, Guards Bay, Okuri Bay, Hāpuku Rock and Richmond Bay are considered low, or **no more than minor**.

6.11 Landscape and Natural Character Effects

Both the RMA and the NZCPS state that outstanding natural features and landscapes are important matters to consider in the resource management context. 'Outstanding' is not defined in the legislation or the policy document, so is typically given its ordinary meaning, something akin to exceptional.

The New Zealand Institute of Landscape Architects (NZILA) in Te Tangi a Te Manu¹⁰⁸ finds that '*landscape embodies the relationship between people and place. It is the character of an area, how the area is experienced*

¹⁰⁷ Aquaculture New Zealand. [A+ New Zealand Sustainable Aquaculture Greenshell™ Mussel Biosecurity Standards](#) (September 2023).

¹⁰⁸ Te Tangi a te Manu: [Aotearoa New Zealand Landscape Assessment Guidelines](#), Tuia Pita Ora New Zealand Institute of Landscape Architects (July 2022).

and perceived, and the meanings associated with it'.

A landscape is an area that is perceived as a whole, either experienced from within or seen as the whole of an outlook. By contrast, a feature is a discrete element within a landscape, but one that still has integrity as a whole element.

Landscape and natural character have been the subject of an assessment process as part of the MEP process. Unless otherwise noted, all provisions in the plan referred to in these proceedings are operative. With one relevant exception in this case, the provisions relating to landscape outline shared values held by the community. The exception is in respect of tangata whenua values. The Council acknowledged in its Natural Character Study of 2014¹⁰⁹ that *'no engagement with tangata whenua has yet been undertaken as part of this study to identify the particular natural character attributes, notably experiential attributes such as 'Mauri' that are characteristic within the coastal environment'*. This is a recognised gap.¹¹⁰

In the Landscape Study¹¹¹ a similar statement is made:

- *'There are a variety of natural features and landscapes in Marlborough that are clearly special for, or wildly known and influenced by, their connection to the Mauri values inherent in the place. These landscapes (or parts of them) have been identified, as best as practicable as having particular regional importance to tangata whenua. No liaison with tangata whenua has taken place during the assessment of this Landscape Study. This is a recognised gap in the study.'*¹¹²

Those gaps continue to the present day. The schedule of landscape values¹¹³ starts with the acknowledgement:

- *'No liaison with Marlborough's tangata whenua iwi has taken place during the assessment of these values. This is a recognised gap in this appendix of values.'*¹¹⁴

In the absence of the identification of tangata whenua values both from the protection of preservation and also from the perspective of development is a cause for concern. Such matters are *'to be borne in mind at every stage of the planning process'*.¹¹⁵

Consequently, while the plan provisions can be assumed to reflect the Te Ao Pākehā perspective, they say nothing helpful about Te Ao Māori and consequently cannot be relied on as a comprehensive statement of landscape values and natural character characteristics. It is for the panel to synthesise the plan provisions with the Te Ao Māori perspective as identified through consultation and through evidence given to the panel.

The applicant has not attempted to undertake that synthesis exercise itself. That is because concepts in Te Ao Māori and landscape do not neatly overlap.¹¹⁶ Translating natural character into Te Ao Māori is even more

¹⁰⁹ Natural character of the Marlborough Coast: Defining and Mapping the Marlborough Coastal Environment, Marlborough District Council, June 2014.

¹¹⁰ Page 23.

¹¹¹ Marlborough Landscape Study, prepared by Boffa Miskell for Marlborough District Council, August 2015.

¹¹² Page 19.

¹¹³ Volume 3, Appendix 1 – [Landscape Schedule of Values](#).

¹¹⁴ Volume 3, Appendix 1 – [Landscape Schedule of Values](#), page 1. There is no equivalent statement in the natural character appendix. Although we understand the position to be identical.

¹¹⁵ *McGuire v Hastings District Council* [2000] UKPC 43, [2002] 2 NZLR 577 at [21].

¹¹⁶ Te Tangi a te Manu page 37

complex. In order to fully engage with the concepts significant work needs to be done in order to explain them. Tangata whenua only has a limited ability to engage in resources such as this. It was more efficient for tangata whenua and for the applicant to consult on the merits of the application as a whole rather than separating the consultation into its resource management elements. As a consequence, the peer reviewed landscape assessments undertaken for the applicant primarily address landscape and natural character as it is assessed in the MEP.

As part of the MEP process, appeals were lodged by some of the applicants against the landscape and natural character overlays of the sites proposed in the application. Although those appeals have been withdrawn, the MEP overlays are not determinative of the outcome of this application. There are also existing marine farms within such overlays that are provided AMAs in the MEP. Being in an overlay does not prohibit any activity.

Both the MEP plan provisions¹¹⁷ and the case law that has developed surrounding the interpretation of the NZCPS is consistent: *'much turns on what is sought to be protected'*.¹¹⁸

Adverse effects do not necessarily equate with visibility.¹¹⁹ Rather, the question is whether any of the values that have been identified for the sites in question are infringed. What we have said should not be misinterpreted that a landscape is merely a sum of its parts. We acknowledge that landscape is the interaction of its dimensions rather than (merely) the dimensions themselves.¹²⁰ However, a prerequisite for an interaction is that the value or characteristic is present in the first place. Identifying the relevant values or characteristics is therefore critical. That is particularly so in the context of this plan where there are specified enumerated attributes, characteristics and values against which a proposal needs to be assessed. Table 23 below provides a summary of the assessments set out for each site in **Parts 7 to 12**.

¹¹⁷ MEP Volume 1, Chapters 7 and 8 [Operative in part - Policy - Chapter 7 - Natural Character \(Updated 14 April 2026\)](#); [Operative in part - Policy - Chapter 8 - Landscape \(Updated 14 April 2026\)](#).

¹¹⁸ *Environmental Defence Society Inc v The New Zealand King Salmon Co. Limited* [2014] NZSC 38, [2014] 1 NZLR 593 at [100] and [105]. *Man O' War Station Limited v Auckland City Council* [2017] NZCA 24 at [53] and [65]. *Western Bay of Plenty v Bay of Plenty Regional Council* [2017] NZEnvC 147 at [163] to [167]. *Hawthenden Limited v Queenstown Lakes District Council* [2019] NZEnvC 60 at [30] and [246]. *Upper Clutha Environmental Society Incorporated v Queenstown Lakes District Council* [2019] NZEnvC 205 at [128].

¹¹⁹ *Bayswater Marina Holdings Limited v North Shore City Council* [2009] ELHNZ 65 at [121] cited in *Western Bay of Plenty District Council v Bay of Plenty Regional Council* [2017] NZEnvC 147 at [98].

¹²⁰ *Te Tangi a te Manu* at 4.10 and 4.27 (pg. 73 and 81); *Western Bay of Plenty District Council v Bay of Plenty Regional Council* [2017] NZEnvC 147 at [144].

Table 23 Summary of assessments against MEP landscape, and natural character values

	Outstanding Natural Features and Landscape (ONFL)	Marlborough Sounds High Amenity Landscape (MSHAL)	Outstanding Natural Character (ONC)	(Very) High Natural Character ((V)HNC)	Assessment Summary
Richmond Bay	No	Yes	No	No – however the adjacent land is HNC. Values for that area can be found in Area 3C mapped on Volume 3, Appendix 2, page 32 with key characteristics identified on page AP2-33.	• Landscape effects are considered appropriate because the large bay can accommodate carefully located additional aquaculture and the proposal broadly adopts areas previously supported by the MDC landscape expert. • Natural character effects are considered appropriate because the farms avoid the bay head and residences, although some structures would adjoin slopes mapped as HNC. • Visual effects are considered appropriate overall, although close views may be significant and users of the small beach southeast of The Reef would experience some loss of undeveloped amenity.
Okuri Bay	No. Waters outside the head of Okuri Bay are part of the eastern Tasman ONL which can be found in Volume 3, Appendix 1, pages 31-34.	Yes	No	Yes – site is within Area A1 mapped on Volume 3, Appendix 2, Page 2 with key characteristics listed on page AP2-3. The adjoining land is not mapped as having high or very high natural character.	• Landscape effects are assessed as very low to low at the wider scale and low to low–moderate at the bay scale, reflecting localised perceptual change without altering the underlying landscape values. • Natural character effects are assessed as low to low–moderate, principally due to a localised experiential reduction in naturalness that would not compromise the broader VHNC values. • Visual effects are assessed as low–moderate at most, with most viewing audiences experiencing very low to low effects and the farm not becoming visually dominant.
Hāpuku	Yes. Site is within	Yes	No	No	• Landscape effects are assessed as low overall and very low in

Rock	the Cook Strait nested landscape as mapped in Volume 3, Appendix 1, page 66. Values are listed in Appendix 1, pages 22-26.				relation to the ONL values, as the change would be localised within an established working coastal setting. - Natural character effects are assessed as low, because the proposal would cause only localised modification without materially compromising the setting's natural character values. - Visual effects are assessed as low at most, with most audiences experiencing very low effects and the structures remaining subordinate to the coastal slopes and open-water setting.
Guards Bay	Yes. The area is mapped within the Forsyth nested landscape in Volume 3, Appendix 1, page 66 and landscape values are listed in Appendix 1, pages 20-22.	Yes	No	No	- Landscape character effects are assessed as very low, as the farm would remain subordinate to the large scale, modified working landscape and would not adversely affect the ONL values. - Natural character effects are assessed as low, reflecting localised modification within an already modified rural and marine farming setting. - Visual effects are assessed as low, as the low profile structures would be visually recessive and barely perceptible from most land based and distant viewpoints.
Papatua	Yes. The site is within the Te Anamāhanga / Port Gore nested landscape. Mapped in Volume 3, Appendix 1, page 66 and landscape values are listed in Appendix 1, pages 18-20.	Yes	In small part, yes. The corner of the farm is within ONC 9 the Capes which is mapped in Volume 3, Appendix 2, page 83 and the key characteristics	Yes. The site is within an area of HNC. Part of the adjoining land is not mapped as high natural character. Part of the adjoining land is mapped as very high natural character. The key characteristics of the marine area are mapped in Volume 3, Appendix 2, page 4 as being within sub-area B4. They key characteristics are identified in Appendix 2-6. The adjoining terrestrial area is identified as area	- Landscape character effects are assessed as moderate at the site scale and low at the scale of Te Anamāhanga/Port Gore as the development is viewed within the context of a large-scale enclosing, modified working rural landscape, within a broader more natural context. - Natural character effects are assessed as moderate at the site scale and low at the scale Te Anamāhanga/Port Gore as the farm will be visually contained by the surrounding landform and ecological effects are no more than minor. - Visual effects are assessed as low from the land and moderate-low from the water as land-based viewing opportunities are minimal and the low profile structures would be visually recessive and set against a more dominant landform.

			are identified in Appendix 2, page 84.	2B on map Appendix 2, page 29. The characteristics of which can be found in Appendix 2, pages 30-31.	
Onapua Bay	No	Yes	No	Yes. The adjoining land is not mapped as high natural character. The marine area is mapped as part of Area E2 in Volume 3, Appendix 2, page 14. The key characteristics can be found in Appendix 2, pages 15-16.	• Landscape effects are very low at the wider scale and low to low–moderate locally, with some bay- scale effects more than minor but no compromise of the landscape’s key characteristics or values. • Natural character effects are assessed as low to low–moderate and no more than minor, as the principal change would be a localised experiential reduction in naturalness within the HNC area. • Visual effects would generally be moderate or less and no more than minor, but would be more than minor for a small number of western shore dwellings and marine users within the bay.

Both the *Man O' War* line of authority and the MEP focus on the key characteristics¹²¹ in the context of natural character and the values¹²² in the context of landscape. The fact that a marine farm might be visible within the ONC or ONL is only relevant where it affects those identified values.

The marine farm will only be visible for a small component of the landscape or natural character area.

Many of the values and characteristics relate to physical elements that will be unaltered as a result of the proposed marine farm. While from certain angles those physical elements will be seen in the context of the farm, there will be no direct effect on the perceptual values and experiential characteristics.

Specifically in respect of natural character the governing policy is Policy 7.2.1. As noted above that policy directs us to '*the characteristics that contribute to the areas of the coastal environment with outstanding natural character*'. The factors in Appendix 4 also need to be had regard to.

Policy 7.2.3 is also relevant. Location, scale, design and operation of the activity is relevant. The mussel farm moves with the sea and tide, it is not static. There are '*several variables to consider when assessing the degree of natural visual impact*' of the farm including '*weather conditions, elevation (relative height to the view point above the site), distance, background, filtering (whether part of the marine farm is hidden from view), angular view (whether seen end on, obliquely or side on), colour of the buoys, size and scale, sea surface attributes (whether calm or choppy)*'.¹²³

The landscape chapter of the Marlborough Environment Plan falls into a similar pattern. The focus of Policy 8.2.1 is of values. The commentary and the definition in Volume 2, Chapter 25 make it clear the values of those listed in Appendix 1.

Policy 8.2.4 contains similar provisions in respect of location, scale, design and operation of the activity. Policy 8.2.8 lists a series of factors that the policy seeks to avoid. Marine farms in general do not seem to offend those provisions.

Policy 14.21.5(g) provides that Aquaculture Management Areas (AMAs) are *generally* located outside of areas having been identified as having high, very high or outstanding levels of natural character and outside areas identified as outstanding natural features and outstanding landscapes '*where necessary to avoid adverse effects on the characteristics and values of those areas*' (emphasis added).

That passage is best analysed starting at the last point:

- (a) The values and characteristics that are protected by the plan are central to the analysis;
- (b) The words '*where necessary*' are strong. Where their need is merely equivocal then there is no need to avoid the effects; and
- (c) The words '*generally*' suggests that there will be exceptions.

¹²¹ Volume 2, Chapter 25 – Definitions, page 5 definition of “coastal natural character schedule of characteristics” [Operative in part - Rules - Chapter 25 - Definitions \(Updated 10 September 2026\)](#).

¹²² Volume 2, Chapter 25 – Definitions, page 15 definition of “landscape schedule of values” [Operative in part - Rules - Chapter 25 - Definitions \(Updated 10 September 2026\)](#).

¹²³ *Stormhaven Limited v Waikato Regional Council* [2026] NZEnvC 170 at [166].

Strictly speaking Policy 14.21.5(g) does not apply. This is not a case where an AMA is sought¹²⁴ nonetheless.

The aquaculture activities proposed can be seen as cultured nature for the following reasons¹²⁵:

- The proposals constitute sustainable production of indigenous species.
- Unlike other human modifications in the Marlborough Sounds all traces of a shellfish farm disappear within 3 to 10 years¹²⁶. Even if all primary production ceased, the impacts of flora and fauna from weeds, soil compaction, tracks and exotic grasses would remain for decades and probably hundreds of years. In that context, it cannot be said the aquaculture is any less natural than dairy farming, forestry or viticulture.
- The Marlborough Sounds are recognised as highly productive for growing farmed shellfish, providing highly nutritious source of protein and supporting local employment and communities. The industry is part of the culture of the Sounds.
- The informed observer would know that Marlborough's seafood is a culinary delicacy and would be aware of both the indigenous and European pioneering history of the Sounds.

Furthermore, shellfish and seaweed farming can have positive effects on the biotic components of natural character.

It is conceded for the purpose of this application that adverse effects on landscape and natural character for some of the sites may not be avoided, even when those sites are identified as having outstanding natural landscape or outstanding natural character. It is for this reason that the application has been made to Fast-Track.

Site by site assessments of effects on landscape and natural character are provided in **Parts 7 to 12**. Those reports have all been peer reviewed and a Joint Memorandum is provided as **Schedule D25**. Those reports include assessments against the scheduled values for the landscapes and natural character areas in the MEP.

6.12 Amenity Effects

Amenity values are intertwined with landscape values and landscape quality. 'Amenity values' are defined as *'those natural or physical qualities and characteristics of an area that contribute to people's appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes'*¹²⁷.

Section 7 of the RMA requires those with functions and powers under the RMA to have particular regard to the 'maintenance and enhancement of amenity values.' The question that must be asked is, what elements make up the amenity character of the area and are there threats to those various elements from the activities proposed?

Amenity is multifaceted, where two themes are recognised¹²⁸:

¹²⁴ That being a planning function rather than a consenting function.

¹²⁵ As are flat oysters and the seaweed species proposed.

¹²⁶ Davidson, R.J.; Richards L.A. 2014. [Monitoring of a relocated a mussel farm in Otanerau Bay](#), East Bay, Marlborough Sounds: 2002-2014. Prepared by Davidson Environmental Limited for Marlborough District Council. Survey and Monitoring Report No. 788.

¹²⁷ Resource Management Act 1991, s 2(1).

¹²⁸ Ministry for the Environment, *Managing Rural Amenity Conflicts* (MfE, 2000) at 15, as cited in [Pahiatua Wind Farm Social Impact Assessment](#) (Appendix Z, Dialogue Consultants Ltd 2025).

- a) *'Amenity Attributes - these are tangible and measurable matters such as noise, odour, density of development, shading etc that define the amenity character of an area and:*
- b) *Perceptions and expectations that people hold about amenity. These derive from people's culture, values and desires, and from people's differing tolerances in relation to amenity attributes and to changes to those attributes.'*

Amenity attributes include the dynamic relationship between land and seascapes of the coastal environment and the visual and scenic qualities to be found in such areas.

Amenity attributes encompass the existing environment, which has built elements such as some housing, access roads, power infrastructure, agricultural land use and commercial forestry and also encompass the built environment on the water, with marine farm structures and the intermittent presence of vessels carrying out various management activities on the farms.

6.12.1 Visual Amenity

For each of the farms the impact on visual amenity will depend on where the farm is viewed from. Viewed from any position farms will be seen as one of a number of manmade elements. Whether the effect is positive or negative will depend on the attitude of the viewer.

When viewed from above the surface of the water, a marine farm looks like a series of black conventional mussel floats, joined together by barely visible ropes. Generally, the subsurface structures cannot be seen. The mussel floats are partially submerged, so roughly only their upper half is shown. At the end of each row of mussel buoys is an orange buoy, which is necessary for navigational safety. Keen observers will see radar reflectors and reflective tape on some of the outer buoys. At the corner edges of the farm, marine farming lighting will be installed. At night, lights with a one nautical mile range will flash five times every 20 seconds with a soft yellow light and stand one metre above sea level. Again, this is required for navigational safety purposes.

The longline structures move with the tide and current. Other factors affect their visibility such as weather conditions.

There have been several key Environment Court cases involving marine farms and visual effects. The consensus seems to be that marine farms cease to be an important part of the view at about 250-300 metres away. See for example, *Stormhaven Limited v Waikato Regional Council* [2026] NZEnvC 170. Apart from visual effects reducing with distance, the sites proposed in this application are not known to be 'destinations' in their own right. That is, their viewing audience will most likely be people transiting by in a vessel.

When viewed underwater, the marine farm would only be visible when the viewer is immediately adjacent to the lines. The ability to see the farm would be attenuated by sediment suspended in the water column, which varies with conditions, and is unrelated to the mussel farm itself. Mussels are of course filter feeders.

Site by site assessments of effects on visual amenity are provided in the landscape and natural character assessments in **Parts 7 to 12**.

6.12.2 Noise

The predominant source of noise from a marine farm occurs from vessels servicing the area. Noise is generated

from the boat engines (revving and speed of travel means this source varies in severity), maritime radio, conversation between employees on board the vessels, and machinery and equipment used to harvest the stock, such as winches and hydraulics.

Vessels servicing production farms generally visit to undertake line preparation, seeding, crop inspections and harvesting. Timings vary over the production cycle, but a generalised average is 9 hours per 110 metre longline per year. Vessels servicing nursery farms might concentrate activity during the spat seeding season of August to November. Outside that window activity will be less frequent and comprise crop inspections and harvest before reseeding onto grow out sites throughout the Sounds. Vessels are unlikely to be present outside the usual operating hours of 7.00am to 5.00pm Monday to Friday.

Concern about noise from vessels on the site would most likely come from landowners in the relevant bay. There are limited numbers of buildings in the vicinity of each farm and very few permanent residents. Other vessels are likely to use the application areas. Land adjacent to each site will host intermittent farming and forestry noise.

The MFA programme includes standards to manage noise including a Noise Code of Practice to *'to avoid, remedy or mitigate noise from marine farming activities in the Marlborough Sounds, Golden Bay and Tasman Bay on other users and residents'*.

There are generally few noise complaints in Marlborough about aquaculture activities. It would appear that the Code of Conduct is sufficient to address this issue in most circumstances.

In any respect, any noise from the activity will be within the noise limits for permitted activities set out in the MEP.

6.12.3 Pollution and Emissions

The MFA programme also includes standards to reduce pollution and emissions from on water activities. It includes requirements to:

- Mitigate against discharge of contaminants such as oil, diesel, petrol or effluent into the marine environment; and
- Adhere to good management practices for the storage and use of chemicals and fuels on board vessels; and
- Set out regional oil spill contingency plans and farmers' responsibilities under that plan; and
- Use biodegradable cleaning products to clean vessels and biodegradable oils in vessel engines; and
- Use approved facilities when antifouling vessels.

6.12.4 Amenity Effects Summary

While there may be some site by site amenity effects that neighbouring residences consider **moderate**, the applicants consider that overall, with best management practices in place, they will be in keeping with the working environment of the bays in which the activities are undertaken and for all other coastal users **no more than minor**.

6.13 Security of Structures and Debris

Each application operates under a comprehensive farm maintenance schedule which ensures their farms are

secure, and in good structural condition, to minimise the possibility of loss of integrity or security of the structures. Farm operations include regular removal of biofouling and practices to minimise loss of marine farming debris from the farm.

The MFA ECP sets out operating procedures to ensure security of structures and management of debris, with environmental mentors to encourage continuous improvement. None of the applicants have recorded instances where structures have become unsecured during their many years of operation.

Furthermore, the applicants propose a condition that *'all farm structures and all parts thereof must be designed, constructed, installed and maintained in a manner which ensures that they are restrained, secure and in working order at all times'*.¹²⁹

The Marlborough aquaculture industry agreed with MDC and community groups on MEP policy 14.23.1 addressing marine farm debris. Operators are required to:

- 'Take the best practicable options to avoid the loss of marine farming related non-biodegradable debris and litter, and any associated adverse effects, from their marine farming operation;
- Regularly monitor and collect marine farming related non-biodegradable debris and litter from the adjacent shoreline and surrounding coastal marine area; and
- Dispose of marine farming related non-biodegradable debris and litter at an appropriate facility'.

The applicants have proposed a consent condition (**Schedule F**) to implement this policy, *'the consent holder must take whatever steps are reasonably necessary to avoid any non-biodegradable debris being lost in or from the farm, and take whatever steps are reasonably necessary to retrieve any non-biodegradable debris lost in or from the permit area'*.

Furthermore, MFA runs a float collection and recycling programme and a comprehensive industry beach cleaning programme¹³⁰, whereby:

- 'Participating members are assigned beach cleaning areas with associated beach cleaning targets which are proportionate to the number of backbone metres that a member works across Te Taihu; and
- Beach cleaning areas have associated frequency targets, based on the amount of debris that washes up in an area (depending on position, tides, prevailing wind etc); and
- Annual review of the programme is undertaken to ensure continuous improvement.

The applicants have proposed a consent condition (**Schedule F**) to ensure beach cleaning at each application site, *'the consent holder must participate in the Marine Farming Association Beach Cleaning Programme or carry out a similar programme of beach cleaning so as to ensure the shoreline within XX Bay is cleaned every six months (excluding any activity that would contravene the Wildlife Act in respect of a king shag colony or roosting site)'*.

The proposed conditions are set out in full in **Schedule F**.

Taken overall, with the best management practices in place, the farms will be operated with structural integrity, and effects from debris will be **no more than minor**.

¹²⁹ C13 (Papatua), C12 (Guards Bay), C11 (Okuri Bay), C12 (Hāpuku Rock), C11 (Kapaua) and C11 (Onapua Bay).

¹³⁰ Marine Farming Association, [Beach Cleaning Programme](#) (Marine Farming Association, last accessed 16 July 2026).

6.14 Navigation and Public Access Effects

6.14.1 Introduction

The ability to navigation safely within and around marine farms and between farms and the shore is both a navigation and public access consideration. Navigation considerations include the placement of farms and marking and lighting.

The Maritime New Zealand (MNZ) Marine Farm Guidelines¹³¹ covers positioning, type of marks and lights, ongoing maintenance of aids to navigation and other matters relevant to navigational safety. The key factors to be considered when siting farms is to keep them clear of headlands, recognised anchorages, navigational routes and vessel traffic and narrow channels. MNZ commented on the referral application that there were *'no substantive concerns with regards navigation safety issues surrounding the majority of the proposals as the locations tend to be in smaller embayments off any main channels utilised by commercial vessels. The one exception is the Hāpuku Rock site which does experience more commercial vessel activity in proximity to the site, however, this site is still out of the way of the main channel'*¹³².

The MDC Harbourmaster made an initial comment on the application¹³³ that while he could not provide *'much comment'* prior to seeing the application he encouraged the applicants to consider lighting and marking. He also noted that he *'would also advocate for following the ribbon principle established with other marine farms in Marlborough'*.

Location considerations, lighting and marking and a long history of safe navigation in the Marlborough Sounds are outlined in the following sections

6.14.2 Marine Farm Locations

The MEP AMA policies provide guidance with regard to the location of existing marine farms and navigation.

Policy 14.21.5 provides that AMAs *'are generally located (a) In the coastal ribbon between 100 and 300 metres from mean low water (other than those AMAs that provide for intertidal marine farms or those marine farms set out in (ai)) to protect natural, recreational and amenity values of the coastal marine area of the Marlborough Sounds...'*. Sub-paragraph (ai) refers to a series of areas in the Sounds, the only one that is relevant to this application is reference to *'Admiralty Bay CMU'*. That area encompasses the Hāpuku Rock site.

Policy 14.21.5(a) does not refer to navigational safety. It refers to recreational and amenity values. In terms of navigational safety, Policy 14.21.5(g) provides that *'...(AMAs) are generally located: ... (g) To achieve safe and efficient navigation corridors'*.

In terms of providing navigational safety, in the context of most¹³⁴ of the 580 existing marine farms in the Sounds, the MEP Variation 1 (Marine Farming) Hearings Panel found that *'a consistent pattern is an effective risk control for maintaining navigation safety'* for marine farms.¹³⁵

¹³¹ Maritime New Zealand., [Maritime farm guidelines: Aids to navigation](#) (December 2018)

¹³² Maritime New Zealand (2026). [Comments on Marlborough Aquaculture Projects Referral Application](#). (page 34 of the PDF)

¹³³ Refer **Schedule C2**

¹³⁴ The MEP does not regulate finfish farming. There were also a handful of marine farms not provided with AMAs, nearly entirely because of perceived landscape and/or natural character effects.

¹³⁵ Marlborough District Council (2023). [MEP Variation 1 Hearings Panel Report](#) (at [143]).

The applicants consider that the proposed farm locations do achieve safe and generally efficient navigation corridors.

There may be some navigational amenity effect, for those navigating by boat past the new farms if their attitude is to dislike the look of marine farms. On the other hand, they may enhance recreational amenity from the perspective of people who choose to tie up and fish from marine farms, or use them for shelter in inclement weather, for example.

Table 24 provides an assessment of farm location for each specific site:

Site	Location considerations for navigation
Hāpuku Rock	- The proposed new farm is to be situated across two blocks on either side of the existing marine farm. - The new blocks would be at least 100 metres from mean low water and generally follow a coastal ribbon approach. - As noted above, MNZ commented on Hāpuku Rock experiencing more commercial vessel activity. The main channel are vessels transiting from French Pass to north of Clay Point, with a secondary route heading into Admiralty Bay itself. In any case, there have been no known incidents from the existing marine
Onapua Bay	- This new farm does generally follow a coastal ribbon approach. Blocks A and B do sit less than 100 metres from shore, as do many other farms in the Sounds, because the 'coastal ribbon' used to be 50m to 200m from mean low water mark, under the Marlborough Sounds Resource Management Plan¹³⁶. - There are still many examples of marine farms in the Sounds that are remaining within the 50m to 200m ribbon.¹³⁷ Many farms in neighbouring Oyster Bay and Hitaua Bay in Kura Te Au / Tory Channel are within 50m of shore. - Detailed navigation assessment was provided through the MEP process (as Apex Marine Farm Ltd was originally seeking an AMA for the farm). The late Captain David Walker summarised the situation as: <i>'While I acknowledge that the farms proposed by Apex may cause an inconvenience for those who navigate in Onapua Bay, the impact on navigational safety will be very minor, if not non-existent. There will be still something in the order of 300 metres of sea room between the farms and the South West shore, with 200 metres at the narrowest point, when considering normal recreational vessels.'</i>¹³⁸ Other than recreational traffic, the majority of vessels in Onapua Bay are commercial barges harvesting pinus radiata. - MNZ has not raised any concerns in their written comments on the referral application.
Okuri Bay	- The new blocks would be at least 100 metres from mean low water and generally follow a coastal ribbon approach. - There are no known navigational incidents from the existing marine farm in this bay. The farms would be laid out as two blocks.

¹³⁶ Refer Figure 35.1:

https://www.marlborough.govt.nz/repository/libraries/id:2ifzri1o01cxbymxkvwz/hierarchy/documents/your-council/environmental-policy-and-plans/msrmp-volume-2-list/Chapter_35_Coastal_Marine_Zone.pdf

¹³⁷ Most of the 45 marine farms in Port Underwood, the farms in Admiralty Bay (approx. 42 farms), and farms in Port Ligar and Forsyth Bay (approx. 70 farms). There are other examples throughout the Sounds.

¹³⁸ <https://eservices.marlborough.govt.nz/download/files/UnSJ7lnjHOMQ2rLIH2PmFAZGhH8yuhbEUrqbpwE1uYUUn> (at [30]).

	• MNZ has not raised any concerns in their written comments on the referral application.
Kapaua/Richmond Bay	• The new blocks would be at least 100 metres from mean low water and generally follow a coastal ribbon approach. • There are no known navigational incidents from the existing marine farms in this bay. • MNZ has not raised any concerns in their written comments on the referral application.
Guards Bay	• The new farm would be at least 100 metres from mean low water but would not align with Policy 14.21.5(a). However, spat nursery farms need to be located in cooler oceanic waters that are not found in the inner Sounds. It is proposed to be located adjacent to an existing marine farm. There are no known navigational incidents from that existing farm. • MNZ has not raised any concerns in their written comments on the referral application.
Papatua	• The new farm would be at least 100 metres from mean low water but would not align with Policy 14.21.5(a). However, spat nursery farms need to be located in cooler oceanic waters that are not found in the inner Sounds. It is proposed to be located adjacent to an existing marine farm. There are no known navigational incidents from that existing farm. • MNZ has not raised any concerns in their written comments on the referral application.

Table 24 Site location considerations for navigation safety

6.14.3 Lighting and Marking

Under the Maritime Transport Act 1994 the Harbourmaster will direct how the farms are to be lit and marked if consent is granted.¹³⁹ The most common form of marking and lighting of mussel farms is:

- The end of each longline has an orange buoy, as does the middle of each of the seawardmost and landwardmost lines on each block of lines.
- Each of the corners of the farm has a light with a radar reflector and reflective tape. Traditionally marine farms have been lit with a flash sequence Fl (5) Y 20s.¹⁴⁰ That flash sequence is now reserved for Ocean Data Acquisition Systems (ODAS) buoys. At some stage the common flash sequence of Marlborough marine farming lighting may need to change. The Harbourmaster has flexibility as to the actual light sequence on the Special Mark. The Harbourmaster may choose to use cardinal marks and can specify the nominal range of the light to be installed. It may be that Papatua and Guards Bay should be lit with cardinal marks and the remainder with normal marine farming lighting.
- Each end of the landwardmost and seawardmost lines include a buoy marked with the consent holder's name as well as the marine farm number issued by the Council.

6.14.4 Navigation History

Marine farms have operated in the Sounds since the 1970s. Despite that length of time, there are very few recorded incidents with them. This was raised in a recent Environment Court case.¹⁴¹ The Court held:

- *'[93] On matters as to navigational safety, we prefer the evidence of Harbourmaster Oliver and Mr Grogan. That is not to dismiss Captain Smith's significant experience as a marine or his concerns. We acknowledge that there is at least the potential for an inexperienced, distracted, skipper to err so as to collide with a marine farm at a speed that could lead to injury. However, we accept Mr Groagn's explanation of why such a potential consequence is most unlikely. We accept Harbourmaster Oliver's evidence that there is no record of prior such incidents causing injury or harm. Overarching that, we give*

¹³⁹ Pursuant to sections 200, 444(2) and 444(4) of that Act.

¹⁴⁰ Maritime New Zealand Marine farm guidelines: Aids to navigation, December 2018.

<https://www.maritimenz.govt.nz/media/ikmklfsj/marine-farm-guidelines-navigational-safety.pdf>

¹⁴¹ [Clova Bay Residents Association Incorporated v Marlborough District Council \[2026\] NZEnvC 217](#)

particular weight to Harbourmaster Oliver's opinions on these matters, given his statutory responsibilities'.

The former Harbourmaster Luke Grogan stated in evidence in chief:

- *'[88] However, when considered as a hazard to navigators, mussel farms do not present anything like the same level of risk to a vessel as a hard structure. While collisions with hard structures can be fatal, mussel farms, composed primarily of ropes and floats, yield on impact. The worst-case outcomes include temporary entanglement, potential damage to a vessel's propellor or shaft, and superficial scuffs on the hull.*
- *[89] Far more serious outcomes arise from collisions with hard structures as opposed to mussel farms. I can recall fatal accidents that have occurred in Marlborough waters as a result of vessels colliding with hard structures, but no serious outcomes as a result of collisions with marine farms.*
- *[90] One well-known collision incident with a marine farm occurred 5 or so years ago in Tory Channel. On that occasion, the skipper of a commercial fishing vessel fell asleep at the helm and ploughed directly into a mussel farm. The mussel farm absorbed the impact and prevented the vessel from grounding.*
- *Nobody on the fishing vessel was injured and subsequent repairs to the fishing vessel and marine farm were minor compared to what might have occurred if the vessel had of (sic) grounded, collided with another vessel or collided with a nearby salmon farm.'*

None of the six sites sits on a headland, occupies an anchorage of refuge, a recognised navigation corridor, a public boat ramp approach or a public jetty approach. In addition, the applicants note that all of the new sites are located in bays with existing marine farms, except for Onapua Bay, but in terms of Onapua Bay that is in a side Bay off Tory Channel. There are many existing marine farms in other side bays off Tory Channel, and salmon farms in the channel.

With regard to navigation and public access, the evidence of Rob Greenaway to the MEP hearings ¹⁴² (**Schedule I2**) considered well sited farms to be legible and straightforward to navigate for a competent recreational skipper, and that marine farms do not materially impede 'point to point' navigation.

6.14.4 Navigation and Public Access

As the farms are appropriately sited and will be marked and lit in accordance with directions from the Harbourmaster the navigation and public access effects for Papatua, Guards Bay, Hāpuku Rock, Okuri Bay and Richmond Bay are considered **no more than minor**.

Navigation and public access effects for Onapua Bay are considered in more detail in **Part 12**.

6.15 Recreation and Tourism (including Fishing) Effects

6.15.1 Recreation and Tourism Context

The applicants have not obtained an independent recreation and tourism assessment, instead drawing on a comprehensive tourism and recreation report undertaken by David Bamford¹⁴³ to support the King Salmon EPA

¹⁴² Greenaway, R., Statement of Evidence on Recreation and Tourism on behalf of the Marine Farming Association Incorporated, Aquaculture New Zealand and Beleve et al, Marlborough Environment Plan Variations 1 and 1A (October 2021) (**Schedule I2**).

¹⁴³ Bamford, D.A.C. and Young, S., Tourism and Recreation Report prepared for New Zealand King Salmon (Tourism Resource Consultants, July 2011), lodged in the New Zealand King Salmon board of inquiry (**Schedule I1**).

applications in 2011 (**Schedule I1**) as well as the 2021 evidence of Rob Greenaway to the MEP (**Schedule I2**) given on behalf of the industry during the hearings to the MEP.

Destination Marlborough notes that Marlborough has built its wealth '*firmly around a healthy environment*' and that '*our climate, wines, seafood, communities, and landscapes attract locals and internationals alike.*' Visitor spend in Marlborough was \$411 million in the year ended March 2020, when tourism contributed approximately 6.3% of regional GDP and supported approximately 3,234 jobs. Seafood, marine farming, boating and fishing are all key to the Te Hoiere Pelorus and Havelock experience while boat based experiences, fishing, sailing and marina access are more concentrated in Tōtaranui Queen Charlotte Sound. In his evidence for MFA and AQNZ Greenaway comments that mussel farming and recreation and tourism coexist in the Pelorus Sound and the activity is '*generally compatible with marine recreation and tourism in this setting*'. The visitor economy and the aquaculture economy have grown alongside each other in the same waters for more than fifty years.

There are tourism opportunities in the general vicinity of all farms:

Site	Tourism Opportunities
Richmond Bay	Adjacent tourism operation is Ponui Island – accommodation / farm stay – distance 1.0km ¹⁴⁴
Okuri Bay	Tourism – nothing known – adjacent to privately owned forestry and farmland
Hāpuku Rock	Nothing known – adjacent to privately owned farmland
Guards Bay	Tītīrangi Farm Park which is farm stay operation - distance of 2.5km ¹⁴⁵
Papatua	Dive Lermontov – 4km 6km from private airstrip – albeit with planes flying overhead ¹⁴⁶
Onapua Bay	Two baches available for rent at a distance of approximately 500m ¹⁴⁷ . Interislander and Bluebridge at an approximate distance of 1km

Table 25 Tourism opportunities relating to the project area

The effects on each of these operations are likely to be similar to the effects assessed under the heading of landscape and of amenity.

Greenaway provided a range of figures depicting recreation and tourism activity across the Marlborough Sounds. The 2019 AIS 'pleasure craft' data (Figure 10 of Greenaway) showed little activity at Papatua, Guards Bay, Hāpuku Rock or Okuri Bay, but substantial activity at Richmond Bay and Onapua Bay.

¹⁴⁴ <https://www.vladi-private-islands.de/>

¹⁴⁵ <https://www.Titirangifarm.co.nz/>

¹⁴⁶ <https://www.godivepacific.nz/lermontov-tours> and <https://www.pelorusair.com/>

¹⁴⁷ <https://www.bookabach.co.nz/holiday-accommodation/p9630397> and <https://www.airbnb.co.nz/rooms/27077057>

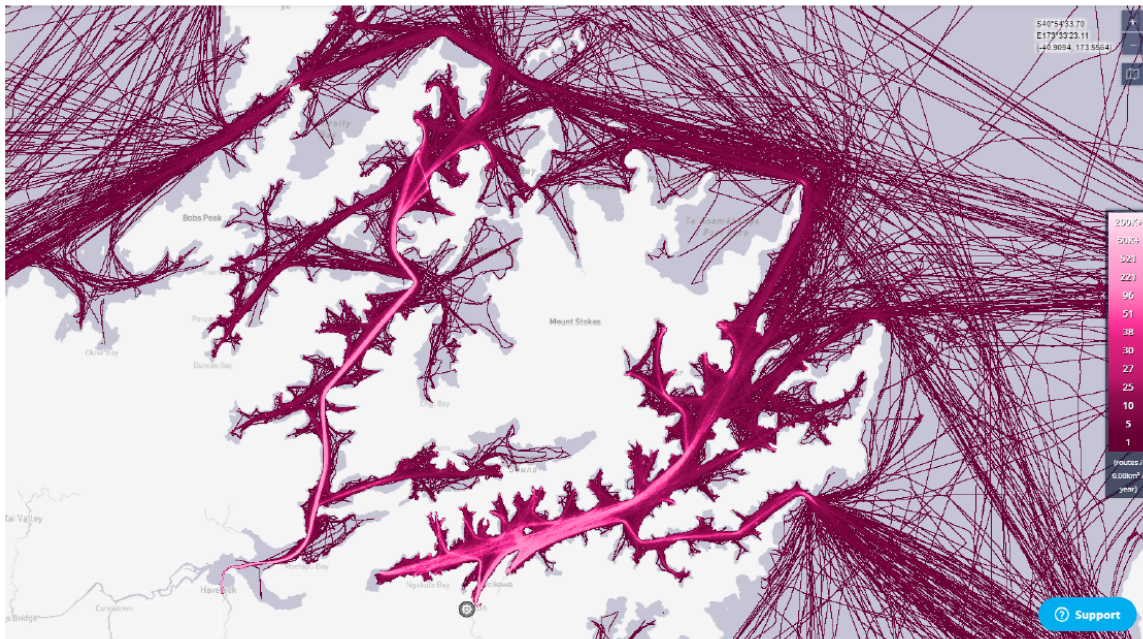


Figure 18 2019 AIS pleasure craft data from Figure 10 of Greenaway (Schedule I2)

Figure 11 of Greenaway (**Schedule I2**) provides a map of cruising club moorings showing one at Pohuenui in Richmond Bay but none at the other sites.

In Onapua Bay there are consents for cruising club moorings toward the head of Onapua Bay in Missionary Bay and Tawa Bay.

The MPI recreational aerial fishing survey shows that, of the application sites, recreational fishing activity is highest at Papatua, Richmond Bay and outer Onapua Bay and lowest at Guards Bay, Okuri Bay and Hāpuku Rock. However recreational fishing activity in the Marlborough Sounds is concentrated predominantly in Queen Charlotte Sound and the Inner Pelorus including Kenepuru Sound.



Figure 19 MPI aerial fishing survey data 2015/16

Strava heat maps of land and water based recreational activity show a marked concentration in Inner Queen Charlotte Sound and no activity in the vicinity of the application sites.



Figure 20 Strava global heatmap

DOC provides online maps of a range of recreation locations with only Cape Lambert Reserve at Papatua and Katoa Point Reserve at Onapua Bay included.

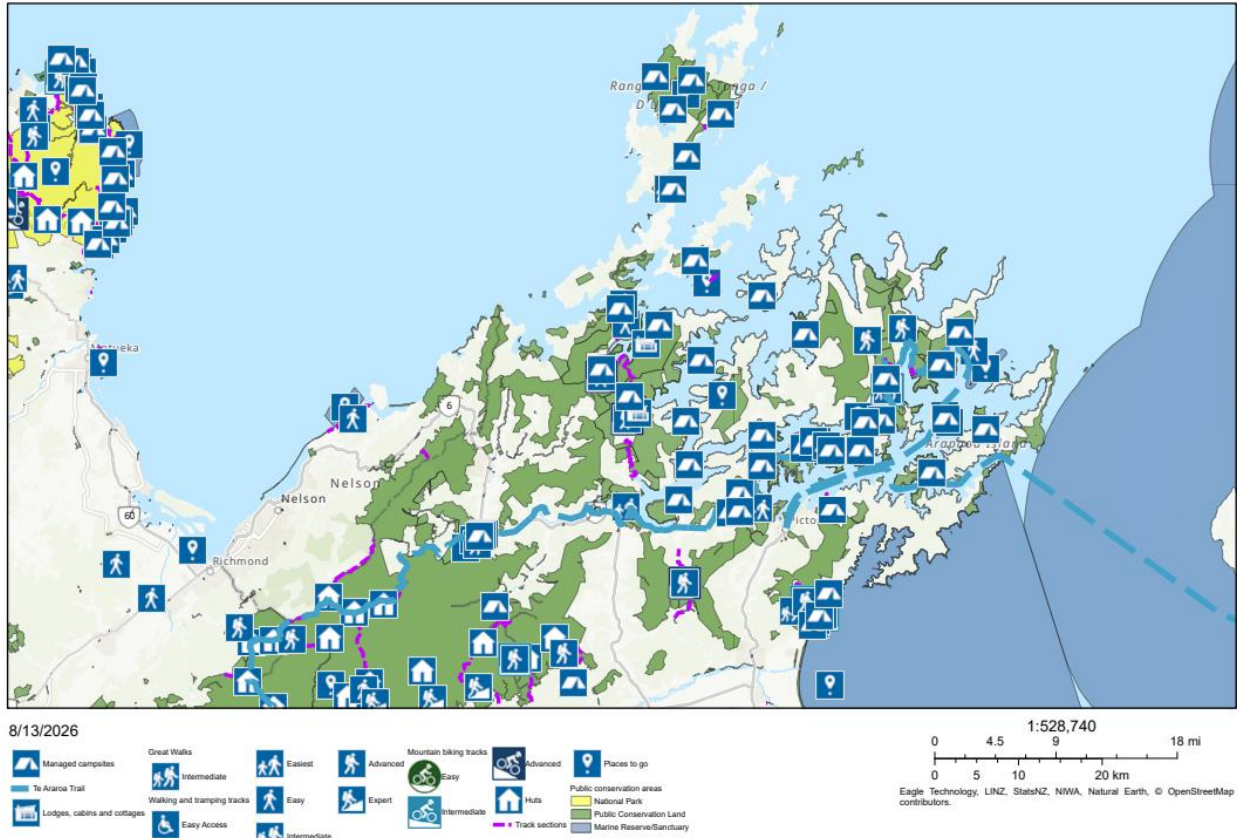


Figure 21 DOC recreation locations

Bamford classified the recreation setting of the Marlborough Sounds using the 'Recreation Opportunity Spectrum' in which all of the Inner Sounds and all waters inland of the headlands were classified as 'accessible waters', settings in which modification of the natural environment is apparent but not dominant and encounters with people are likely. All of the sites except for Papatua meet this classification. Port Gore is classified as 'remote waters', settings where interactions with others is unlikely, significant skills are required to reach those areas and modification is limited to isolated locations.

Marine farming is also a positive component of the region's visitor offering. Havelock is marketed as the 'Greenshell Mussel Capital of the World' and hosts the annual Havelock Mussel and Seafood Festival.¹⁴⁸ A substantial group of Pelorus and Kenepuru tourism operators include visits to marine farms, including fishing activities, into their packages. Greenaway noted that recreational fishing guides recommend fishing around mussel farms reflecting the attraction of farm structures to fish.¹⁴⁹

6.15.2 Recreation and Tourism Effects

The sites chosen are not in areas known (by the applicants) to contain existing uses inconsistent with aquaculture. They are located away from publicly accessible boat launching facilities, jetties, publicly accessible beaches, moorings, anchorages of refuge and recognised navigation corridors in accordance with policy 14.21.5(e) of the MEP.

FNZ undertook a 'whole of Sounds' UAE assessment¹⁵⁰ for the Marlborough farms which were directed to shift seaward into their AMAs in the MEP. For context the AMA shifts were predominantly in the Inner Sounds where recreational fishing is more concentrated. Of note FNZ considered that while set netting, longlining and rod/line drift fishing may be excluded from marine farm structures *'the popularity of mussel farms for recreational and customary fishers suggests fishers may be able to use alternative methods for fishing'* and *'fishers commonly fish by rod/line within mussel farms'*. FNZ will undertake a similar assessment of this application and make a recommendation to the Panel accordingly.

Marine farms can also provide opportunities for commercial tourism such as boat cruises and on water produce experiences¹⁵¹ however the predominately Outer Sounds locations mean this will be less likely for these applications.

None of the six sites occupies or obstructs land based public access including to and from Cape Lambert and Katoa Point Reserves. For Papatua, Guards Bay, Okuri Bay, Hāpuku Rock and Richmond Bay consent boundaries are set no less than 100 metres from shore, preserving the inshore coastal ribbon that recreational users, kayakers and swimmers use, and preserving the ability of the public to move along the shore.

Matters of navigation, public access, tourism and recreation for Onapua Bay are considered in more detail in **Part 12**.

¹⁴⁸ Destination Marlborough, *Havelock, Pelorus and Kenepuru*, <https://marlboroughnz.com/havelock-pelorus-kenepuru/>.

¹⁴⁹ **Schedule I2** at [66].

¹⁵⁰ Fisheries New Zealand., *Assessing the effects on fishing – Marlborough District Council Proposed Marlborough Environment Plan Variation 1* (29 April 2024).

¹⁵¹ *Statement of Evidence of David Alexander Campbell Bamford in Relation to Tourism and Recreational Effects for the New Zealand King Salmon Co. Limited* dated June 2012.

With regard to cumulative effects, Bamford considered that recreation and tourism activity displaced from a farmed bay in the Sounds is readily substitutable, because the Sounds contain a very large number of functionally equivalent bays offering the same activity in the same setting, and because recreational users in the Sounds are generally motivated by the experience as a whole rather than by a specific location. For those sites that overlook what will become a marine farm there will be a loss of amenity. However, there is no right to a view, and the benefits of the proposed farm exceed any losses suffered by tourism operations in the general vicinity of farms. For mapped archaeological sites that sit above high tide in the vicinity of the proposals there is no plausible mechanism by which those sites will be affected.

Overall, the recreation and tourism (including fishing) effects will be **no more than minor**.

6.16 Cultural Effects

The applicants have engaged in a comprehensive programme of consultation with tangata whenua, not just to understand potential effects on cultural values and to get iwi's perspective on the proposals, but also to inform the benefits offered to iwi as part of this application.

As well as direct consultation undertaken by the applicants, Jen Bennett of Thirdspace Aotearoa has facilitated engagement with Te Taihū iwi both during the process for making the referral application and in preparation of the substantive application.

The resulting Phase 1 Iwi Engagement Outcomes Report provides a record of engagement during the development of the referral application and is provided in **Schedule B1**. The Phase 2 Record of Engagement and Summary of Matters Raised Through Te Taihū Pou Taiao Forums (Key Themes Report) is provided in **Schedule B2**.

Engagement during the second phase (developing the substantive application) was undertaken through a series of 'pou taiao forums', the first of which was a hui held at Te Hora Marae which the applicants attended.

The hui was a valuable opportunity for the applicants to understand the range of cultural values for each iwi in respect of the Marlborough Sounds in general and in relation to each site. However, it is not for the applicants to express those values in this application. The applicants responded to a range of questions from the iwi participants both during the hui and subsequently by sending a comprehensive iwi information package comprising:

- The draft referral application main document
- **Schedule B** of the referral application which set out the strategic and operational purpose of the applications and provided a consolidated benefits analysis
- **Schedule C** of the referral application which provided a site by site high level assessment of environmental effects
- **Schedule F** of the referral application which provided assessment against the relevant provisions of the NZCPS, MEP, as well as initial assessment against available iwi management plans (noting that it is for each individual iwi to make its own assessment where relevant)
- **Schedule A** of the referral application comprising site and layout plans as well as maps showing MEP overlays for each application site
- **Schedule G** of the referral application, comprising site specific and application wide technical reports including a Technical Reports Index which summarises the relevant findings for each site and report.

- Answers to iwi questions raised prior to, during and after the hui.
- A summary of the context of the Richmond Bay site offer, and options for iwi to consider prior to the substantive application being finalised
- Information to support iwi representatives to better understand how the Marlborough Greenshell mussel industry uses different types of water space and what this means for kaitiakitanga and decision making.
- Draft consent conditions for each site.

The Phase 2 report does not comprise a cultural impact assessment, technical assessment or final iwi position. It recognises that each iwi will develop their own responses as appropriate as the application progresses. It provides a summary of the key matters raised prior to lodging this application:

Key Matters	Detail
Cumulative effects and carrying capacity	The most consistent theme was uncertainty over cumulative ecological, cultural and environmental effects of the six proposals considered together, rather than site by site, including interaction with existing aquaculture, sedimentation and historical land use pressures. Participants questioned whether current information is sufficient to understand carrying capacity and environmental limits at a project wide scale, noting that the EclA had not been provided to iwi at the time of writing.
Ecological health and environmental recovery	Concerns were raised the condition of receiving environments (sedimentation, water quality, habitat condition) and uncertainty about recovery trajectories. Discussions regularly emphasised the need for environmental assessments to adequately recognise both current environmental conditions and the wider context within which the proposals would operate.
Cultural values and customary interests	Kaitiakitanga, mahinga kai, customary fisheries and intergenerational stewardship were emphasised as intrinsically linked to ecological health, with the expectation that ecological and cultural effects be assessed together.
Monitoring, restoration and reciprocity	Participants sought meaningful, resourced cultural and ecological monitoring, adaptive management, and restoration/reciprocity opportunities.
Scale of development and staging	Concerns about the overall scale of the six site package were closely tied to carrying capacity and cumulative effects. Staged development of larger sites was raised as a way to test assumptions and adapt management before full build out, while also offering applicants economic flexibility.
Richmond Bay	Richmond Bay was the most extensively discussed site, given its location in the wider Te Hoiere environment and existing aquaculture pressure, with iwi expressing uncertainty over environmental limits and appropriateness of further development there. Participants sought to understand whether there were alternative options within the scope of the FTAA application to the Richmond Bay sites.

Table 26 Key matters raised during Phase 2 cultural engagement

As noted in the report, Richmond Bay was the site that was the subject of the majority of concerns, given its location within Te Hoiere rather than in the Outer Sounds. The applicants provided detailed responses regarding alternatives, noting in particular that, due to the requirement to remain within the scope of the Referral Decision, alternative new space is not an option.

The project EclA was shared with pou taiao as soon as it was finalised on 2 September 2026.¹⁵²

The Phase 2 report identified that:

- *'As the applications progress through the substantive phase, individual iwi may undertake further technical review, prepare Cultural Impact Assessments, cultural values assessments, governance advice, submissions, evidence or other assessment material. Individual iwi responses may expand upon, refine, supplement or differ from matters outlined within this document'.*

The proposed conditions in **Schedule F** include placeholder conditions which set out a framework for identifying and addressing potential adverse effects on cultural values or mauri. The applicants anticipate further engagement on a site by site basis with regard to these conditions.

In parallel with pou taiao engagement the applicants have entered into an agreement with Maara Moana to transfer consent for the Richmond Bay sites and provide preferential access to 17.7% of the nursery lines at Papatua. As set out in the letter from Maara Moana in **Schedule B3**, this agreement has resulted from nearly 18 months of engagement. Maara Moana acknowledges the applicants' support for iwi aspirations in the region.

With regard to effects for MACAA applications, the applicants understand there is a requirement for iwi to establish uninterrupted holding of the application areas in accordance with tikanga. While MACAA determinations are outside the scope of this process, the applicants are hoping to make this application together with iwi (on the basis that they would be a joint applicant and would receive Richmond Bay and part of Papatua) and as a consequence the presence of new aquaculture would not be a substantial interruption in their customary rights. During engagement the applicants sought any further suggestions from iwi to ensure the application does not interfere with its guarantee by MACAA.

Potential effects on customary fishing are set out in **Section 6.17** below.

In summary, the applicants acknowledge that pou taiao have remaining concerns about the applications and anticipate ongoing engagement during the substantive phase and, as appropriate, through the life of the consents.

6.17 Customary Fishing Effects

6.17.1 Introduction

The applications are supported by a range of technical assessments including regarding effects on the benthic environment, the water column, fisheries resources, biosecurity and marine wildlife. These have been shared with pou taiao. The applicants consider that collectively they demonstrate that the anticipated ecological effects will be no more than minor and appropriately managed.

In particular the whole of project EclA found that the sites were '*[s]parse, low-diversity assemblage[s] associated with typical outer-Sounds soft sediments*' and '*no evidence that the proposed consent footprints support distinctive fish habitat or important spawning habitat*'. While farm structures may cause localised displacement of some soft sediment associated fish species beneath bio deposition affected areas, these will be offset in part by the habitat enhancement effects on reef associated and pelagic species. The EclA recorded an absence of

¹⁵² **Schedule C** Consultation Record.

Threatened or At Risk (TAR) species at the sites and found that the effects on the fish assemblage will be negligible to low at all sites.

Within the draft consent conditions the applicants have proposed a range of mitigations to minimise effects on customary access, mahinga kai and taonga species. These include positioning the farms so that access along the coast and within the farms is enabled, requirements to manage debris, participate in beach cleans and avoid vessel transit within 200 metres of king shag colonies. Each farm will be required to operate in accordance with a Marine Mammal Management Plan and a Biosecurity Management Plan. Operators will also voluntarily participate in the MFA Environmental Certification Programme and A+.

As part of the FTAA substantive decision making process, FNZ will make an aquaculture decision in respect of each project to assess whether there are undue adverse effects on commercial, recreational or customary fishing. During that process they will consult with the tangata kaitiaki of Te Taihū iwi. Based on the information available, the applicants do not anticipate that undue adverse effects will be identified.

While not intending to pre-empt the findings of the aquaculture decision, the applicants have undertaken an initial assessment of any potential customary fishing effects.

6.17.2 Customary Fishing Assessment Context

This initial customary fisheries assessment is informed by the Te Taihū Treaty settlement legislation and associated Statutory Acknowledgements, which record iwi associations with the coastal marine area and require decision-makers to have regard to those interests in planning and consenting processes. It also considers the Fisheries (South Island Customary Fishing) Regulations 1999, the Fisheries (Notification for Area/Rohe Moana of Te Taihū o Te Waka a Māui) Notice 2025 (Notice No. MPI 1919) which established the customary food gathering area/rohe moana of Te Taihū iwi within the South Island fisheries waters.

The tangata whenua under this notice are:

- Ngāti Apa ki te Rā To Trust;
- Te Pātaka a Ngāti Kōata;
- Ngāti Rārua Iwi Trust;
- Ngāti Tama ki Te Waipounamu Trust;
- Te Rūnanga o Toa Rangatira Incorporated;
- Te Ātiawa o Te Waka-a- Māui Trust;
- Rangitāne o Wairau Settlement Trust; and
- Te Rūnanga o Ngāti Kuia Trust.

The applicants have engaged with each of these Te Taihū Post Settlement Governance Entities (PSGE) as set out in **Section 3.6** of this application and **Schedules B and C**.

The project areas do not include taiāpure or mātaihai reserves, however Ngāti Kuia have applied for a mātaihai in an area that includes Guards Bay.

FNZ undertook a 'whole of Sounds' UAE assessment¹⁵³ for the Marlborough farms which were directed to shift

¹⁵³ Fisheries New Zealand., [Memorandum to Christine Bowden: Assessing the effects on fishing – Marlborough District Council Proposed Marlborough Environment Plan Variation 1](#) (29 April 2026).

seaward into their AMAs in the MEP. The UAE framework focuses on location, proportion of the customary fishery potentially affected, degree of exclusion, alternative areas, cost of fishing, and cumulative effects. The FNZ assessment characterised the customary fishing methods used, and the species caught or targeted as follows:

Source of information		Methods used	Species caught or targeted
	Customary authorisations issued	N/A. However, recreational fishers commonly use rod/line on anchor and while drifting, dredge or set net and diving. Customary fishers may also use these methods.	The most common species taken: scallops (historically), kina, pāua, rock lobster, blue cod, butterflyfish, moki, mussels, flatfish, and cockles.
	Other information	The main habitats recorded in the ecological report (Bently et al., 2014) support net and rod finfish fishing and diving methods. Set netting is possible, but usually occurs in shallower bays and estuaries. Diving may occur in the general locality and particularly inshore of the AMAs.	The statements from the ecological report suggest that reef species are unlikely to be found within the AMAs as the sites are further offshore.
	Assessment	Stationary rod/line methods may be used within the AMAs. Mobile rod/line and set netting are possible. Diving with UBA may occur, but the AMAs are likely too deep for free diving, with depths ranging from 20 m - 80 m. Hand gathering is not a suitable method because the water is too deep.	The absence of hard substrates beneath the AMAs means scallops (historically), kina, pāua, rock lobster, blue cod, butterflyfish, and mussels would unlikely be caught there. The main fish species available for fishing within the AMAs are likely to be flatfish and moki.

Table 27 FNZ characterisation of customary fishing methods in the Marlborough Sounds

In general, it is considered that new farming space in similar environments will not have an undue adverse effect on customary fishing where:

- Customary fishing occurs over wide areas,
- No closure areas are directly affected, and
- The habitat under the farm does not include hard substrate or reef, and
- Fishing can be displaced into adjacent, comparable habitat.

The applicants participated in a hui with pou taiao of each Iwi in March 2026 and customary fishing, including relationship to place as well as access to fisheries was raised as a key concern. These have also been considered in the draft assessment. However no specific information has yet been provided by iwi on potential customary fishing effects. Site by site assessments have been undertaken using the best available information to date. These are set out in the application specific **Parts 7 to 12**. The following section provides context for customary fishing across all sites.

6.17.3 Customary Fishing Effects Across All Sites

The applications combined comprise a total of 196.5 hectares of mussel nursery space, 70.06 hectares of mussel (and other species) production space and 15.73 hectares of flat oyster (and mussel and seaweed) space. The sites are spread across Kura Te Au, Te Hoiere, and the Outer Sounds from Okuri Bay in the west to Te

Anamāhanga Port Gore in the east. The Tītīrangi Guards Bay site sits within a Ngāti Kuia mātaihai application, but no site sits within a formal mātaihai, taiāpure or area subject to a rāhui.

All of the sites are sited over soft substrate which is considered appropriate for longline shellfish and seaweed farming. While the farm structures will exclude access to the seabed the soft sediment habitat is not considered important habitat for fish. There is increasing evidence that shellfish and seaweed farms can provide habitat for juvenile fish which in turn could increase customary fishing opportunities adjacent to the farms. Customary fishing can continue in the water column between and around lines using small vessels, as occurs at existing mussel farms elsewhere in the Sounds.

Scallops are recognised as an important recreational and customary fishery in the Marlborough Sounds which has undergone significant decline over decades. This decline is understood to have related to both degradation of habitats (such as from sedimentation) and concentrated trawl fishing. While it is well recognised that mussel farms protect areas of the seabed from further trawling, there is now growing science that they can also contribute to the habitat restoration required to support scallop recruitment and survival.^{154 155}

There is no scientific evidence to indicate the proposed farms would have measurable impacts on the water column. It is well understood that mussel farming effects are difficult to detect in the context of the ENSO cycle and a range of environmental stressors from the sea and the land. Expansion of shellfish aquaculture has no impact on wild mussel settlement rates. The applicants consider that cumulative water column effects, and any subsequent effects on fisheries resources will be negligible.

The EclA finds that the farm structures may have positive benefits for fish, there are no TAR species present and the overall effect on wild fish will be negligible to low.

Within the draft consent conditions the applicants have proposed a range of mitigations to minimise effects on customary access, mahinga kai and taonga species. These include positioning the farms so that access along the coast and within the farms is enabled, requirements to manage debris, participate in beach cleans and avoid vessel transit within 200 metres of king shag colonies. Each farm will be required to operate in accordance with an MMMP and a BMP. Operators will also voluntarily participate in the MFA ECP and A+.

Overall, the applicants consider the effects on customary fishing will be **no more than minor**, but the applicants are open to ongoing engagement with iwi on any site specific effects.

6.18 Historic Heritage Effects

Effects on historic heritage are generally considered to be less than minor for marine farms sited away from sites of historic heritage. The applicants have consulted the New Zealand Historical Places Trust Inventory and the New Zealand Archaeological Association (NZAA) ArchSite to identify any sites of significance in the proposed locations. Where sites have been identified they are away from the farms and the effects are considered no

¹⁵⁴Alder A, Howarth L, Weiss F, Atalah J. 2025. [Is mussel farming helping to restore degraded seafloor habitats in Golden and Tasman Bays?](#) Nelson: Cawthron Institute. Cawthron Report 4172. Prepared for Envirolink and Marine Farming Association.

¹⁵⁵ Soliman et al., (2021) An evaluation of strategies for restoring a degraded New Zealand scallop fishery using stochastic dynamic simulation modelling. Journal of Environmental Management, Volume 299, 113547, ISSN 0301-4797. <https://doi.org/10.1016/j.jenvman.2021.113547>.

more than minor. Where historic sites have been identified these are described for each specific application in **Parts 7 to 12**.

Overall, the historic heritage effects are considered **no more than minor**.

6.19 Cumulative Effects

Robertson considered the cumulative ecological effects of the proposals in the overarching EclA in **Schedule D21**. The relevant context is the coastal receiving environment of the six sites across the wider Marlborough Sounds (the Project ZOI) including interactions with existing aquaculture activity and vessel traffic. Effects are expected to occur principally at site scale because of the general distribution of the sites.

Cumulative effects considerations include that:

- The combined area of the sites represents approximately 7.6% of the total existing farmed area.
- While the Hāpuku Rock application would increase marine farm structures from 2.54% to 2.87% of Admiralty Bay substantial unfarmed habitat would remain.
- All farms are to be established over soft sediment habitat. Longline shellfish farming may be ecologically generative when established over such habitat.
- Existing fish values are considered moderate, no TAR species are present, and the project is not expected to materially alter fish community structure.
- King shags forage within and around established farms in the Sounds and the proposals are appropriately sited and operated away from breeding sites.
- Marine mammal habitat is significantly more extensive than the area of the proposed sites and there is only one agreed record of a marine mammal entangled in a mussel farm and that was a spat farm in 1993, spat catching techniques have changed since that time and the proposals do not include spat catching.
- The additional area represents a modest increase in overall filter feeding capacity and while detectable phytoplankton depletion can occur locally and temporarily mussel farms are not the dominant influence on phytoplankton at a broader Marlborough Sounds scale.

Taking these considerations into account Robertson finds that the cumulative ecological effects will be negligible in magnitude and very low overall. As some spatial scales the project may contribute to a net improvement in ecological conditions.

From a planning perspective, while the MEP does not provide a discretionary activity regulatory pathway for new farms it does anticipate that new space may be appropriate and may be provided for in future AMAs through plan changes. Specifically, the s32 report¹⁵⁶ noted that:

- *'The Council do not have enough robust evidence to prove either that the marine environment has the capacity to absorb more aquaculture, or that the adverse effects require the level of farming to be reduced'.*

This application provides robust evidence that the marine environment does have the capacity to absorb aquaculture at the sites and at the scale proposed, and that the applications generally align with the MEP policies that guide new AMAs as set out in the Planning Assessment in **Schedule G**.

¹⁵⁶ Perception Planning, [*Section 32 Evaluation: Proposed Variation 1 — Marine Farming for the Proposed Marlborough Environment Plan*](#) (report for Marlborough District Council, 2020).

Part 7 Papatua

7.1 The Proposal

7.1.1 Overview

The Marine Farming Association (MFA) is applying for resource consent to undertake mussel nursery activities using conventional longline structures at a 90 hectare site at Papatua (Pig Bay), Te Anamāhanga/Port Gore. The site location, site plan and layout plans are included in **Schedule A**.

The purpose of the application is to provide MFA members with access to vital nursery water space to optimise spat survival and retention. The resulting seed would be a more resilient size and able to be introduced to existing Marlborough Sounds crop farms. This enables equitable access for the existing industry via the ballot process and 17.7% of the lines will be set aside as preferential access for Iwi industry members. The project will therefore result in significant productivity uplift for the broader industry.

7.1.2 Location

Papatua is located in Te Anamāhanga/Port Gore at the western end of Cook Strait, between Cape Jackson and Cape Lambert and west of the entrance to Queen Charlotte Sound. Port Gore is a large, relatively isolated bay (over 5,400 hectares), with limited public access due to predominantly private landholdings.

7.1.3 Site Characteristics for Shellfish Farming

The application site is at Papatua, a large southeasterly facing embayment on the western margin of Port Gore, approximately mid bay. Cape Lambert extends northwards from Papatua, separating Port Gore from Waitui Bay to the west, with Cook Strait immediately to the north.

Papatua is hydrodynamically distinct from most existing mussel farming areas in Marlborough and is strongly influenced by Cook Strait waters. NIWA monitoring for MDC identified outer Port Gore sampling stations as effectively sampling Cook Strait water, with parameters differing from Pelorus and Queen Charlotte Sounds. Council monitoring in 2015 recorded Port Gore water temperatures of 12.5–17 °C, compared with 12–21 °C in Pelorus Sound (up to 4 °C warmer in summer).

Existing mussel farm 8167 adjoins the south western corner of the application site and, along with Melville Cove sites, reports consistently above average spat retention. On the basis of this performance and available research, the applicant considers Papatua to offer highly favourable nursery conditions, with high primary productivity, cooler water, and strong currents. The site is expected to be of national significance, capable of supplying intermediate and final seed for an estimated 20–50% of Marlborough's mussel farms, materially easing national spat constraints and reinforcing Marlborough's role as a key seed producer.

The Robertson EclA in **Schedule D21** records the depth range as 25 to 45 metres.

7.1.4 Applicant

MFA serves as a key regional industry body, proudly representing mussel, oyster, and salmon producers throughout Te Taihū. With a legacy spanning over 50 years, MFA's advocacy has played an integral role in fostering the sectors growth and success in the region.

MFA has 125 ordinary members and 7 life members, who own, lease, or operate water space in Te Taihū. MFA's 125 members equate to 98% representation of the total Te Taihū industry. MFA also has 48 associate members, made up of ancillary service providers that support the aquaculture industry.

MFA has five key pillars which provide direction to its advocacy efforts, these include:

Key Pillar	Aspects
Environment	MFA operates an ECP which drives continuous improvement across a range of performance metrics. MFA also organises a Te Taihū wide beach cleaning programme which ensures that the aquaculture industry is a net remover of debris from the marine environment
Social license	MFA works with communities and local authorities to minimise the impacts of the industry and to identify ways to give back
Research and Development	MFA acts as a coordinator and co-funder for applied research that benefits the New Zealand aquaculture industry. Examples include the Seafood Innovations Limited (SIL) co-funded <i>King Shag Research Project</i> , the Sustainable Food and Fibre Futures (SFFF) co-funded <i>Mussel Restoration Project</i> , and the SFFF co-funded <i>Developing Cost-effective Nursery Feeds Project</i> . MFA is also a key contributor to the Ahumoa o Aotearoa Spat Research Collective, led by AQNZ.
Policy and regulatory	MFA has led the joint industry appeal on the MEP and contributes to the development of the industry position on national regulatory settings.
Labour and skills	MFA engages with tertiary providers and schools to promote careers in aquaculture and to ensure that training aligns with industry needs.

Table 28 MFA key pillars for advocacy work

MFA is self-funded and derives much of its income through leasing water space back to its membership. MFA owns 12 farms in Marlborough all of which are exclusively used for mussel spat catching and nursery activities. In Marlborough, all nursery water space owned by the MFA is fully subscribed, underscoring strong regional demand for nursery capacity. 35% of the Association's ordinary members currently lease nursery lines from MFA in Marlborough. Many mussel businesses are reliant on access to MFA owned nursery space, as their own farming portfolios lack suitable areas for spat retention and early stage growth. This reliance highlights the regional importance of the Association's nursery water space.

MFA also owns a 16% shareholding in the Golden Bay Ring Road Farming Company and a 20% shareholding in the Tasman Bay Ring Road Farming Company, with both entities being the consent holding entities for mussel water space in the Tasman region.

7.1.5 Activity Description

The application site will be used as dedicated mussel nursery water space. Spat sourced primarily from Te Hiku and hatcheries will be deployed at sizes of approximately 300 microns–10 mm and on-grown to a maximum shell length of about 50 mm. In practice, most spat will be transferred as intermediate seed at around 25 mm to existing crop sites.

The nursery will comprise 96 conventional longline structures (screw anchors, warps, double backbones, floats and growing rope) within a 90 hectare footprint. Each backbone will be 180 metres long, spaced at 23.19 metres, giving a total backbone length of 17,280 metres. To reflect the semi exposed nature of the site (open to northerly conditions), a 3:1 warp ratio has been adopted and line spacing increased from the industry norm of 20 metres.

Backbones may be held at the surface or submerged to about 3 metres to manage wave energy and blue mussel settlement.

As a nursery operation, shorter droppers of approximately 8–10 metres will be used, compared with the 12–15 metre droppers typical of crop sites. The lines will occupy only about 25% of the water column, with an average site depth of around 40 metres.

Orange mussel floats will be placed at the ends of each line and at the centre of the outside lines, with additional Aids to Navigation (including special marks and radar reflectors) installed in accordance with directions from the Harbourmaster under delegated authority from Maritime New Zealand, to ensure navigation safety. As with other mussel farms, the public will be able to fish, dive and tie up to the lines.

The farm will be operated in accordance with industry best practice, including the MFA ECP and A+. Consent conditions will include beach cleaning requirements and operation under a Biosecurity Management Plan and a Marine Mammal Management Plan. Because the site will be operated by MFA members it will also be operated in accordance with the Site Management Plan provided in **Schedule E4**.

7.1.6 Project Delivery

MFA has obtained written Expressions of Interest for the proposed Papatua water space. On this basis, MFA expects the lines to be balloted within one month of obtaining consent, and for all lines to be installed within 12 months. The first intermediate seed mussels would be ready for harvest and relocation from the site within 12 months. The NZIER economic assessment (**Schedule D22**) assumes that all lines will be producing seed by Year 2.

7.2 Benefits

7.2.1 Production Supported, Indicative Export Value and Jobs Created

The application site has the potential to support a large proportion of the wider Te Taihu mussel industry, and potentially mussel production in other regions. As a dedicated nursery site, mussels will be relocated from the site prior to reaching harvestable sizes and on-grown at crop sites. As no mussels will be harvested for processing directly from the site, the production volumes supported by spat reared at the site are provided in lieu of specific harvest estimates.

Assuming the Papatua nursery water space is seeded with Te Hiku spat and the anticipated spat conversion ratio of 3:1 is achieved, the production supported equates to 7,963 GWT per annum, with an indicative export value of \$47 million and 89 FTE roles created. Under a potential future scenario where 100% hatchery spat is used, production supported increases to 33,138 GWT per annum, with an indicative export value of \$197 million (in 2026 dollars) and 373 FTE roles created.

Importantly, many of the FTE roles will be generated in provincial centres such as Havelock, where the mussel industry is the largest employer and plays a critical role in sustaining the town's economic prosperity.

Hatchery spat delivers marked productivity improvements through both improved genetics and the ability to achieve two (or potentially more) cycles per annum, as opposed to only one per annum with Te Hiku spat.

For the purposes of the NZIER economic assessment (**Schedule D22**), it was assumed that 80% of the total lines

would be seeded with Te Hiku spat in Year 1, and 20% with hatchery spat, with this allocation reaching a steady state of 50% Te Hiku spat and 50% hatchery spat by Year 5. At a 50:50 ratio, the production supported equates to **20,570 GWT per annum**.

7.2.2 Economic Impacts

NZIER finds that, based on an average expected production supported of 20,570 GWT the equivalent **production value will be \$33.9 million**, and the **annual potential export revenue will be \$122.4 million**.

7.2.3 Industry Wide Benefits

Given the breadth of the MFA membership, and that each membership has equal opportunity to secure a line via a ballot process, this application offers industry wide benefits. The ballot system utilised by MFA represents a fair and equitable means for all members to access to the Association's water space, as evidenced by the MFA current leases where both small growers and larger corporations are represented.

7.2.4 Community and Environmental Contribution

MFA will contribute \$10,000 per annum to community and restoration initiatives via the MFA Community and Environment Fund (MFA CEF). Combined with contributions from Guards Bay, Okuri Bay and Hāpuku Rock this would represent \$40,000 per year. The fund would be administered by MFA, with its selection criteria and goals determined by the MFA Board. Examples of support may include contributions to wilding pine control, marine ecosystem restoration activities and upgrades to community infrastructure in the Marlborough Sounds such as halls and jetties.

Assuming a conservative lease rate of \$4,000 per line, the site is projected to generate \$344,000 in annual revenue for MFA. This additional income would enable MFA to further expand its wide range of 'industry good' and 'community good' initiatives. Focus areas would include supporting applied research to boost industry productivity and building on the industry's existing social license.

7.2.5 Access to Nursery Water Space for Iwi

As access to mussel spat and seed are the biggest production constraints for the mussel industry, this is also a barrier to increased iwi involvement in aquaculture, as space based settlements via the Māori Commercial Aquaculture Claims Settlement Act do not guarantee access to the spat and seed required to establish a viable farming operation. These constraints have forced some iwi to accept cash settlements despite a preference for increased involvement in mussel production.

While this application cannot guarantee access to spat, it does guarantee iwi access to water space that is expected to deliver above average spat retention. Increased retention allows for the optimisation of available spat and will reduce pressure on both Te Hiku and hatchery spat sources.

MFA proposes to offer preferential access to 17.7% of the new Papatua lines to Maara Moana Partnership Limited, the commercial entity established to manage the aquaculture interests of the eight Te Taihū iwi. This allocation would support annual production of 1,686 GWT using Te Hiku spat and 7,026 GWT if using hatchery spat. This nursery capacity will readily support the development of 42.17 hectares of crop production in Richmond Bay.

7.2.6 Strategic Relevance

The Papatua application demonstrates strong alignment with the ADP by expanding high performing nursery space to boost sector productivity, supporting climate adaptation through access to cooler Outer Sounds waters, directly increasing iwi participation via dedicated water space allocation, and fostering innovation and equitable access. Collectively these enable sustainable, inclusive, and export driven aquaculture growth.

7.3 The Existing Environment

The Papatua application site is set within the Marlborough Sounds High Amenity Landscape, and Outstanding Natural Landscape in the MEP. It is within an area of High Coastal Natural Character and partially within an area of Outstanding Natural Character. The site is located well offshore/away from any ESMS identified in the MEP (including tubeworms on the shoreline to the south, a horse mussel bed to the northeast near the entrance to Port Gore, and a king shag colony to the south. It sits within the Marlborough Sounds Important Bird Area in the MEP but not within the Marine Mammal Distribution Area.

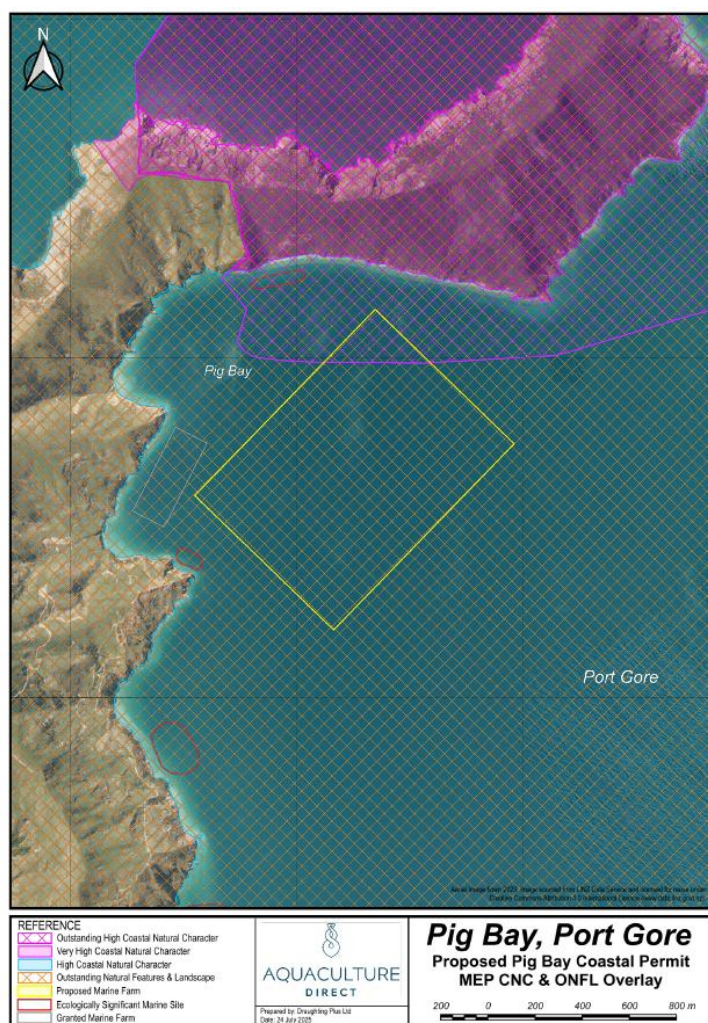


Figure 22 Papatua MEP Overlays

The proposal sits on the site of a previous application made by the New Zealand King Salmon Company Limited (NZKS) to establish a salmon farm and consequently there is a full suite of independent expert information about

the environmental context¹⁵⁷. The effects of longline marine farming are less than the effects of salmon farming. The site was subject to an application by Aroma Aquaculture for a spat nursery to be a listed project under the Fast-Track Approvals Act but was not listed¹⁵⁸.

Papatua is also the location of three historic mussel farms, two of which had applications to renew consents declined in 2014¹⁵⁹¹⁶⁰ and one which had a short term consent granted in 2023¹⁶¹, prior to its term being extended under the Resource Management (Extended Duration of Coastal Permits for Marine Farms) Amendment Act. The 2014 declines were on the basis of landscape, natural character and effects on king shag. The 2023 decision acknowledged the significant advance in understanding about King shag behaviours facilitated by the King Shag Project which ultimately found that mussel farms have a neutral, and in some aspects, positive effect for King shag. The 2023 decision also noted that the adjoining landscape had deteriorated in the interim due to 'notable disturbance'.

The Papatua landscape assessment¹⁶² provided in **Schedule D2** of this application describes Te Anamāhanga / Port Gore as a large bay opening to the north-east made up of a series of bays. The enclosing landscape is characterised by steeply rising hill slopes from a rocky shoreline to elevations of up to 200-300m above sea level. The landcover is dominated by regenerating indigenous coastal vegetation with areas recovering from historical clearing and burning. The shallower slopes close the coastal edge, including Papatua are managed in grazed pasture and reinforce a working rural landscape character. The catchment includes the Cape Lambert, Puzzle Peak, Melville Cove and Pari Kawau Scenic Reserves, the Titirangi Farm Park Recreation Reserve and the Sounds Foreshore Local Purpose Reserve.

The Robertson EclA in **Schedule D21** records the ecological value of the seabed Site ZOI as low and characterised by extensive soft sediment habitat representative of the Marlborough Sounds, with low physical complexity and no identified reef, biogenic habitat, TAR benthic taxa, or ESMS overlap. The seabed Project ZOI has very high ecological value as ESMS 2.33B, Hunia Coast (tubeworms) is approximately 170 metres from the proposed farm, and the Hunia king shag breeding site is 1,566 metres away.

All other ecological values are similar to those at each of the sites, and summarised in **Section 7.4**

The Marlborough Sounds Cruising Guide notes that Te Anamahanga/Port Gore is open to all winds and generally an uncomfortable place for cruising boats to anchor in bad weather although more sheltered options are available in Melville Cove. The site is more than three kilometres from the wreck of the Mikhail Lermontov and seven kilometres away from an airstrip used by Pelorus Air as part of a tourist operation.

There are no MEP mapped heritage sites or heritage trees in vicinity of the site. There are three archaeological

¹⁵⁷Environmental Protection Authority, [NZ King Salmon \(NSP000002\)](#) (EPA RMA Applications database, last accessed 16 July 2026).

¹⁵⁸Ministry for the Environment, [Aroma Aquaculture Port Gore Spat Nursery Site](#) (Fast-track Projects, MfE, last accessed 16 July 2026).

¹⁵⁹Marlborough District Council, [Resource Consent U140392](#) (MDC property files).

¹⁶⁰Marlborough District Council, [Resource Consent U140391](#) (MDC property files).

¹⁶¹Marlborough District Council, [Resource Consent U180586](#) (MDC property files).

¹⁶²Coombs, B., Adam A. (2026) Marlborough Sounds Aquaculture Project – Papatua Landscape, Natural Character and Visual Amenity Assessment (**Schedule D2**).

sites identified on ArchSite¹⁶³ in the area. Q26/1 is a midden located on the beach bank immediately north of the stream mouth including a findspot for argillite. Q26/2 comprises one rough stone wall and two mounts located on the flat south of the stream. Q26/3 comprises three rectangular pits on the ridge on the south side of the bay with another probable pit to the southeast. This is a findspot for argillite flakes. The applicants do not consider the proposal will affect these sites.



Figure 23 Archaeological sites in the vicinity

7.4 Site Specific Effects Summary

An overview of effects with applicable references is provided in Table 29 below. Site specific effects that warrant further detail are set out in the following subsections.

Effect	Assessment	References
Positive effects	The proposal will create a range of economic, social, cultural and ecosystem benefits.	Part 5 Project Benefits
		NZIER Economic Assessment (Schedule D22)
		Project Coastal Ecological Assessment 2026 (Schedule D21)
Seabed	- Site specific seabed effects are set out in detail in Section 7.5 below. - In summary, as the proposed site layout avoids areas of reef and biogenic habitat, the seabed is appropriate for mussel farming, and the seabed effects are considered to be no more than minor.	Section 7.5 Seabed Effects
		Papatua Benthic Report 2026 (Schedule D1)
		Project Coastal Ecological Assessment 2026 (Schedule D22)
Water column	There will be negligible water column effects. Typically, little if any effects are detectable beyond the boundaries of the farm and the proposed site is in a well flushed environment.	Section 6.6 Water Column Effects
		Cawthron Mussel Farm Plankton

¹⁶³ [ArchSite: archaeological site recording scheme.](#)

Effect	Assessment	References
	The effects of mussel farms are relatively insignificant compared to other terrestrial and regional oceanographic drivers. It is not anticipated that there would be any adverse cumulative water column effects from the project.	Report 2020 (Schedule I3) Project Coastal Ecological Assessment 2026 (Schedule D22)
Marine mammals	- Effects on marine mammals are expected to be no more than minor. - Mussel farms have been coexisting with marine mammals since the inception of the industry. - The site will be operated in accordance with the A+ Sustainable Management Framework and the MFA ECP thereby ensuring that all best practices are followed to minimise the chance of marine mammal interactions. - The site will be operated in accordance with an MMMP as set out in the proposed consent conditions.	Section 6.7 Marine Mammal Effects Marine Mammals Letter 2026 (Schedule D20) Project Coastal Ecological Assessment 2026 (Schedule D22) Marine Mammal Management Plan (Schedule E1) and Proposed Conditions (Schedule F)
Seabirds	- Effects on the endangered king shag are not anticipated. - Recent studies show that king shag have individual foraging preferences. Some prefer to forage in marine farms, and the birds frequently use marine farms as roosting sites for rest or to digest their food. - No adverse effects on other seabirds are anticipated.	Section 6.8 Seabird Effects Seabirds Letter 2026 (Schedule D19) Project Coastal Ecological Assessment 2026 (Schedule D22)
Biosecurity	- There will be no more than minor biosecurity effects. - Any residual effects will be mitigated to the extent practical by the applicant operating biosecurity best practices set out in the A+ Sustainable Management Framework. - The site will be operated in accordance with a BMP as set out in the proposed consent conditions.	Section 6.10 Biosecurity Effects Project Coastal Ecological Assessment 2026 (Schedule D22) Biosecurity Management Plan (Schedule E3) and Proposed Conditions (Schedule F)
Fisheries resources	- The farms are sited over soft sediment which does not comprise important habitat for fish. - Mussel farming can provide benefits for pelagic and benthic species of both conservation and commercial importance.	Section 6.10 Fisheries Resources Effects Project Coastal Ecological Assessment 2026 (Schedule D21)
Landscape, and natural character	- Papatua specific landscape and natural character effects are set out in detail in Section 7.6 below. - In summary the landscape and natural character effects are considered appropriate in the context of the Papatua setting.	Section 7.6 Landscape and Natural Character Effects Papatua Landscape Assessment 2026 (Schedule D2)
Amenity	- Papatua specific visual amenity effects are set out in detail in Section 7.6 below. - In summary, the farm will have low visual effects from the land and low-moderate visual effects from the water in the vicinity of the site. - The main noise generated is during harvest, which occurs infrequently and over relatively short periods. There are limited numbers of dwellings in the vicinity, and noise will be within the	Section 6.12 Amenity Effects Papatua Landscape Assessment 2026 (Schedule D2)

Effect	Assessment	References
	limits set out in the MEP. Industry best management practices will be followed to minimise amenity effects.	
Security of Structures and Debris	- A condition requiring cleaning of beach debris is also proposed. - Taken overall, with the best management practices in place, the farm will be operated with structural integrity, and effects from debris will be no more than minor.	Section 6.13 Security of Structures and Debris
Navigation, Public Access and Recreation	- There will be no more than minor navigation effects. The farm will be installed and marked in a manner that enables safe navigation through and around the farm. - The farm blocks are sited in a manner that allows for navigation to and along the shore. Public access to the sites will still be enabled. - Effects on fishing are not anticipated but will be appropriately assessed by MPI. Navigation through and around the farm for fishing vessels will be enabled. Effects on fisheries resources will be no more than minor and, in some respects, positive. - Any residual effects will be mitigated to the extent practical by the applicant operating industry best practices. - Mussel farms are known to have positive effects for recreational fishing. - Site specific tourism effects are set out in Section 7.7 below and considered to be no more than minor.	Section 6.14 Navigation and Public Access Effects
		Section 6.15 Recreation and Tourism (including Fishing) Effects
		Section 7.7 Tourism Effects
Cultural Effects	- It is for iwi to determine cultural effects. - The site is not within a formal mātaihai, taiāpure or rāhui area. It is subject to applications under MACAA. - During engagement with pou taiao cumulative ecological and cultural effects were raised as the key concern noting that cultural values are intrinsically linked to ecological health. - The applicant anticipates ongoing engagement with iwi on this application and the resulting activity.	Section 6.16 Cultural Effects
Customary Fishing Effects	It is for iwi to determine effects on customary fishing however the EclA supports the applicants' initial assessment (set out in Section 7.8) that effects on customary fishing will be no more than minor.	Section 7.8 Customary Fishing Effects
Historic heritage	The historic heritage effects are considered no more than minor.	Section 6.18 Historic Heritage Effects
Cumulative	- The cumulative ecological effects will be negligible in magnitude and very low overall. - The cumulative landscape, natural character and visual effects will be neutral. - The application generally aligns with the policies that guide the identification of new space (AMAs) in the MEP.	Section 6.19 Cumulative Effects
		Papatua Landscape Assessment 2026 (Schedule D2)
		Project Coastal Ecological Assessment 2026 (Schedule D21)

Table 29 Papatua effects summary

7.5 Seabed Effects

An assessment of the seabed was carried out by Cawthron in 2021 to inform the previous NZKS application for a salmon farm¹⁶⁴. A new benthic assessment was undertaken by Robertson Environmental in 2026¹⁶⁵ to update and extend the previous assessment and is provided in **Schedule D1**.

Robertson's assessment comprised a seabed characterisation component involving multibeam survey, ground-truthing with images, and data processing and interpretation. A desktop review evaluated existing datasets and paid particular attention to identifying mapped sensitive habitats, regionally significant habitats or species and any records of TAR species as defined under the New Zealand Threat Classification System (NZTCS).

Robertson recorded Cawthron's description of mud dominated soft sediments with relatively low taxa richness beneath the proposed consent and more diverse cobble, sand shell hash and reef habitats including horse mussels, scallops, dog cockles, encrusting coralline algae, ascidians, tubeworms and reef fish inshore of the proposed consent.

Robertson recorded the following ecological observations at the application site:

- The benthic environment was typical of moderately exposed soft bottom habitats; and
- No sensitive, rare, or complex benthic habitats (e.g. horse mussel or rhodolith beds, tubeworm mounds, bryozoan thickets) were recorded; and
- No hard substratum, characterised by reef or biogenic habitats, was found within 20 metres of the proposed consent area; and
- No TAR marine invertebrate taxa or macroalga taxa were observed; and
- No mapped sensitive habitats or ESMS overlap with the proposed consent area.

Figure B-5 is replicated here.

¹⁶⁴ Elis J, Taylor D, Keeley N, Forrest R, Goodwin E, Clark D, Dunmore R, Atalah J 2011. [Assessment of Effects of Farming Salmon at Papatua Bay, Port Gore: Deposition and Benthic Effects](#). Prepared for New Zealand King Salmon Ltd.

¹⁶⁵ Robertson, B. *Coastal (Benthic) Habitat Characterisation - Pig Bay Proposed Marine Farm, Te Anamāhanga / Port Gore, Marlborough Sounds*. (Robertson Environmental Limited 2026) (**Schedule D1**).

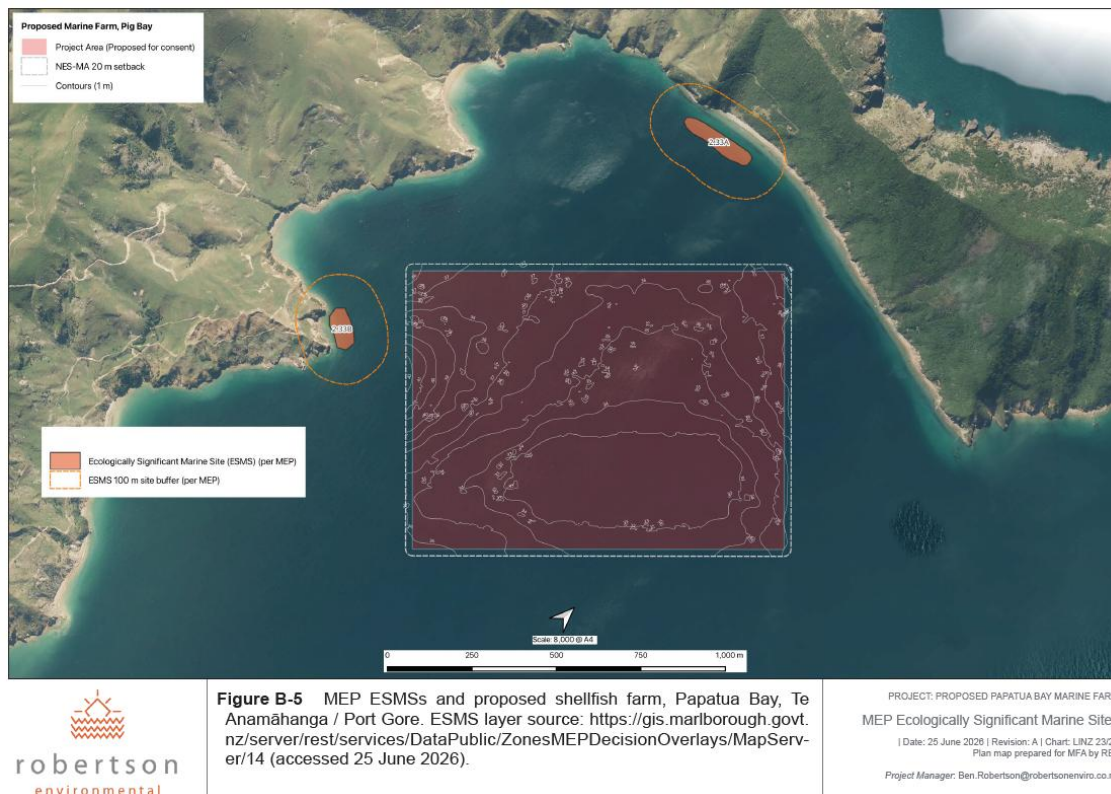


Figure 24 Papatua in the context of ESMS

Robertson concluded that:

- The seabed within the proposed site is a homogeneous soft-sediment basin of low structural complexity, comprising mud to muddy sand across the 90.2 hectare consent area.
- The multibeam and AUV-led survey confirms that the site remains a mud dominated habitat with epifaunal assemblages typical of sheltered soft bottom environments in the Marlborough Sounds.
- No sensitive, rare, or structurally complex benthic habitats, and no TAR species, were identified within the site.
- Reef, cobble and other complex habitats remain confined to the shallower inshore margin outside the site.
- *'On this basis, the benthic receiving environment within the proposed consent footprint is considered ecologically typical for its setting and suitable for the proposed marine farming activity'.*

Residual mussel shell is expected to return to baseline levels 5 to 11 years after the farm is removed.¹⁶⁶

In summary the seabed is appropriate for mussel farming, and the seabed effects are considered to be **no more than minor**.

7.6 Landscape and Natural Character Effects

7.6.1 Introduction

A landscape, visual and natural character assessment was carried out by Brad Coombs of Isthmus Group in

¹⁶⁶ Davidson, R.J., Scrimgeour, G.J., Richards, L.A. and Locky, D., 2024. Multi-spatial and temporal assessments of impacts and recovery of epibenthic species and habitats under mussel farms in the Marlborough Sounds, New Zealand. *Journal of Shellfish Research*, 43(1), pp.15-28. <https://www.researchgate.net/publication/389554576>

2026¹⁶⁷ and is provided in **Schedule D2**. Josh Hunt of Narrative Landscape has peer reviewed the assessment as set out in the Joint Memorandum provided as **Schedule D25**. The landscape assessment followed the NZILA guidelines – *Te Tangi a te Manu*¹⁶⁸, considering physical, associative and perceptual attributes. Natural character was assessed with reference to the *Te Tangi a te Manu* definition and MEP Policy 7.1., considering abiotic, biotic and experiential attributes.

The assessment was informed by a site visit undertaken in December 2025.



Figure 25 Approaching the site at Viewpoint 4

7.6.2 Existing Landscape and Natural Character

Coombs describes Papatua as a visually and physically discrete part of the broader landscape of Te Anamāhanga / Port Gore, between Taratara and Hunia. The proposed farm is adjacent to an existing 6 hectare mussel farm site 8167. That farm, along with the ten marine farms in Melville Cove to the south, is authorised to remain until 31 December 2050 and forms part of the enduring receiving environment.

The MEP identifies the Outer Sounds Landscape as an ONL and a nested sequence of smaller areas of ONL, including Papatua, within the Te Anamāhanga / Port Gore Landscape. The assessment identifies the values as relating principally to high levels of naturalness, exceptional biodiversity on Cape Lambert and Cape Jackson, steep eroded cliffs and rock shores and an internationally significant sequence of indigenous vegetation, from Mt Furneaux to the coast.

The proposed site is within an area of High Natural Character. Its northernmost corner is partially within the '*relatively arbitrary*' boundary of the Cape Lambert/Cape Jackson ONC.

The assessment describes modifications in the Papatua setting. The regenerating indigenous coastal vegetation is interspersed with large patches of managed pasture, and an existing marine farm sits inshore of the proposed new one. The area at the base of Cape Lambert which backdrops the marine farm site is in pasture with prominent side cut tracks and an unconsented shelter/shed to the north of the site.

The enclosing slopes are predominantly managed pasture, with fragmented regenerating native vegetation in gullies, areas of indigenous vegetation on outer headlands and upper slopes, and indigenous forest on upper

¹⁶⁷ Coombs, B., Adam, A. (2026). Marlborough Sounds Aquaculture Project – Papatua Landscape, Natural Character and Visual Amenity Assessment. Isthmus Group Limited (**Schedule D2**).

¹⁶⁸ Te Tangi a te Manu: [Aotearoa New Zealand Landscape Assessment Guidelines](#), Tuia Pita Ora New Zealand Institute of Landscape Architects (July 2022).

ridgelines and peaks. Farm tracks, fencing, a small hut, moorings, roading, an airstrip, buildings and campground facilities in Titirangi Bay, and the existing marine farm contribute to an established working rural and marine farming character. The inshore waters of Papatua Bay exhibit a modified, working character.

7.6.3 Landscape Character Effects

The assessment considers physical, perceptual and associative landscape character. The assessment finds that:

- *While the proposal will lead to a localised reduction in naturalness within the immediate site, primarily due to seabed disturbance and occupation of the water column, the overall naturalness of Papatua will remain largely unchanged, as the development is viewed within the context of a large-scale enclosing, modified working rural landscape, within a broader more natural context.*
- *The scale of the surrounding landforms and seascape, combined with the visually recessive nature of the mussel nursery farm, will ensure that the vividness and memorability of the landscape setting are maintained.*
- *The wider landscape context, including the surrounding landforms and pastoral and forested ridgelines, will remain unaffected by the proposal.*

Landscape character effects are assessed as moderate-low at the site scale and low at the scale of Te Anamāhanga / Port Gore.

The assessment considers effects on the ONL values set out in the MEP. It finds that the farm will have low adverse effects on these values for the following reasons:

- *The Papatua site and the mussel nursery farm proposal are project scale and recessed features surrounded by broad scale seascapes and landscapes, which accommodate productive farming on the sea and the land.*
- *Mussel farms have very limited physical effects which are not generally experienced beyond the immediate site of the farm itself.*
- *The ONL values largely pertain to terrestrial landscape and vegetation values and the coastal edge, which are unaffected by mussel farms.*
- *The ONL values are broad and accommodating of the ongoing use of the waters for mussel nursery farm production.*
- *The outer Te Hoiere / Pelorus Sound waters accommodate a range of existing marine farm developments which are integrated into the landscape and natural character values of the Sounds'.*

7.6.4 Visual Amenity Effects

The assessment recognises that the existing mussel farm infrastructure offers a marine farming character to the bay which complements the land-based farming activities. It sets out a number of environmental and observational factors that influence the visibility of a marine farm and considers water based, land based and aerial viewpoints.

It finds that:

- *Visible infrastructure is limited to above-water infrastructure, which is limited to lines of floats and cardinal buoys floating on the surface of the water;*
- *From water-based viewpoints, the marine farm will be visually recessive, and set against a more dominant landform, and will be typically only discernible within approximately 2 km, generally within the line between Hunia and Taratara, from the central channel of Te Anamāhanga / Port Gore or by*

observers actively looking for it;

- *Land-based viewing opportunities are minimal, and where available, views occur at considerable distance, with the mussel farm forming a barely perceptible element within the wider landscape; and*
- *From the air, the farm will appear as a faint, low-contrast pattern on the water surface, remaining subordinate to the broader marine farming context of the Marlborough Sounds.'*

Visual amenity effects are assessed as low from the land and moderate-low from the water.

7.6.5 Natural Character Effects

Coombs assesses natural character through biotic, abiotic and experiential attributes. The context of the assessment is that while the surrounding landform is relatively remote it is modified and characterised by working farming elements including the existing marine farm.

The assessment of biotic effects was informed by the Robertson EclA, particularly its findings regarding the soft sediment seabed and that overall, the biotic attributes reflect a modified but naturally low-complexity marine ecosystem with limited ecological distinctiveness at the site scale. The EclA also informed the abiotic attributes which reflect a relatively homogeneous and typical coastal marine environment of the outer Pelorus Sound, with low natural physical variability at the site scale. Experiential attributes were considered from the water, the land and the air.

The assessment finds that:

- *'The seafloor conditions beneath the site are suitable for consideration of marine farming activities;*
- *Installation of anchors and line weights will cause some disturbance to the seafloor; however, sediments are expected to re-settle naturally around the structures over time;*
- *The proposal presents a low risk of entanglement for marine mammals that is managed by conditions and management plans;*
- *Potential impacts on King Shags are expected to be neutral;*
- *Continued and new marine farming at Papatua may enhance foraging and roosting opportunities for certain bird species;*
- *The marine farm will be visually contained by the surrounding landform of Papatua, between Taratara and Hunia, limiting wider visibility;*
- *The development will primarily be experienced from water-based viewpoints; and*
- *Marine farming structures are visually recessive, particularly from a distance beyond 250m to 300m'.*

Natural character effects are assessed as moderate at the site scale and low at the scale of Te Anamāhanga / Port Gore.

The assessment considers the effects on the ONC¹⁶⁹ which has characteristics '*generally associated with the terrestrial natural character values and are focussed on the two capes, the coastline and a buffer into the adjoining coastal marine waters.*' While a small boundary adjustment could be made to remove the corner within the ONC '*such a small intrusion would not adversely affect the characteristics listed in Volume 3, Appendix 2, of the MEP*'.

¹⁶⁹ ONC 9 The Capes

The assessment therefore finds that *'the outstanding natural character of The Capes would not be adversely affected'*.

7.6.6 Cumulative Effects

The assessment considers cumulative effects to be limited to those effects experienced from a close distance to the farm. It considers the farm is unlikely to be experienced by travelling vessels as it is tucked into the broader scale of Tucked into the broader scale of Te Anamāhanga / Port Gore and the enclosing landforms of Capes Lambert and Jackson.

The assessment finds that, *'given the recessed nature of Papatua and the accommodating nature and scale of the surrounding landscape'* the cumulative effects are assessed as low.

7.6.7 Landscape and Natural Character Effects Conclusion

Overall, the assessment finds that the Outer Te Hoiere/Pelorus Sound and surrounding landscapes have an established productive character associated with both land based activities and marine farming. The Papatua site is an accommodating location for a valued spat nursery farm, in addition to the existing farm. The site and surrounding landscape and seascape are predominantly productive with some areas of elevated natural character and landscape values, which are characterised by a bold landscape, natural values and exposed headlands, capes and rocky shores at an expansive scale.

The assessment concludes that *'the Papatua site within Te Anamāhanga / Port Gore is a logical and accommodating site for a new spat nursery mussel farm and is appropriate in landscape, natural character and visual terms'*.

Overall, it is considered that site level landscape, visual and natural character effects will be appropriate in landscape, natural character and visual terms.

7.7 Tourism Effects

The site is more than three kilometres away from the wreck of the Mikhail Lermontov. The top of the wreck lies in 14m of water southeast of the Hunia Peninsula. Go Dive Pacific operates chartered dive tours and own a lodge in Melville Cove.¹⁷⁰ Existing marine farms can be seen from the lodge. Other divers who travel from Tōtaranui may pass the farm on their way to the wreck. It seems highly unlikely that someone might choose not to dive the Mikhail Lermontov because there is another marine farm in Port Gore.

Pelorus Air¹⁷¹ operate a scenic flight that lands at the airstrip under Mount Furneaux / Puhikererū. While the farm will be very difficult to see from the airstrip itself at a distance of more than seven kilometres, it will be visible when flying over the site. It is plausible that the presence of a marine farm may detract from values held by some tourists who take scenic flights.

A number of charter fishing operators offer a trip to Port Gore. When in Port Gore those charter operators have a choice as to where to fish. Some charter operators expressly target marine farms because of the abundance of fish. Others would prefer to fish in locations where there are no surface structures. Irrespective of whether

¹⁷⁰ <https://www.godivepacific.nz/lermontov-tours>

¹⁷¹ <https://www.pelorusair.com/>

this farm is granted, there will remain an existing farm in the bay until 2045. Given the availability of sites in the Marlborough with and without marine farms, the presence of Papatua is unlikely to have any material effect on tourism even were some charter operators to avoid fishing in the area due to the presence of the farm.

Overall tourism effects are considered **no more than minor**.

7.8 Customary Fishing Effects

As set out in **Section 6.17** the applicant has undertaken an initial assessment of effects on customary fishing using the best available information as follows:

Existing customary use and values	Papatua is in Outer Anamāhanga Port Gore and sits within the customary food gathering area/rohe moana of Te Taihu iwi.
	The bay and the wider Anamāhanga Port Gore and Outer Sounds area supports customary gathering of finfish and kaimoana, but there are no mapped mātaimai, taiāpure or rāhui in the immediate footprint of the proposed nursery.
	In the Statements of Association Ngāti Apa ki te Rā Tō describe Te Ope-a-Kupe / Te Anamāhanga as one of their earliest Kurahaupō settlement areas and Tauranga waka in Te Taihu, central to identity, associated with Kupe and later migrations, and occupied continuously since the fourteenth century with pā, kāinga, cultivations, urupā and ongoing kaitiaki responsibilities.
	In the Statements of Association and in their Iwi Management Plan (2025) ¹⁷² , Rangitāne describe Te Anamāhanga / Port Gore (Te Ope-a-Kupe) as one of their key Kurahaupō settlement areas and mahinga mātaimai, central to identity and used for koura, pāua, karengo and kopakopa. Rangitane have a history of fishing for kina, pāua and scallops in the area and consider that even soft sediment has value for those species. The Rangitāne Iwi Management Plan states: » <i>Policy 3A: Ensure that our mahinga kai sites, traditional fishing grounds, and other areas which provide for customary activities are protected.</i> » <i>Policy 3B: Provide for the restoration of access, land rights and ownership of whenua to Rangitāne to ensure that our people are able to access our mahinga kai sites, traditional fishing grounds, and other areas which provide for customary activities.</i>
	In the Statements of Association Ngāti Kuia describe Te Anamāhanga as one of their first Te Taihu occupation areas, with continuous ahi kā, tauranga waka, pā, kāinga and urupā.
	In the Statements of Association Te Ātiawa identify Port Gore as the papa tupu of Ngāti Hinetuhi, a primary papakāinga with multiple wāhi tapu, mahinga kai and strong kaitiaki obligations. In the Te Ātiawa Iwi Management Plan (2014) ¹⁷³ it states: <i>Objective 4 Te Ātiawa Iwi will be able to freely participate in both traditional and contemporary cultural practices, in engaging the fresh water resources of the rohe.</i> <i>Policy 5 Avoid further losses and constraints, imposed through historic management practices, on access to customary fishing resources and the cultural practices that those resources sustain.</i>
	The Ngāti Rārua Iwi Management Plan (2021) ¹⁷⁴ states: <i>9.1 Huanga Objective</i> <i>Mahinga kai is protected, maintained and managed to enable sustainable use and the exercise of</i>

¹⁷² Rangitāne o Wairau. [Te Aropipi Taiao Strategy and Iwi Taiao Management Plan](#) (July 2025).

¹⁷³ Te Ātiawa o Te Waka-a-Māui. [Iwi Environmental Management Plan](#) (August 2014).

¹⁷⁴ Te Rūnanga o Ngāti Rārua. [Poipoi Te Ao Tūroa Ngāti Rārua Environmental Strategy](#) (November 2021).

	<i>customary practices by present and future generations.</i> <i>9.2 Tikanga Policies and methods</i> <i>I Ensure the protection, maintenance and management of mahinga kai.</i> <i>II Protect access to mahinga kai for Ngāti Rārua whānau.</i> Three archaeological sites comprising a midden, walls and pits are noted as recorded on ArchSite inshore of the proposed farm. Ngāti Apa have marine farms in Port Gore, and Ngāti Kuia made applications which had been declined.
Nature of effects	The EclA finds that the farm structures may have positive benefits for fish, there are no TAR species present and the overall effect will be negligible to low. The nursery structures would exclude customary fishing from the seabed, but customary fishing can continue in the water column between and around lines using small vessels, as occurs at existing mussel farms elsewhere in the Sounds. The proposed 90 hectare farm footprint is small relative to the available customary fishing grounds in Papatua and adjacent coastal waters, which MPI has previously treated as a single wider fishery when advising on a similar spat-nursery proposal at this location.¹⁷⁵ Shellfish farming does not deplete target customary species, and recent science and MPI decisions recognise that mussel farms may enhance habitat and local fish abundance, which can in turn support customary harvest at farm margins. Past experience operating a mussel nursery in the area found that scallop spat would settle on the spat lines, grow healthy and fat and then drop to the seabed. In this respect there may be some positive effects.
Proposed management response	The proposed conditions can ensure that customary fishers can safely navigate through or alongside blocks and continue to access customary species in the area.

Table 30 Papatua customary fishing assessment

7.9 Proposed Conditions

Proposed consent conditions are set out in Schedule F. For Papatua they require that mussels larger than 40mm average may not be reseeded onto the site and mussels from the site must not be harvested direct to the factory. Similar to all MFA shared nursery site consents operation must be in accordance with a Site Management Plan (provided in **Schedule E4**). Conditions also require management of debris including participation in the MFA beach cleaning programme. Vessels must not transit within 200 metres of any king shag colony. The site must be operated in accordance with an MMMP and a BMP both of which are provided in **Schedule E**.

7.10 Conclusion

The Papatua application will provide 90 hectares of dedicated mussel nursery water space in Te Anamāhanga/Port Gore. Papatua offers highly favourable nursery conditions, with high primary productivity, cool water and strong currents and is capable of supplying seed for up to 50% of Marlborough's mussel farms. As an MFA application, this seed will be available to a broad range of industry members and 17.7% of the lines will be made available as preferential access for iwi.

¹⁷⁵ Ministry for Cities, Environment, Regions & Transport. [Aroma Aquaculture Port Gore Spat Nursery Site](#) (Updated 19 December 2024).

NZIER finds that the site will support 20,570 GWT of production, with an equivalent production value of \$33.9 million and annual potential export revenue of \$122.4 million. MFA will contribute \$10,000 per annum to community and restoration initiatives.

The potential environmental effects have been comprehensively assessed and considered to be no more than minor. The EclA finds that cumulative ecological effects will be negligible in magnitude and very low overall. It is for iwi to determine cultural effects, however the initial assessment finds that effects on customary fishing will be no more than minor. The landscape and natural character assessment finds that the proposal will be appropriate in landscape, natural character and visual terms. It will not affect the values and characteristics of the mapped ONC or ONL.

The site will be operated in accordance with industry best practice, and the proposed conditions provide appropriate mitigations including operation in accordance with the MMMP, the BMP and the Papatua Site Management Plan. The proposed conditions also provide a placeholder for ongoing iwi engagement on effects on cultural values including mauri.

The Papatua application directly responds to the industry's primary production bottleneck, enables climate adaption, supports iwi aquaculture and is consistent with the purpose of the FTAA.

Part 8 Guards Bay

8.1 The Proposal

8.1.1 Overview

P H Redwood & Co Limited (PHR) is applying for resource consent to undertake mussel nursery activities using conventional longline structures at a 78.47 hectare site in Guards Bay, Outer Sounds. The site location, site plan and layout plans are included in **Schedule A**.

Located within a hydrodynamically distinct region characterised by cooler, nutrient rich waters influenced by Cook Strait, Guards Bay has a long standing reputation for delivering above average spat retention and consistent nursery performance.

The purpose of the application is to undertake mussel nursery activities, including providing valuable nursery space for industry partners to ensure year round product is available for the PHR factory. This will also ensure significant productivity uplift for the broader industry.

8.1.2 Location

Guards Bay is located in the Outer Sounds between the eastern entrance to Pelorus Sound and the western approach to Queen Charlotte Sound. It is bordered by Tītī Island and Cook Strait to the north, Forsyth Island to the west, and Waitui Bay to the east, with the smaller embayments of Tītīrangi and Hikoekoea extending inland. A detailed locality plan is provided in **Schedule A**.

The entrance to Guards Bay is approximately 3.6 km wide between Alligator Head and Tawaroa Point, and the bay encompasses around 1,200 hectares¹⁷⁶. Access is available via Tītīrangi Road and the DOC administered Tītīrangi Farm Park, although vehicle access is currently constrained due to weather related damage.

8.1.3 Site Characteristics for Shellfish Farming

The Guards Bay application site is located between Hikoekoea Bay and the southern side of Alligator Head in the Outer Sounds. The site is separated from Waitui Bay to the east by steep ridgeline which extends south towards Puzzle Peak. To the northwest lie the Chetwode Islands and to the north, Titi Island. To the west lies Forsyth Island and Allen Strait, which provides access into Pelorus Sound via East Entry.

Guards Bay is considered hydrodynamically different from the vast majority of the water space currently available to the mussel industry. As an Outer Sounds location east of Pelorus Sound, it is heavily influenced by Cook Strait waters. The Redwoods have observed, across several decades of farming, that water temperatures in Guards Bay are generally 1 - 2°C cooler than in the nearby Pelorus Sound.

Since its installation in 1988, mussel farm 8164, which makes up the inshore area of the proposed new water space, has consistently delivered above average spat retention. Based on this historic mussel performance data, the applicant believes the new space will comprise a nationally significant mussel nursery. As with Papatua, the environmental drivers known to be positively correlated with mussel performance are present (nutrient availability, cooler waters and high current velocities).

¹⁷⁶ Conservatively calculated using [MDC Smartmaps](#) GIS tools.

A key distinction between Guards Bay and Papatua is the comparative level of shelter offered. Guards Bay is accessible for industry vessels in almost all weather conditions, whereas Papatua is inaccessible when windspeeds exceed 30 knots from the south or easterly quadrants for prolonged periods. Guards Bay is also located in close proximity to important crop production sites throughout Pelorus Sound.

The Robertson EclA in **Schedule D21** records the depth range as 15 to 30 metres.

8.1.4 Applicant

The Redwood family name is synonymous with both mussel farming in Marlborough and the Guards Bay area. The family are widely recognised as pioneers of the New Zealand industry having first installed mussel farms along the western shore of Forsyth Island in the late 1970s. The family's existing mussel farm in Guards Bay began production in 1988.

In the early 2000s, the Redwoods co-founded PHR and launched the Omega Seafood brand¹⁷⁷, taking a significant step towards becoming a vertically integrated business. Today, the intergenerational business employs 34 staff directly, along with a range of contractors and Omega won gold in the Outstanding Food Producer Awards in 2024.

Market demand for the premium, precooked and vacuum packed shellfish offerings is strong, with 85% of all production destined for export markets. The Redwood family currently process approximately 2,000 GWT of mussels per annum, with plans to increase this to 4,000 GWT by 2030 if the nursery site is granted.

8.1.5 Activity Description

The application is to establish dedicated mussel nursery water space, using conventional longline structures, operated to industry best practice and supported by environmental and community initiatives.

The site will be used for nursery production of spat sourced primarily from Te Hiku and hatcheries. Spat will be deployed at approximately 300 microns–10 mm and on-grown to a maximum shell length of about 50 mm before transfer to crop sites.

The nursery will comprise 100 conventional longline structures (screw anchors, warps, double backbones, floats and growing rope) within a 78.47 hectare footprint. Based on site geometry, individual backbones will range from around 87–275 metres, spaced at 22.5 metres to reflect the semi exposed nature of the site (partial exposure to northerly conditions) with a total backbone length of 21,511 metres. Backbones may be held at the surface or submerged to about 3 metres to manage wave energy and blue mussel settlement, with dropper lengths typically 8–10 metres.

Orange mussel floats will be located at the ends of each line and at the centre of the outside lines, with additional Aids to Navigation (including special marks and radar reflectors) installed under direction from the Harbourmaster, to ensure navigation safety. As with other mussel farms, the public will be able to fish, dive and tie up to the lines.

The farm will be operated in accordance with industry best practice, including the MFA ECP and A+. Consent

¹⁷⁷ <https://www.omegaseafood.com/about>

conditions will include beach cleaning requirements and operation under a BMP and a MMMP.

8.1.6 Project Delivery

PHR are committed to commencing development of the site within 1 month of obtaining consent. Full development of the site will occur in stages, with all 100 lines expected to be installed within 3 years. The first intermediate seed mussels would be ready for harvest and relocation from the site within 12 months. The NZIER economic assessment (**Schedule D22**) assumes that all lines will be producing seed by Year 4.

8.2 Benefits

8.2.1 Production Supported, Indicative Export Value and Jobs Created

The application site has the potential to support the growth aspirations of PHR, and potentially the wider industry through spat production contracts or lease agreements. As a dedicated nursery site, mussels will be relocated from the site prior to reaching harvestable sizes and on-grown at crop sites. As no mussels will be harvested for processing directly from the site, the production volumes supported by spat reared at the site are provided in lieu of specific harvest estimates.

Assuming the Guards Bay nursery water space is seeded with Te Hiku spat and the anticipated spat conversion ratio of 3:1 is achieved, the production supported equates to 8,774 GWT per annum, with an indicative export value of \$52 million and 99 FTE roles created. Under a potential future scenario where 100% hatchery spat is used, production supported increases to 36,560 GWT per annum, with an indicative export value of \$217 million (in 2026 dollars) and 411 FTE roles created.

Importantly, many of the FTE roles will be generated in provincial centres such as Blenheim and Havelock, where the mussel industry is a significant employer and plays a critical role in sustaining economic prosperity.

Hatchery spat delivers marked productivity improvements through both improved genetics and the ability to achieve two (or potentially more) cycles per annum, as opposed to only one per annum with Te Hiku spat.

For the purposes of the NZIER economic assessment (**Schedule D22**), it was assumed that 100% of the total lines would be seeded with Te Hiku spat in Year 1, with this allocation reaching a steady state of 80% Te Hiku spat and 20% hatchery spat by Year 4. At an 80:20 ratio, the production supported equates to **14,331 GWT per annum**.

8.2.2 Economic Impacts

NZIER finds that, based on an average expected production supported of 14,331 GWT the equivalent **production value will be \$23.6 million, and the annual potential export revenue will be \$85.3 million.**

8.2.3 Climate Adaptation

The Outer Sounds are characterised by cooler waters year round, strong current velocities, and a direct hydrodynamic connection to Cook Strait. Cooler water temperatures help reduce stress in mussels, while strong currents provide a steady supply of food and aid in the dispersal of harmful algal blooms. The proximity to Cook Strait also enhances nutrient availability and helps buffer the area from land based impacts, such as flooding from the rivers feeding into Pelorus Sound. Locating critical nursery sites in these cooler, more productive Outer Sounds waters represents one of the most effective climate adaptation strategies available to the Te Taihu mussel industry.

8.2.4 Community and Environmental Contribution

If the application space is granted, PHR propose to donate \$10,000 per annum to the MFA CEF for the life of the consent.

8.2.5 Strategic Relevance

The Guards Bay application demonstrates strong alignment with the ADP by expanding high performing nursery space to boost sector productivity, increasing mussel production and supporting climate adaptation through access to cooler Outer Sounds waters. Collectively, these features underscore the project's fit with the Plan's pathways for sustainable, inclusive, and export driven aquaculture growth.

8.3 The Existing Environment

The Guards Bay application site is set within the Marlborough Sounds High Amenity Landscape, and Outstanding Natural Landscape in the MEP. It is not within an area of High Coastal Natural Character or Outstanding Natural Character. The site is located well away from any ESMS identified in the MEP. It sits within the Marlborough Sounds Important Bird Area in the MEP but not within the Marine Mammal Distribution Area.

Applications for mussel farms further north of the application site were declined in 1995¹⁷⁸ and 1996¹⁷⁹ on the basis of natural character (landscape) effects and proximity to a vessel mooring and anchorage. The current application is further south away from those sites.

The applicant made submissions to the MEP to reinstate the AMA for its existing 12 hectare conventional longline farm and an additional 16.63 hectare subsurface farm and shift it seaward. The MEP decisions did not include this AMA and are subsequently subject to Environment Court appeal.

¹⁷⁸ Marlborough District Council, [Resource Consent U950881](#) (MDC property files).

¹⁷⁹ Marlborough District Council, [Resource Consent U951181](#) (MDC property files).



Figure 26 Guards Bay MEP Overlays

The Guards Bay landscape assessment¹⁸⁰ provided in **Schedule D5** describes Guards Bay a moderately large, northwest facing bay in the Outer Sounds, characterised by steeply rising hills from a rocky shoreline to ridgelines of up to approximately 500 metres above sea level. The landscape has a predominantly working rural character, with managed grassland and pasture interspersed with regenerating native vegetation in gullies and indigenous forest on the upper ridges and peaks. The bay comprises Titirangi Bay and Hikoekoea Bay, separated by a prominent headland, with existing rural infrastructure including the Titirangi Farm 'working farm' accommodation.

The coastal waters include the existing marine farm, several existing moorings and an established anchorage south of Alligator Head. The area has low levels of recreational activity compared with other parts of Pelorus Sound.

The Robertson EclA in **Schedule D21** records the ecological value of the Site ZOI as low and characterised by extensive, soft sediment habitat, representative of the Sounds with low structural complexity and no identified reef, biogenic habitat, or other high value features within the consent footprint. The Project ZOI includes an area of reef habitat inshore of the site which, while not yet characterised in detail, is expected to provide greater habitat complexity than the footprint sediments.

All other ecological values are similar to those at each of the sites, and summarised in **Section 8.4**

¹⁸⁰ Coombs, B., Adam A. (2026) Marlborough Sounds Aquaculture Project – Guards Bay Landscape, Natural Character and Visual Amenity Assessment (**Schedule D5**).

The Marlborough Sounds Cruising Guide notes that there are two club moorings at Hikoekoea (Goose) Bay south of the application site which provides variable shelter and holding depending on the wind direction. The nearest tourism operation is the Titirangi Farm Park¹⁸¹ some 3.5km away from the site.

There are no MEP mapped heritage sites or heritage trees in vicinity of the site. There are four archaeological sites identified on ArchSite in the area. P26/140 and P26/141 are middens in the road bank as it winds around the ridge.

P26/142, inshore of the proposed site, is a shell midden located at the back of the beach. The ArchSite mapping is incorrect as the recorded site does not overlap with the existing farm.¹⁸² P26/143 is also a shell midden at the back of the beach. The applicants do not consider the proposal will affect these sites.



Figure 27 Archaeological sites in the vicinity

8.4 Site Specific Effects Summary

An overview of effects with applicable references is provided in Table 31 below. Site specific effects that warrant further detail are set out in the following subsections.

Effect	Assessment	References
Positive effects	The proposal will create a range of economic, social, cultural and ecosystem benefits.	Part 5 Project Benefits
		NZIER Economic Assessment (Schedule D22)
		Project Coastal Ecological

¹⁸¹ <https://www.Titirangifarm.co.nz/>

¹⁸² Site Record Form P26/142 (Schedule I6).

Effect	Assessment	References
		Assessment 2026 (Schedule D21)
Seabed	- Site specific seabed effects are set out in detail in Section 8.5 below. - In summary, as the proposed site layout avoids areas recorded as reef and biogenic habitat, the seabed is appropriate for mussel farming, and the seabed effects are considered to be no more than minor.	Section 8.5 Seabed Effects
		Guards Bay Ecological Assessment 2021 (Schedule D3)
		Guards Bay Ecological Assessment 2024 (Schedule D4)
		Project Coastal Ecological Assessment 2026 (Schedule D21)
Water column	- There will be negligible water column effects. Typically, little if any effects are detectable beyond the boundaries of the farm and the proposed site is in a well flushed environment. - The effects of mussel farms are relatively insignificant compared to other terrestrial and regional oceanographic drivers. It is not anticipated that there would be any adverse cumulative water column effects from the project.	Section 6.6 Water Column Effects
		Cawthron Mussel Farm Plankton Report 2020 (Schedule I3)
		Guards Bay Ecological Assessment 2024 (Schedule D4)
		Project Coastal Ecological Assessment 2026 (Schedule D21)
Marine mammals	- Effects on marine mammals are expected to be no more than minor. - Mussel farms have been coexisting with marine mammals since the inception of the industry. - The site will be operated in accordance with the A+ Sustainable Management Framework and the MFA ECP thereby ensuring that all best practices are followed to minimise the chance of marine mammal interactions. - The site will be operated in accordance with an MMMP as set out in the proposed consent conditions.	Section 6.7 Marine Mammal Effects
		Marine Mammals Letter 2026 (Schedule D20)
		Project Coastal Ecological Assessment 2026 (Schedule D21)
		Marine Mammal Management Plan (Schedule E1) and Proposed Conditions (Schedule F)
Seabirds	- Effects on the endangered king shag are not anticipated. - Recent studies show that king shag have individual foraging preferences. Some prefer to forage in marine farms, and the birds frequently use marine farms as roosting sites for rest or to digest their food. - No adverse effects on other seabirds are anticipated.	Section 6.8 Seabird Effects
		Seabirds Letter 2026 (Schedule D19)
		Project Coastal Ecological Assessment 2026 (Schedule D21)
Biosecurity	- There will be no more than minor biosecurity effects. - Any residual effects will be mitigated to the extent practical by the applicant operating biosecurity best practices set out in the A+ Sustainable Management Framework. - The site will be operated in accordance with a BMP as set out in the proposed consent conditions.	Section 6.10 Biosecurity Effects
		Project Coastal Ecological Assessment 2026 (Schedule D21)
		Biosecurity Management Plan (Schedule E3) and Proposed Conditions (Schedule F)
Fisheries resources	- The farms are sited over soft sediment which does not comprise important habitat for fish. - Mussel farming can provide benefits for pelagic and benthic species of both conservation and commercial importance.	Section 6.10 Fisheries Resources Effects
		Project Coastal Ecological Assessment 2026 (Schedule D21)
Landscape, and	Guards Bay specific landscape and natural character effects	Section 8.6 Landscape and

Effect	Assessment	References
natural character	are set out in detail in Section 8.6 below. In summary the landscape and natural character effects are considered no more than minor and appropriate in the context of the Guards Bay setting.	Natural Character Effects Guards Bay Landscape Assessment 2026 (Schedule D5)
Amenity	- Guards Bay specific visual amenity effects are set out in detail in Section 8.6 below. - In summary, visual effects will be low. - The main noise generated is during harvest, which occurs infrequently and over relatively short periods. There are no dwellings in the vicinity, and noise will be within the limits set out in the MEP. - Industry best management practices will be followed to minimise amenity effects.	Section 6.12 Amenity Effects Guards Bay Landscape Assessment 2026 (Schedule D5)
Security of Structures and Debris	- A condition requiring cleaning of beach debris is also proposed. - Taken overall, with the best management practices in place, the farm will be operated with structural integrity, and effects from debris will be no more than minor.	Section 6.13 Security of Structures and Debris
Navigation, Public Access and Recreation	- There will be no more than minor navigation effects. The farm will be installed and marked in a manner that enables safe navigation through and around the farm. - The farm blocks are sited in a manner that allows for navigation to and along the shore. Public access to the sites will still be enabled. - Effects on fishing are not anticipated but will be appropriately assessed by MPI. Navigation through and around the farm for fishing vessels will be enabled. Effects on fisheries resources will be no more than minor and, in some respects, positive. - Any residual effects will be mitigated to the extent practical by the applicant operating industry best practices. - Mussel farms are known to have positive effects for recreational fishing. - Being 3.5km away, the marine farm will not be visible from the Titirangi Farm Park except from elevated distant views. It is unlikely for there to be any effect on tourism as a result of the application.	Section 6.14 Navigation and Public Access Effects Section 6.15 Recreation and Tourism (including Fishing) Effects
Cultural Effects	- It is for iwi to determine cultural effects. - The site is not within a formal mātaihai, taiāpure or rāhui area however Ngāti Kuia have applied for a mātaihai in an area that includes Guards Bay. It is subject to applications under MACAA. - During engagement with pou taiao cumulative ecological and cultural effects were raised as the key concern noting that cultural values are intrinsically linked to ecological health.	Section 6.16 Cultural Effects

Effect	Assessment	References
	The applicant anticipates ongoing engagement with iwi on this application and the resulting activity.	
Customary Fishing Effects	It is for iwi to determine effects on customary fishing however the EclA supports the applicants' initial assessment (set out in Section 8.7) that effects on customary fishing will be no more than minor.	Section 8.7 Customary Fishing Effects
Historic heritage	The historic heritage effects are considered no more than minor.	Section 6.18 Historic Heritage Effects
Cumulative	- The cumulative ecological effects will be negligible in magnitude and very low overall. - The cumulative landscape, natural character and visual effects will be neutral. - The application generally aligns with the policies that guide the identification of new space (AMAs) in the MEP.	Section 6.19 Cumulative Effects Guards Bay Landscape Assessment 2026 (Schedule D5) Project Coastal Ecological Assessment 2026 (Schedule D21)

Table 31 Guards Bay effects summary

8.5 Seabed Effects

Two assessments of the seabed have been recently carried out. The first by Davidson Environmental in 2021¹⁸³ to inform the applicant's submissions to Variation 1 to the MEP to provide an AMA which included a 28.8 hectare extension to the parent farm 8164, and the second carried out by Robertson Environmental in 2024¹⁸⁴ of the remaining portion to inform the application to be a Listed Project in the FTAA. Those assessments are provided in **Schedule D4**.

Davidson's assessment (the 28.8 hectare area adjacent to the existing farm) comprised a seabed characterisation component involving sonar imaging, drop camera images, and data processing and interpretation. A desktop review considered two historical reports found in relation to the parent farm 8164.

Robertson's assessment summarised the findings of the Davidson assessment and added the results of sonar survey, ground-truthing with images, and data processing and interpretation for the additional 43 hectare seaward area. Further desktop review considered known datasets on landforms, marine farms (MDC's Smart Maps database), climate, and topography of the site the use of aerial photographs, and to a lesser extent the New Zealand Land Cover Database version five (LCDB5).

Robertson provided a map of the site showing the survey areas including the existing farm 8164 with its growing structures exclusion area on the inshore edge of that consent. Note that farm is not part of this FTAA application.

¹⁸³ Davidson, R.J.; Richards, L.A.; Scott-Simmonds, T. *Biological report for an extension to marine farm 8164 in Hikoekoea Bay, Guards Bay, outer Pelorus Sound*. (Davidson Environmental Ltd 2021) (**Schedule D3**).

¹⁸⁴ Robertson, B. *Proposed 8164 Extension, Guards Bay Coastal Ecological Impact Assessment*. (Robertson Environmental 2024) (**Schedule D4**).

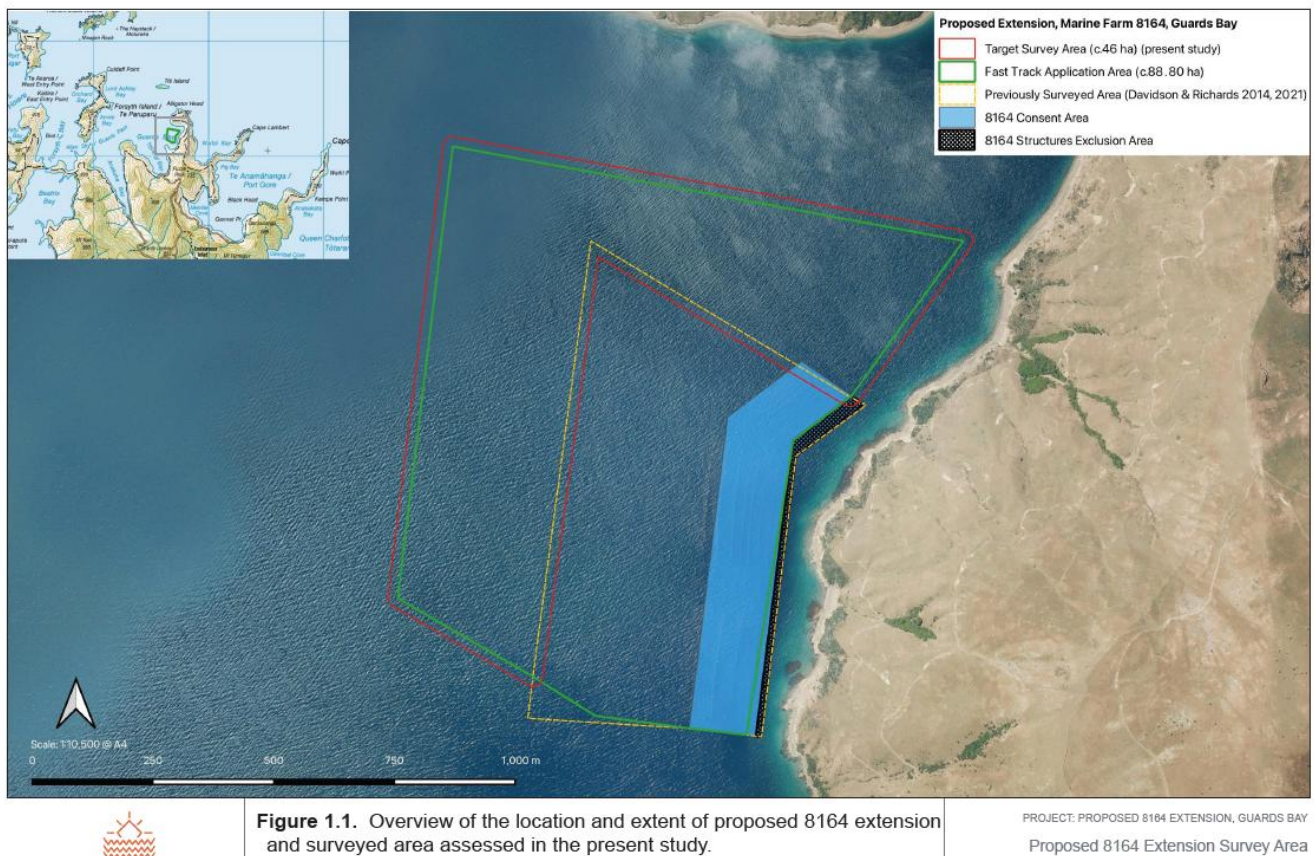


Figure 1.1. Overview of the location and extent of proposed 8164 extension and surveyed area assessed in the present study.

PROJECT: PROPOSED 8164 EXTENSION, GUARDS BAY
Proposed 8164 Extension Survey Area

Figure 28 Ecological surveys of Guards Bay application site

Robertson summarised the findings of the 2021 Davidson assessment:

- The area is delineated by two primary subtidal regions, the relatively shallow nearshore reef (inshore of the proposed consent) and the deeper offshore zone dominated by soft sediment (within the proposed consent).
- The inshore area is characterised by relatively steeply sloping bedrock, boulders, and cobbles, likely extending from shore to around 5-10 metre depths.
- The majority of the remaining area is characterised by soft sediment habitat, including a narrow band of muddy sand that borders the inshore boulder/cobble habitat and then seaward of that muddy sand, the sediments become featureless and predominantly consist of muddy sediments.
- Epibenthic macrofaunal species potentially present (at relatively low densities) in soft sediments beyond the inshore reef habitat include scavenging whelks, cushion stars, anemones, horse mussels, tubeworms, sponges, and crabs. No macroinvertebrate species listed as TAR or regionally significant indigenous species have been observed in the soft sediment adjacent to the site.

Davidson provided a habitat map showing drop camera stations and areas of soft substrate at Figure 11 which is replicated here.

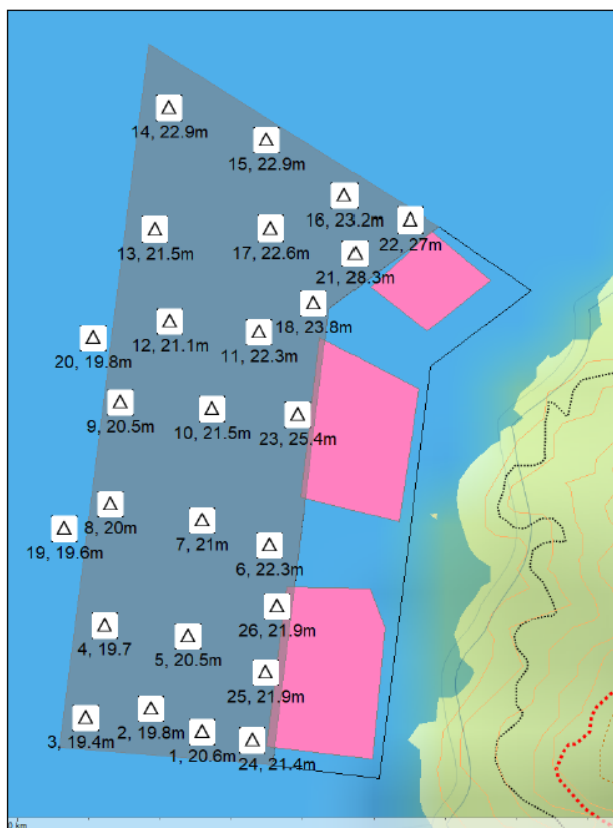


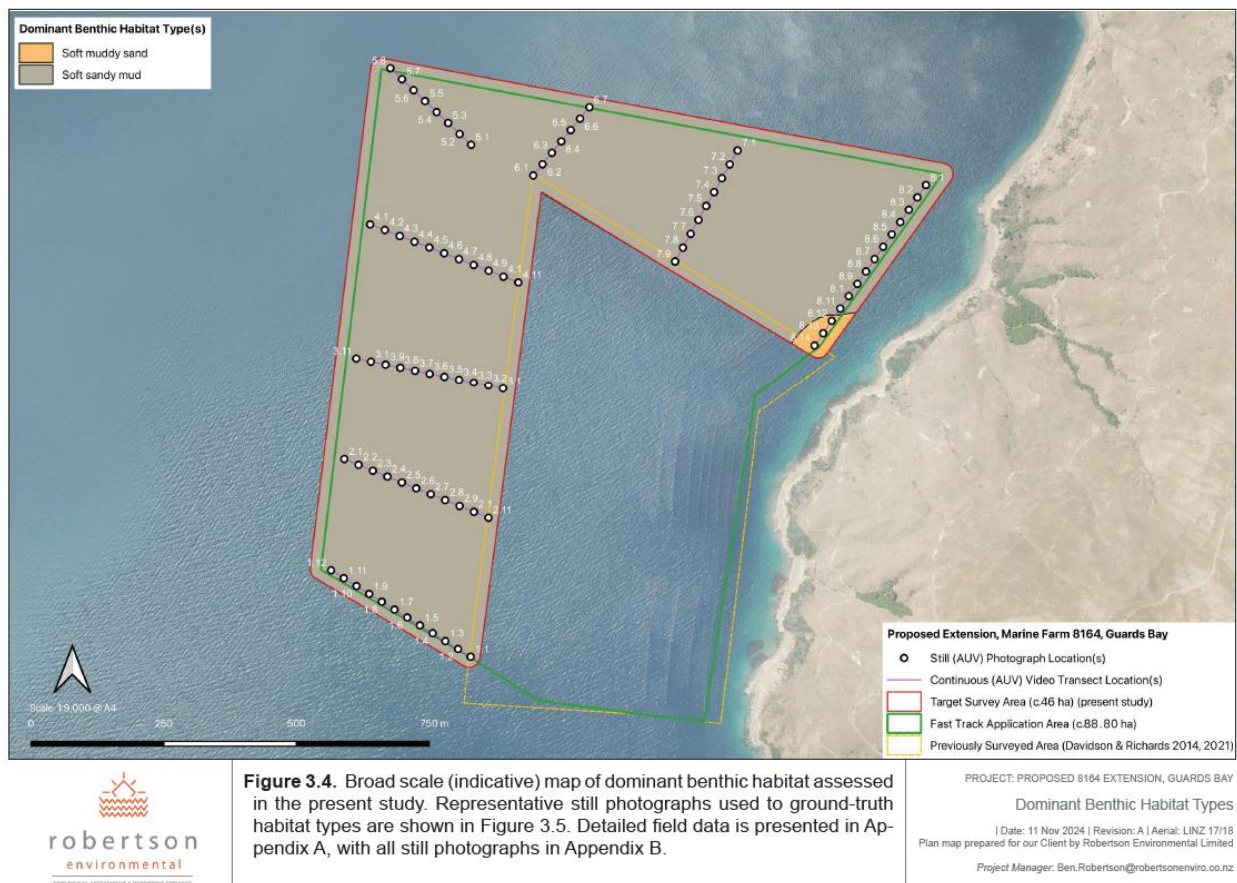
Figure 11. Drop camera stations in the consent (open triangles = soft substrate, filled circles = rocky substrate), consent area (grey), surface structures (pink). Numbers are the photo number and water depth (m).

Figure 29 Guards Bay seabed habitat map 2021

Robertson found the following:

- The benthic habitat below the proposed consent is dominated by soft sandy mud habitat, covering over 95% of the area.
- No reef habitats were recorded within 20 metres of the site boundaries.
- The abundance of biogenic habitat is expected to be very low, in keeping with the typically low diversity found in sheltered, soft bottom habitats in the Marlborough Sounds.
- No biogenic habitat was observed in video footage or still imagery collected from the seabed within the site.
- Epibenthic macrofaunal species observed at relatively low densities included scallops and finger sponges. Additionally, small holes—presumably created by infaunal organisms and fish—were visible at the sediment surface throughout much of the surveyed area. Occasional, localised patches of maldanid worm tubes were also noted.
- Based on side scan sonar imagery, reef habitat is likely present inshore of the site.
- The ecological value of the soft sediment habitat within and surrounding the site is considered to be **low**, given the low diversity, species richness, and abundance, as well as the absence of TAR or regionally significant species.
- The site is not regionally or nationally significant, and there are no mapped ESMS in close proximity.

Robertson provided a seabed habitat map of the 43 hectare seaward area to complement the Davidson map set out in Figure 29 above.



8.6 Landscape and Natural Character Effects

8.6.1 Introduction

A landscape, visual and natural character assessment was carried out by Brad Coombs of Isthmus Group in 2026¹⁸⁵ and is provided in **Schedule D5**. Josh Hunt of Narrative Landscape has peer reviewed the assessment as set out in the Joint Memorandum provided as **Schedule D25**. The landscape assessment followed the NZILA guidelines – *Te Tangi a te Manu*, considering physical, associative and perceptual attributes. Natural character was assessed with reference to the *Te Tangi a te Manu* definition and MEP Policy 7.1., considering abiotic, biotic and experiential attributes.

The assessment was informed by a site visit undertaken in December 2025.



Figure 31 Approaching the existing farm at Viewpoint 4

8.6.2 Existing Landscape and Natural Character

Coombs describes Guards Bay as a moderately large, northwest facing bay in the Outer Sounds on the margins of Te Hoiere/Pelorus Sound. It comprises Titirangi Bay to the north and Hīkoekoeā Bay to the south separated visually and physically by a headland. The proposed farm is centrally located in Hīkoekoeā Bay, adjacent to an established 12 hectare mussel farm.

The MEP identifies the Outer Sounds Landscape as an ONL and in a nested sequence of smaller areas of ONL, including Guards Bay, within the Forsyth Landscape. The assessment identifies the values as relating principally to the bold landscape and seascape, exposed headlands and rocky shores, indigenous vegetation and forested ridges, natural values and associated experiential qualities. The proposal is not within an area identified as having ONC values.

The assessment describes modifications in the Guards Bay setting. The enclosing slopes are predominantly managed pasture, with fragmented regenerating native vegetation in gullies, areas of indigenous vegetation on outer headlands and upper slopes, and indigenous forest on upper ridgelines and peaks. Farm tracks, fencing, a small hut, moorings, roading, an airstrip, buildings and campground facilities in Titirangi Bay, and the existing marine farm contribute to an established working rural and marine farming character.

¹⁸⁵ Coombs, B., Adam, A. (2026). Marlborough Sounds Aquaculture Project – Guards Bay: Landscape, Natural Character and Visual Amenity Assessment. Isthmus Group Limited (**Schedule D5**).

The assessment describes Hīkoekoeā Bay as a recessed part of the broader Guards Bay setting. Although the proposal will occupy a considerable proportion of Hīkoekoeā Bay, it will occupy a relatively small proportion of the wider bay between Alligator Head and Tawaroa Point and will remain 'subservient' to the scale of the enclosing headlands and ridgelines.

8.6.3 Landscape Character Effects

The assessment considers physical, perceptual and associative landscape character. The assessment finds that:

- *'While the proposal will lead to a localised reduction in naturalness within the immediate site, primarily due to seabed disturbance and occupation of the water column and water surface, the overall naturalness of Guards Bay will remain largely unchanged, as the development is viewed within the context of a large-scale enclosing, modified working rural landscape.'*
- *'The scale of the surrounding landforms and seascape, combined with the visually recessive nature of the mussel nursery farm, will ensure that the vividness and memorability of the landscape setting are maintained.'*
- *'The wider landscape context, including the surrounding landforms and forested ridgelines, will remain unaffected by the proposal.'*

Landscape character effects are assessed as very low.

The assessment considers effects on the ONL values set out in the MEP. It finds that the farm will not have adverse effects on these values for the following reasons:

- *'The Hīkoekoeā Bay site and the mussel farm proposal are relatively small and recessed features surrounded by broad scale seascapes and landscapes, which already accommodate productive farming on the sea and the land.'*
- *'Mussel farms have very limited physical effects which are not generally experienced beyond the immediate site of the farm itself.'*
- *'The ONL values are broad and accommodating of the ongoing use of the waters for a mussel nursery farm.'*
- *'The outer Te Hoiere / Pelorus Sound waters accommodate a range of existing marine farm developments which are integrated into the landscape and natural character values of the Sounds and are not necessarily incompatible with outstanding landscape values.'*

8.6.4 Visual Amenity Effects

The assessment recognises that the existing mussel farm infrastructure offers a marine farming character to the bay which complements the land-based farming activities. It sets out a number of environmental and observational factors that influence the visibility of a marine farm and considers water based, land based and aerial viewpoints.

It finds that:

- *'Visible infrastructure is limited to above-water infrastructure, which is limited to floating lines of buoys, cardinal buoys and navigational safety lighting;*
- *'The mussel nursery lines are submerged and are not generally visible other than right on top of them;*
- *'From water-based viewpoints, the marine farm will be visually recessive, and set against a dominant landforms, and will be typically only discernible within approximately 2 km, generally within the line between Alligator Head and Tawaroa Point or by observers actively looking for it;*

- *Land-based viewing opportunities are minimal, and where available, views occur at a considerable distance, with the mussel nursery farm forming a barely perceptible element within the wider landscape; and*
- *From the air, the farm will appear as a faint, low-contrast pattern on the water surface, remaining subordinate to the broader marine farming context of the Marlborough Sounds and the broad scale enclosing landscape'.*

Visual amenity effects are assessed as low.

8.6.5 Natural Character Effects

Coombs assesses natural character through biotic, abiotic and experiential attributes. The context of the assessment is that while the surrounding landform is relatively remote it is modified and characterised by working farming elements including the existing marine farm.

The assessment of biotic effects was informed by the Robertson EclA, particularly its findings regarding the soft sediment seabed and that overall, the biotic attributes reflect a modified but naturally low-complexity marine ecosystem with limited ecological distinctiveness at the site scale. The EclA also informed the abiotic attributes which reflect a relatively homogeneous and typical coastal marine environment of the outer Pelorus Sound, with low natural physical variability at the site scale. Experiential attributes were considered from the water, the land and the air.

The assessment finds that:

- *'The seafloor conditions beneath the site are suitable for consideration of marine farming activities;*
- *Installation of anchors will cause some disturbance to the seafloor; however, sediments are expected to re-settle naturally around the structures;*
- *The proposal presents a low risk of entanglement for marine mammals;*
- *Potential impacts on King Shags are expected to be neutral;*
- *Continued and expanded marine farming within Guards Bay may enhance foraging and roosting opportunities for certain bird species;*
- *Overall ecological effects are assessed as no more than minor;*
- *The marine farm will be visually contained by the surrounding landform of Guards Bay, limiting wider visibility;*
- *The development will primarily be experienced from water-based viewpoints; and*
- *Conventional marine farming structures are generally visually recessive, particularly from a distance beyond 250m to 300m.'*

Natural character effects are assessed as low.

8.6.6 Cumulative Effects

The assessment considers cumulative effects to be limited to those effects experienced from a close distance to the farm. It considers the farm is unlikely to be experienced by travelling vessels as it is tucked into the broader scale of Guards Bay and the enclosing landform of Alligator Head.

The assessment finds that, *'given the recessed nature of Hikoekoeā Bay and the accommodating nature and scale of the surrounding landscape'* the cumulative effects are assessed as neutral.

8.6.7 Landscape and Natural Character Effects Conclusion

Overall, the assessment finds that the Outer Te Hoiere/Pelorus Sound and surrounding landscapes have an established productive character associated with both land based activities and marine farming. The Hikoekoeā Bay site includes an existing and valued mussel spat nursery, with its location suited to the sheltered, cool and well flushed conditions required for nursery operations. The site and surrounding landscape and seascape are predominantly productive, although areas of elevated natural character and landscape value occur, particularly at the broader scale within the Outer Sounds and Forsyth ONLs, which are characterised by bold landforms, natural vegetation, exposed headlands and rocky shorelines.

The assessment concludes that *'the Hikoekoeā Bay site within Guards Bay is a logical and accommodating site for an expanded mussel nursery farm and is appropriate in landscape, natural character and visual terms'*.

Overall, it is considered that the landscape, visual and natural character effects will be **no more than minor**.

8.7 Customary Fishing Effects

As set out in **Section 6.17** the applicant has undertaken an initial assessment of effects on customary fishing using the best available information as follows:

Existing customary use and values	Guards Bay is a bay within the Tītīrangi and Outer Sounds area and sits within the customary food gathering area/rohe moana of Te Taihu iwi.
	Ngāti Kuia have made an application for the broader area (encompassing Guards Bay and Anakoha Bay) to be designated as a mātaihai reserve. The applicants are supportive of this application. The application states: <i>"Relationship agreements (MoUs) have been developed with Omega Fisheries before the aquaculture settlement and with Sandfords and KS, recognising the importance of the area's resources."</i> ¹⁸⁶ Omega Fisheries is operated by the Redwoods.
	In the Statements of Association Ngāti Kuia describe the wider Tītīrangi / Te Hoiere landscape as an iconic settlement and mahinga kai area, linked to Matuahautere, Parororangi and Tītī Island, with pā, tauranga ika and enduring ahi kā.
	Tītīrangi is significant to Te Taihu iwi including as a recognised waka migration route.
	The association of wider Te Taihu iwi to Guards Bay may well be similar to Anamāhanga / Port Gore.
Nature of effects	The EclA finds that the farm structures may have positive benefits for fish, there are no TAR species present and the overall effect will be negligible to low.
	The nursery structures would exclude customary fishing from the seabed but customary fishing can continue in the water column between and around lines using small vessels, as occurs at existing mussel farms elsewhere in the Sounds.
	A recent MPI assessment for Outer Sounds farms indicated that for exposed, oceanic sites, the primary customary use is likely to be line fishing for pelagic and demersal finfish rather than intensive shellfish gathering in the farm footprint.
	The proposed 78.47 hectare farm footprint is small relative to the available customary fishing grounds in Guards Bay and adjacent coastal waters.
	There are four archaeological sites in the general vicinity with a shell midden located at the back of the beach inshore of the proposal.

¹⁸⁶<https://www.mpi.govt.nz/dmsdocument/71226-Application-for-a-mataihai-reserve-at-Guards-Bay-and-Anakoha-Bay-Marlborough-Sounds> (Page 14)

	Shellfish farming does not deplete target customary species, and recent science and MPI decisions recognise that mussel farms may enhance habitat and local fish abundance, which can in turn support customary harvest at farm margins.
Proposed management response	The proposed conditions can ensure that customary fishers can safely navigate through or alongside blocks and continue to access customary species in the area.

Table 32 Guards Bay customary fishing assessment

8.8 Proposed Conditions

Proposed consent conditions are set out in Schedule F. For Guards Bay they require that mussels larger than 40mm average may not be reseeded onto the site and mussels from the site must not be harvested direct to the factory. Conditions also require management of debris including participation in the MFA beach cleaning programme. Vessels must not transit within 200 metres of any king shag colony. The site must be operated in accordance with an MMMP and a BMP both of which are provided in **Schedule E**.

8.9 Conclusion

The Guards Bay application will provide 78.47 hectares of mussel nursery water space adjacent to farm 8164, which has consistently delivered above average spat retention since its installation in 1988. The site will provide valuable nursery space for industry partners to ensure year round product is available for the PHR factory, supporting plans to increase processing from 2,000 GWT to 4,000 GWT by 2030.

NZIER finds that the site will support 14,331 GWT of production, with an equivalent production value of \$23.6 million and annual potential export revenue of \$85.3 million. PHR will contribute \$10,000 per annum to community and restoration initiatives.

The potential environmental effects have been comprehensively assessed and are considered to be no more than minor. The EclA finds that cumulative ecological effects will be negligible in magnitude and very low overall. It is for iwi to determine cultural effects, however the initial assessment finds that effects on customary fishing will be no more than minor.

The site will be operated in accordance with industry best practice, and the proposed conditions provide appropriate mitigations including operation in accordance with the MMMP and the BMP. The proposed conditions also provide a placeholder for ongoing iwi engagement on effects on cultural values including mauri.

The Guards Bay application will expand high performing nursery space to boost sector productivity, increase factory production and enable climate adaptation and is consistent with the purpose of the FTAA.

Part 9 Hāpuku Rock

9.1 The Proposal

9.1.1 Overview

Clearwater Mussels Limited (Clearwater) is applying for resource consent to undertake mussel nursery activities using conventional longline structures at two sites totalling 28.03 hectares at Hāpuku Rock at the entrance to Admiralty Bay. The site location, site plan and layout plans are included in **Schedule A**.

The purpose is to undertake mussel nursery activities, including providing suitable growing conditions for spat from the newly developed Clearwater hatchery prior to seeding onto crop farms. This will enable significant productivity uplift for the numerous farms that Clearwater owns or manages for other industry members.

9.1.2 Location

The Hāpuku Rock area is bounded by Admiralty Bay to the southwest, D'Urville Island to the northwest and is open to Cook Strait to the northeast. It is also directly connected to Tasman Bay via French Pass. Other notable landmarks include the Trio and Rangitoto Islands to the north, and the Chetwode Islands to the northeast. The Outer Admiralty Bay area through to French Pass, Catherine Cove and Clay Point is extensive, covering more than 8,200 hectares¹⁸⁷

The application site is mid way along a 7km stretch of coastline that extends northeast from Camp Bay through to Clay Point. D'Urville Island's Catherine Cove lies approximately 5km to the northwest and the West Entry to Pelorus Sound is 6km to the southeast.

9.1.3 Site Characteristics for Shellfish Farming

With its proximity to Tasman Bay via French Pass and Cook Strait, the Hāpuku Rock application site sits within a high current confluence zone for two water bodies comprising differing environmental characteristics. While water temperatures are expected to be higher on average than sites located further east, research has identified that mixing zones where cooler, nutrient rich waters interact with warmer waters containing a broader range of phytoplankton species are often highly productive. Additionally, the Hāpuku Rock site lies within one of the fastest current regions in the Outer Sounds. These elevated current velocities ensure a consistent supply of seston, which is vital for Greenshell mussel growth and farm productivity.

Farm 8057, which lies at the centre of the two proposed application sites, was installed in 1995 and has been owned by Clearwater since 2007. During the 18 years of operation by Clearwater, farm 8057 has consistently delivered above average spat retention results and supported crop production throughout the Marlborough Sounds. Based on this historic mussel performance data, Clearwater believes extending the site will result in the creation of nationally significant mussel nursery water space. Mussel farming is well established in nearby Catherine Cove and Admiralty Bay.

As with the Guards Bay site, Hāpuku Rock is accessible for industry vessels in almost all weather conditions, as it only exposed to weather events from the northeast. The location offers excellent proximity to important crop growing areas such as Admiralty Bay, Port Ligar and Forsyth Bay.

¹⁸⁷ Conservatively calculated using [MDC Smartmaps](#) GIS tools.

The Robertson EclA in **Schedule D21** records the depth range as 15 to 45 metres.

9.1.4 Applicant

Clearwater is an intergenerational mussel farming business. Half owned by the Talley's Group, Clearwater operate their own farms, much of Talley's water space assets, plus hundreds of leased lines throughout Te Taihū. The company's founder, John Young, is widely known for playing an integral role in adapting the Japanese longline farming system for New Zealand conditions, a development that went on revolutionise the New Zealand industry. John, and the broader Clearwater team, are considered to be at forefront of innovation and farming practices within the New Zealand industry.

Today, Clearwater operates 12 vessels, employs 70 staff and produces more than 20,000 GWT for processing at the Talley's facilities in Renwick and Motueka. International market demand for the Talley's product range is strong, with FY25 setting a new record for the GWT of mussels harvested and processed.

In 2025, Clearwater began construction of New Zealand's second Greenshell mussel hatchery, with the project due for completion in 2027.

9.1.5 Activity Description

The application is to establish two areas of dedicated mussel nursery water space, located to the northeast (13.03 hectares) and southwest (15 hectares) of existing farm 8057. Spat sourced primarily from Te Hiku and hatcheries will be deployed at sizes of approximately 300 microns–10 mm and on-grown to a maximum shell length of about 50 mm, with most spat expected to be transferred to crop sites as final seed at around 50 mm.

The nursery site will comprise 43 conventional longline structures (screw anchors, warps, double backbones, floats and growing rope), with a total backbone length of 5,480 metres and dropper lengths typically 8–10 metres. Backbones may be surface or sub surface (to about 3 metres) to manage wave energy and blue mussel settlement, and line spacing has been increased from the industry norm of 20 metres to 27.14 metres to reflect the semi exposed nature of the site (partial exposure to north easterly conditions).

Orange mussel floats will be placed at the ends of each line and at the centre of the outside lines, with additional Aids to Navigation (including special marks and radar reflectors) under direction from the Harbourmaster, to ensure navigation safety. As with other mussel farms, the public will be able to fish, dive and tie up to the lines.

The farm will be operated in accordance with industry best practice, including the MFA ECP and A+. Consent conditions will include beach cleaning requirements and operation under a Biosecurity Management Plan and a Marine Mammal Management Plan.

9.1.6 Project Delivery

Clearwater is committed to commencing development of the site within 1 month of obtaining consent. Full development of the site will occur within 12 months. The first seed mussels would be ready for relocation from the site within 12 months. The NZIER economic assessment (**Schedule D22**) assumes that all lines will be producing seed by Year 3.

9.2 Benefits

9.2.1 Production Supported, Indicative Export Value and Jobs Created

The Hāpuku Rock application sites will support increased productivity for Clearwater's mussel operation including optimising its recent hatchery investment. As a dedicated nursery site, mussels will be relocated from the site prior to reaching harvestable sizes and on-grown at sites throughout the region. As no mussels will be harvested for processing directly from the site, the production volumes supported by spat reared at the site are provided in lieu of specific harvest estimates.

Assuming the Hāpuku Rock nursery water space is seeded with Te Hiku spat and the anticipated spat conversion ratio of 3:1 is achieved, the production supported equates to 3,063 GWT per annum, with an indicative export value of \$18 million and 34 FTE roles created. Under a potential future scenario where 100% hatchery spat is used, production supported increases to 12,765 GWT per annum, with an indicative export value of \$76 million (in 2026 dollars) and 143 FTE roles created.

Importantly, many of the FTE roles will be generated in provincial centres such as Havelock, Motueka and Blenheim, where the mussel industry plays a critical role in sustaining economic prosperity.

For the purposes of the NZIER economic assessment (**Schedule D22**), it was assumed that 80% of the total lines would be seeded with Te Hiku spat in Year 1, with this allocation reaching a steady state of 50% Te Hiku spat and 50% hatchery spat by Year 4. At a 50:50 ratio, the production supported equates to **7,914 GWT per annum**.

9.2.2 Economic Impacts

NZIER finds that, based on an average expected production supported of 7,914 GWT the equivalent **production value will be \$13.1 million**, and the **annual potential export revenue will be \$47.1 million**.

9.2.3 Climate Adaptation

The Outer Sounds are characterised by cooler waters year round, strong current velocities, and a direct hydrodynamic connection to Cook Strait. Cooler water temperatures help reduce stress in mussels, while strong currents provide a steady supply of food and aid in the dispersal of harmful algal blooms. The proximity to Cook Strait also enhances nutrient availability and helps buffer the area from land based impacts, such as flooding from rivers feeding into the Pelorus Sound. Locating critical nursery sites in these cooler, more productive Outer Sounds waters represents one of the most effective climate adaptation strategies available to the Te Taihu mussel industry.

9.2.4 Community and Environmental Contribution

If the application is successful, Clearwater proposes to donate \$10,000 per annum to the MFA CEF.

9.2.5 Strategic Relevance

The Hāpuku Rock application demonstrates strong alignment with the ADP by expanding high performing nursery space to boost sector productivity, and supporting climate adaptation through access to cooler Outer Sounds waters. With a hatchery under construction, Clearwater will soon be in a position to optimise the use of their best nursery water space and drive a productivity uplift within the mussel sector.

9.3 The Existing Environment

The Hāpuku Rock application site is set within the Marlborough Sounds High Amenity Landscape, and area of Outstanding Natural Features and Landscapes in the MEP. It is not within an area of High, Very High or Outstanding Natural Character. The site is located well away from any ESMS identified in the MEP. It sits within the Marlborough Sounds Important Bird Area and within the Admiralty Bay Dusky Dolphin Marine Mammal Distribution Area in the MEP.

An application for a contiguous 26 hectare mussel farm at the site was declined in 1995 due to public access and navigation effects. Those effects are anticipated to be **no more than minor** in the current application.



Figure 32 Hāpuku Rock MEP Overlays

The Hāpuku Rock landscape assessment provided in **Schedule D10** of this application describes Hāpuku Rock as a relatively open outer bay setting in the eastern waters of Admiralty Bay. At the wider scale, the environment remains open coastal waters, steep coastal landforms, rocky shoreline edges and a clear land–sea relationship. At the more local scale the receiving environment is more modified, with pastoral grassland, forestry and wilding pines, regenerating vegetation, access tracks and road, powerline infrastructure, vessel movement and the existing marine farm.

Access to the eastern shoreline of Admiralty Bay and the Pelorus Sound settlements of Port Ligar and Bulwer is via the Te Towaka Port Ligar Road. The coastline adjacent to the application sites is privately held farmland and not accessible by road.

The landscape assessment also details recreational activity. Admiralty Bay and the wider Outer Sounds are used

for boating, fishing, diving and other coastal recreation and the area is important for coastal movement between the western coastline and the Sounds, however recreational users are more likely to experience Hāpuku Rock 'as part of a wider Outer Admiralty Bay journey' rather than it being a destination itself.

The Robertson EclA in **Schedule D21** records the ecological value of the Site ZOI as low and characterised by widespread, low complexity soft sediment characteristic of sheltered Marlborough Sounds environments and no reef, biogenic habitat or other high value species within the consent footprint. The Project ZOI has moderate ecological value as an area inshore of the farm comprises structurally diverse hard substrate and shell habitat with greater complexity and ecological heterogeneity.

Admiralty Bay is recognised as important habitat for dusky dolphin.

All other ecological values are similar to those at each of the sites, and summarised in **Section 9.4**

The Marlborough Sounds Cruising Guide notes a history of sheep farming, undesirable anchorage and an exposed coastline with outlying rock hazards. There are no known tourism operators in the vicinity of Hāpuku Rock.

There are no MEP mapped heritage sites or heritage trees and no archaeological sites listed on the ArchSite in the vicinity of the proposed farm.

9.4 Site Specific Effects Summary

An overview of effects with applicable references is provided in Table 33 below. Site specific effects that warrant further detail are set out in the following subsections.

Effect	Assessment	References
Positive effects	The proposal will create a range of economic, social, cultural and ecosystem benefits.	Part 5 Project Benefits NZIER Economic Assessment (Schedule D22) Project Coastal Ecological Assessment 2026 (Schedule D21)
Seabed	- Site specific seabed effects are set out in detail in Section 9.5 below. - In summary, as the proposed site layout avoids areas recorded as reef and biogenic habitat, the seabed is appropriate for mussel farming, and the seabed effects are considered to be no more than minor.	Section 9.5 Seabed Effects Hāpuku Rock Ecological Evidence and Assessment 2021 (Schedule D9) Project Coastal Ecological Assessment 2026 (Schedule D21)
Water column	- There will be negligible water column effects. Typically, little if any effects are detectable beyond the boundaries of the farm and the proposed site is in a well flushed environment. - The effects of mussel farms are relatively insignificant compared to other terrestrial and regional oceanographic drivers. It is not anticipated that there would be any adverse cumulative water column effects from the project.	Section 6.6 Water Column Effects Cawthron Mussel Farm Plankton Report 2020 (Schedule I3) Hāpuku Rock Ecological Evidence and Assessment 2021 (Schedule D9) Project Coastal Ecological Assessment 2026 (Schedule D21)

Effect	Assessment	References
Marine mammals	- Site specific marine mammal effects are set out in detail in Section 9.6 below. - Mussel farms have been coexisting with marine mammals since the inception of the industry. - The site will be operated in accordance with the A+ Sustainable Management Framework and the MFA ECP thereby ensuring that all best practices are followed to minimise the chance of marine mammal interactions. - The site will be operated in accordance with an MMMP as set out in the proposed consent conditions. - The applicant has proposed to contribute to a research programme to increase understanding of dusky dolphin presence and behaviour. - Overall marine mammal effects are considered to be no more than minor, with the remaining uncertainty in relation to dusky dolphins categorised as up to medium and proposed to be addressed via the research programme.	Section 9.6 Marine Mammal Effects
		Marine Mammals Letter 2026 (Schedule D20)
		Project Coastal Ecological Assessment 2026 (Schedule D21)
		Marine Mammal Management Plan (Schedule E1) and Proposed Conditions (Schedule F)
Seabirds	- Effects on the endangered king shag are not anticipated. - Recent studies show that king shag have individual foraging preferences. Some prefer to forage in marine farms, and the birds frequently use marine farms as roosting sites for rest or to digest their food. - No adverse effects on other seabirds are anticipated.	Section 6.8 Seabird Effects
		Seabirds Letter 2026 (Schedule D19)
		Project Coastal Ecological Assessment 2026 (Schedule D21)
Biosecurity	- There will be no more than minor biosecurity effects. - Any residual effects will be mitigated to the extent practical by the applicant operating biosecurity best practices set out in the A+ Sustainable Management Framework. - The site will be operated in accordance with a BMP as set out in the proposed consent conditions.	Section 6.10 Biosecurity Effects
		Project Coastal Ecological Assessment 2026 (Schedule D21)
		Biosecurity Management Plan (Schedule E3) and Proposed Conditions (Schedule F)
Fisheries resources	- The farms are sited over soft sediment which does not comprise important habitat for fish. - Mussel farming can provide benefits for pelagic and benthic species of both conservation and commercial importance.	Section 6.10 Fisheries Resources Effects
		Project Coastal Ecological Assessment 2026 (Schedule D21)
Landscape, and natural character	- Hāpuku Rock specific landscape and natural character effects are set out in detail in Section 9.7 below. - In summary the landscape and natural character effects are considered no more than minor and appropriate in the context of the Hāpuku Rock setting.	Section 9.7 Landscape and Natural Character Effects
		Hāpuku Rock Landscape Assessment 2026 (Schedule D10)
Amenity	- Hāpuku Rock specific visual amenity effects are set out in detail in Section 9.7 below. - In summary, visual effects will be low at most, with most viewing audiences experiencing very low adverse effects. - The main noise generated is during harvest, which occurs infrequently and over relatively short periods. There are no	Section 6.12 Amenity Effects
		Hāpuku Rock Landscape Assessment 2026 (Schedule D10)

Effect	Assessment	References
	dwellings in the vicinity, and noise will be within the limits set out in the MEP. Industry best management practices will be followed to minimise amenity effects.	
Security of Structures and Debris	- A condition requiring cleaning of beach debris is also proposed. - Taken overall, with the best management practices in place, the farm will be operated with structural integrity, and effects from debris will be no more than minor.	Section 6.13 Security of Structures and Debris
Navigation, Public Access and Recreation	- There will be no more than minor navigation effects. The farm will be installed and marked in a manner that enables safe navigation through and around the farm. - The farm blocks are sited in a manner that allows for navigation to and along the shore. Public access to the sites will still be enabled. - Effects on fishing are not anticipated but will be appropriately assessed by MPI. Navigation through and around the farm for fishing vessels will be enabled. Effects on fisheries resources will be no more than minor and, in some respects, positive. - Any residual effects will be mitigated to the extent practical by the applicant operating industry best practices. - Mussel farms are known to have positive effects for recreational fishing.	Section 6.14 Navigation and Public Access Effects
		Section 6.15 Recreation and Tourism (including Fishing) Effects
Cultural Effects	- It is for iwi to determine cultural effects. - The site is not within a formal mātaihai, taiāpure or rāhui area. It is subject to applications under MACAA. - During engagement with pou taiao cumulative ecological and cultural effects were raised as the key concern noting that cultural values are intrinsically linked to ecological health. - The applicant anticipates ongoing engagement with iwi on this application and the resulting activity.	Section 6.16 Cultural Effects
Customary Fishing Effects	It is for iwi to determine effects on customary fishing however the EclA supports the applicants' initial assessment (set out in Section 9.8) that effects on customary fishing will be no more than minor.	Section 9.8 Customary Fishing Effects
Historic heritage	The historic heritage effects are considered no more than minor.	Section 6.18 Historic Heritage Effects
Cumulative	- The cumulative ecological effects will be negligible in magnitude and very low overall. - The cumulative landscape, natural character and visual effects will be no more than minor. - The application generally aligns with the policies that guide the identification of new space (AMAs) in the MEP.	Section 6.19 Cumulative Effects
		Hāpuku Rock Landscape Assessment 2026 (Schedule D10)
		Project Coastal Ecological Assessment 2026 (Schedule D21)

Table 33 Hāpuku Rock effects summary

9.5 Seabed Effects

Assessments of the seabed were carried out by Davidson Environmental in 2014 and 2021¹⁸⁸ to inform the applicant's submissions to Variation 1 to the MEP to provide two AMAs at the application site. The 2021 assessment incorporated the data from the 2014 assessment and is provided in **Schedule D9**. It is prefaced by evidence that Rob Davidson gave to the MEP hearings panel to summarise the findings.

Of note, the Davidson assessments found an area of cobble etc on the northern inshore corner of the northern site of the proposed AMAs. The site plan in this application has been adjusted to avoid this area.

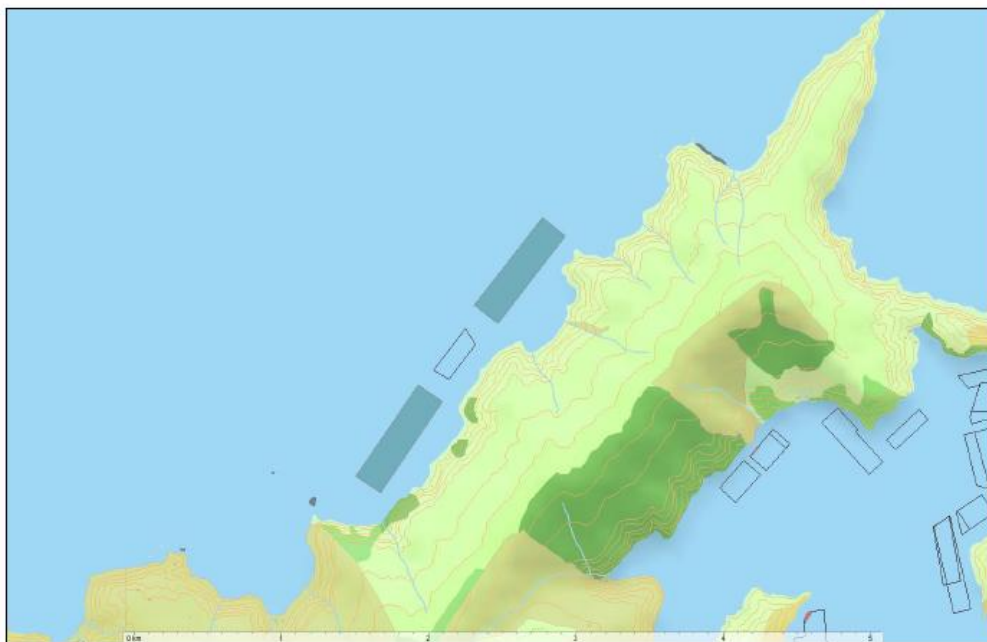


Figure 33 Areas assessed for consent in the Davidson surveys

The 2014 Davidson assessment comprised a seabed characterisation component involving sonar imaging, drop camera images, benthic grab samples, data processing and interpretation. The 2021 survey gathered further sonar survey and drop camera data.

Davidson recorded the following ecological observations at the application site:

- Both proposed sites are located over a deep mud and mud/shell substrata.
- As the local marine environment is influenced by elevated wave energy and tidal currents compared to areas in sheltered Marlborough Sounds bays and inner Admiralty Bay, lower levels of farming impact are expected compared to mussel farms more sheltered locations.
- Most of the proposed sites were located over deep gently sloping silt and clay (mud). The infaunal communities recorded from these habitats were uniform and supported a range of species considered typical of mud habitats.
- An area close to the inshore northeastern edge supported coarser material in the form of natural shell (broken and dead whole shell) and cobbles. This supported a greater range of species compared to deep mud.
- No surface dwelling biological communities of particular interest such as red algae or horse mussels

¹⁸⁸ Davidson, R.J.; Richards, L.A.; Scott-Simmonds, T. 2021. *Ecological report for two proposed marine farm sites located near Hāpuku Rock, Admiralty Bay, Marlborough Sounds*. (Davidson Environmental Ltd 2021) (**Schedule D9**).

were recorded. No known species or habitats likely to be considered ecologically significant were observed from within the proposal area.

- Sulphide levels from the existing mussel farm, the proposal sites and the wider area were low and consistent with a low nutrient environment. It is likely the addition of new backbones would produce a comparable result (i.e. low levels of sulphide).
- Table 4 (page 33) of the assessment lists known reef, biogenic habitats and regionally significant species within the proposed sites.
- The amended site layouts now exclude the areas of coarser habitat and no other NESMA criteria were triggered in the survey.

Davidson provided a map at Figure 2 showing the recommended growing structures exclusion area which has been subsequently removed entirely from the area of this application.



Figure 34 Recommended structures exclusion area (in black)

Davidson's evidence supports the conclusion that:

- Overall, the two proposed sites are located over a deep mud and mud/shell substrata, with no surface dwelling biological communities of particular interest observed.
- The infaunal communities were uniform and supported a range of species considered typical of mud habitats.
- Although hard substratum in the form of small cobbles was recorded within the northern inshore edge of the northern site, the amended site plan ensures this area is avoided.
- In that respect, no monitoring is suggested.

Seabed effects are expected to reverse in 5 to 11 years after the farm is removed.¹⁸⁹

In summary, as the proposed site layout avoids the areas recorded as comprising rocky substrata, the seabed is appropriate for mussel farming, and the seabed effects are considered to be **no more than minor**.

9.6 Marine Mammal Effects

9.6.1 Introduction

Admiralty Bay is regarded as an important seasonal foraging habitat for dusky dolphins where individuals that breed in summer in deep waters off Kaikoura, and elsewhere, travel to the shallow enclosed waters of the bay to capitalise on nearshore foraging opportunities associated with concentrations of small planktivorous fish such as pilchard, yellow eyed mullet, anchovy and sprat.

In recognition of this a separate marine mammal assessment was undertaken by Helen McConnell at SLR¹⁹⁰. This assessment is provided in **Schedule D11**.

McConnell's report drew on an earlier report prepared for Clearwater by Dr Deanna Clement of the Cawthron Institute¹⁹¹ as well as a suite of research carried out by students of Texas A&M University¹⁹² between 1998 and 2024.

The assessment found that the effects on all marine mammals except dusky dolphins would range from net gain, through negligible to low at most. Because the presence of dusky dolphins in Admiralty Bay is decreasing and foraging behaviour has changed, the effects on dusky dolphin might be medium for behavioural and thus cumulative effects. While the assessment recognised the causes of the behavioural changes remain unknown and could be related to human and non-human related habitat changes, a marine mammal monitoring programme was recommended.

Clearwater considers that, instead of discrete farm based monitoring, resource would be better spent on a broader research programme which could provide meaningful insight into dusky dolphin behaviour within the changing environment of Admiralty Bay. This proposal is discussed further in **Section 9.6.6**.

9.6.2 Marine Mammals in Admiralty Bay

Admiralty is the best studied area in the Marlborough Sounds for marine mammals. While 16 marine mammal species are known to occur in the wider area, only five species regularly visit Admiralty Bay and its immediate surrounds, New Zealand fur seals, bottlenose dolphins, dusky dolphins, common dolphins and killer whales. Southern right whales and humpback whales may have a seasonal presence over winter and spring. While Admiralty Bay caters for only 6-9% of the Kaikoura population of dusky dolphins, or approximately 2–4% of the

¹⁸⁹ Davidson, R.J., Scrimgeour, G.J., Richards, L.A. and Locky, D., 2024. Multi-spatial and temporal assessments of impacts and recovery of epibenthic species and habitats under mussel farms in the Marlborough Sounds, New Zealand. *Journal of Shellfish Research*, 43(1), pp.15-28. <https://www.researchgate.net/publication/389554576>

¹⁹⁰ McConnell, H., *Establishment of Hāpuku Rock Marine Farms: Assessment of Effects on Marine Mammals* (SLR Consulting, Project No 840.030156.00001, 2026) (**Schedule D11**).

¹⁹¹ Clement, D., Elvines, D. 2015. Assessment of potential environmental effects on marine mammals: mussel farming application for Admiralty Bay. Prepared for Property and Land Management Services Ltd. Cawthron Report No. 2750. 27p. plus appendices.

¹⁹² Particularly Markowitz (2004), Pearson (2008), Pearson (2009), Pearson et al (2012), Piwetz et al (2013), Piwetz et al (2024) and Srinivasan et al (2012).

wider New Zealand population of some 30,000 dusky dolphins it constitutes important foraging habitat for dusky dolphins, and possibly also for common dolphins.

McConnell provides a table of ecological considerations for each species considered to have a likely or possible presence in the project area (Table 2 of **Schedule D11**), including their status under Policy 11(a) and 11(b) of the NZCPS. Of the species identified, bottlenose dolphins, killer whales, humpback whales and southern right whales qualify under Policy 11(a), the remainder, including dusky dolphins, do not.

The International Union for Conservation of Nature has identified the Outer Sounds and Cook Strait as an Important Marine Mammal Area, although this does not confer statutory status. Environment Court decisions W36/2006 and W027/2009 recognised Admiralty Bay and Current Basin as significant habitat for dusky dolphins.

9.6.3 Dusky Dolphins in Admiralty Bay

Winter abundance in Admiralty Bay has been assessed by several researchers over time. Total abundance has fluctuated, with an apparent decline since 2003:

- From 1998 to 2004, total population abundance in winter was estimated at 711 dolphins, with 220 dolphins present on a weekly basis;
- A similar total abundance was calculated for the 2005 and 2006 seasons, but weekly abundance was lower, at 105 in 2005 and 144 in 2006;
- A higher winter abundance was reported in 2011/12, but encounter rates, group sizes and resight rates declined, suggesting that although more dolphins were moving through Admiralty Bay, fewer were remaining to feed;
- Consistent with this, of the 343 individuals using Admiralty Bay from spring 2011 to autumn 2014, only 25% were observed multiple times across seasons and years and 52% were rare visitors, sighted only once across the three year study period; and
- Taken together, the research demonstrates an overall decline in encounter rates, mean group sizes, individual resight rates and the proportion of time spent foraging between 1998 and 2012.
- Despite the declines, dusky dolphins continue to be observed in all parts of Admiralty Bay, including both Inner and Outer Admiralty Bay.

Conversely, dusky dolphin presence in Queen Charlotte Sound increased from 1995 to 2002, and again from 2012 to 2014.

Evidence of a shift in the primary foraging strategies used by dusky dolphins in Admiralty Bay has also emerged from coordinated prey ball herding to increased time foraging individually. Interestingly, mussel farms may not be the cause of some of observed changes in behaviour. Extensive research was undertaken in Admiralty Bay in 2005-2006, the results of which were published in a PhD Thesis.¹⁹³ That thesis stated:

- *'Results regarding the influence of mussel farms on dusky dolphin fission-fusion dynamics were unexpected. Specifically, none of the alternative hypotheses regarding mussel farms were supported. Contrary to my prediction, party size was not negatively related to mussel farms. Additionally, party fission and fusion rates, foraging, and traveling displayed opposite relationships with mussel farms than predicted. Foraging showed a positive instead of negative relationship with mussel farms, while traveling showed a negative instead of positive relationship with*

¹⁹³ Pearson, H.C., 2008. *Fission-fusion sociality in dusky dolphins (Lagenorhynchus obscurus), with comparisons to other dolphins and great apes*. Texas A&M University.

mussel farms. Additionally, mussel farms were associated with an increased rate of party fusion but had no effect on rate of party fission'.

Further research was undertaken in 2011 and 2012 but only recently published.¹⁹⁴ In that study similar observations were made:

- *'Dusky dolphins utilised defined patches within Admiralty Bay in different ways. Within the NMF [near marine farm] patch, dolphins were more likely to be foraging than engaging in other behaviours, and within the NS [near shore] patch, dolphins were more likely to be travelling and less likely to be foraging. Within the NMF patch, dolphin swimming speed and linearity were predicted to be lower than within the NS patch, and reorientation rate was predicted to be higher than within the NS patch. Reduced swimming speed along the horizontal plane of the water is likely related to the increased foraging and diving activity in the vertical plane. Increased reorientation rate may also relate to foraging activity or movement around obstacles suspended in the water column (i.e. mussel farm ropes within the NMF patch). Within the NS patch, dolphins were less likely to be foraging and more likely to be travelling compared to other defined behavioural states. Surface prey ball herding, a subset of the broad foraging category, was observed only in MB [mid bay] and NS patches, and not within the NMF patch. In this scenario, MB and NS patches appear to be areas that yield greater benefits relative to prey ball herding opportunities than NMF areas. However, the NMF patch appears to be an area in which dolphins spend more time foraging overall'.*

The authors of the paper go on to caution not to simply conclude that marine farm floats are therefore a positive introduction into marine mammal habitat.

Two aspects of study design are relevant to how these results are interpreted. First, the survey areas differ between studies, the 1998 study was carried out in Inner Admiralty Bay, while the 2012 study covered both Inner and Outer Admiralty Bay, with a correspondingly lower proportion of the survey area occupied by mussel farms, as set out in Table 34 below. Second, the vast majority of mussel farms in Admiralty Bay were established in the 1980s and 1990s, well before the changes in abundance and foraging behaviour were recorded, and the number of farms has remained relatively constant over the period in which those changes occurred.

	Area inside farms	Area outside farms	% area farmed
Markowitz 1998	0.85km ²	28.5km ²	2.98
Pearson 2012	1.2km ²	115.8km ²	1.04

Table 34 Admiralty Bay dusky dolphin study areas

No study has identified a single cause for the observed changes, and both McConnell and Clement acknowledge that changes cannot be attributed to any one activity or pressure.

McConnell concluded:

- *'In regard to dusky dolphins, it is highly noteworthy that presence of dusky dolphins in Admiralty Bay has declined since 2003, and those dolphins that are present are typically forming smaller groups and are seldom observed herding prey balls (which was once a commonly observed foraging strategy) in the bay.*

¹⁹⁴ Piwetz, S., Pearson, H.C., Honkus, K.A. and Würsig, B., 2025. Dusky dolphin (*Lagenorhynchus obscurus*) habitat use in a mussel farming region and changes over time. *New Zealand Journal of Marine and Freshwater Research*, 59(2), 418-440 . <https://doi.org/10.1080/00288330.2024.2334287>

Furthermore, individual dolphins are less likely to remain in the bay for extended periods and instead are passing through the bay in a more transient manner. The reasons for these changes are unclear, although they may (at least in part) be attributable to existing effects of mussel farms; however, it is likely that several other factors are also involved (including larger oceanic and climatic changes which drive prey distribution).'

Clement similarly noted that *'it would be difficult to directly associate these declines to any increase in mussel farm structures within Admiralty Bay'*.

Srinivasan indicated that recent changes in dusky dolphin abundance within Admiralty Bay correspond to large scale oceanographic and climatic changes associated with the SOI, in particular decreasing sea surface temperatures that may be linked to a decline in local pilchards. Clement observed that:

- *'The above evidence suggests that there is no clear factor responsible for the current fluctuations in dusky dolphin abundance, the declining number of returning winter residents coming to Admiralty Bay waters and / or the decrease in bait ball feeding occurrences. Instead, it is likely a combination of several factors, some natural and some anthropogenic'.*

Those anthropogenic factors could include fishing pressure, sedimentation and human induced climate change.

The prey record is consistent with a food driven explanation. The 2026 FNZ fisheries assessment plenary for pilchards¹⁹⁵ records that total commercial landings declined consistently after 2003, although FNZ does not attribute a reason for the decline because of insufficient data. It notes that:

- *'In both Australia and New Zealand, pilchard have been affected by mass mortality events, the two in Australia are estimated to have each killed over 70% of the adult fish. The mortality rate of the 1995 event in New Zealand is not known, but was high. In combination, these features of the pilchard's biology suggest that the yield from the New Zealand stock will be variable, both short term (annual) and long term (decadal)'.*

McConnell also records Srinivasan's theory that phytoplankton depletion by mussel farms contributes to a decline in planktivorous fish but acknowledges that there is now considerable evidence that the overwhelming driver of phytoplankton abundance is the ENSO cycle and that any site specific effects are difficult to separate from background variation. Further:

- *'A fundamental question that requires attention as a starting point to unravelling the reason behind the observed behavioural change, is whether pilchards (and other potential prey species) are still present in Admiralty Bay'.*

Piwetz observed that *'dolphins were more likely to forage near farms (excluding specialised prey herding), though they seldom entered farms'*. On this basis, it is possible that dolphins that the farms confer some benefit on dusky dolphins in an environment where forage fish availability has changed.

Observations from the industry¹⁹⁶ are that bait balls are defensive formations of baitfish which in turn generally follow plankton and that:

¹⁹⁵ Ministry for Primary Industries., (2026) *Fisheries Assessment Plenary: Stock Assessment and Stock Status Volume 2: Horse mussel to Red crab*. 2, 1247-1255. ISBN: [978-1-997337-11-9](#).

¹⁹⁶ Mike Mandeno pers comm

- *'The abundance of phytoplankton in Admiralty Bay will be influenced by the ENSO cycle, with peak abundance (and mussel condition) during El Nino summers.*
- *Westerly winds push nutrients into the outer sounds causing phytoplankton to be abundant in places like Admiralty Bay. We've had strong bias in the last decade to La Nina conditions, which would favour*
 - *Lower abundance of phytoplankton in Admiralty Bay*
 - *Lower abundance of baitfish*
 - *Less observation of baitball feeding.*
- *It is feasible that baitfish are taking refuge in marine farms. Were the farms not there, they could take refuge in the adjacent shallows. It's common to see baitfish taking refuge in the shallows during summer and autumn in the Nelson/Marlborough region'.*

The research identifies that dusky dolphin presence, group size, residency and foraging behaviour in Admiralty Bay have changed materially since 2003, and Admiralty Bay remains important seasonal foraging habitat for the species but is not able to identify the reason for those changes. These are likely due to a combination of natural and anthropogenic factors, with prey availability, ecosystem productivity and climatic drivers such as the ENSO cycle and sea surface temperature featuring prominently. While the existing mussel farms may have some effect these have not been quantified and it is acknowledged that the existing farm extent generally predates the changes.

DOC noted in its comment on the referral application that:

- *'Further research is needed to determine whether changes in dusky dolphin foraging ecology are due to marine farms, environmental change, or a combination of factors'.*

In summary, there is agreement that there are gaps in knowledge regarding dusky dolphin presence and behaviour in Admiralty Bay and that further research is required. In response, Clearwater proposes to contribute to a collaborative research programme as set out in **Section 9.6.6**.

9.6.4 Hāpuku Rock Marine Mammal Assessment

McConnell determined marine mammal occurrence and habitat use using DOC sighting and stranding data together with the available published and unpublished literature.

McConnell identified the actual and potential effects of the proposed farms on marine mammals as habitat modification (including displacement, behavioural change and trophic interactions or habitat degradation), entanglement, vessel strike, underwater noise, marine debris and cumulative effects. For each effect, McConnell provides a table (Tables 6 to 15 of **Schedule D11**) identifying the species affected, their ecological value, the likelihood of presence, the magnitude of effect, the likelihood of effect and the overall level of effect. The results are summarised in Table 35 below, replicated from Table 16 of **Schedule D11**.

Potential Effect	Summary of Proposed Mitigations	Magnitude of Effect	Likelihood of Effect	Overall level of effect
Habitat displacement	Development and implementation of a Marine Mammal Monitoring Programme prior to farm establishment.	Negligible to low	Negligible to high	Negligible to low
Behavioural changes	Development and implementation of a Marine Mammal Monitoring Programme prior to farm establishment.	Positive to moderate	Negligible to high	Net gain to medium
Trophic Interactions	Development and implementation of a Marine Mammal Monitoring Programme prior to farm establishment.	Negligible to low	Negligible to low	Negligible to very low
Entanglement	Compliance with A+ Sustainable Aquaculture Guidelines. Thickest, tautest, lines/droppers practicable should be used. Spat holding lines should be weighted. No free floating, loose or slack lines. All ropes/lines should be maintained under tension. Anchor warps should not overlap or cross between farm blocks. Farm maintenance should be prioritised.	Negligible	Negligible to low	Negligible
Vessel strike	Compliance with A+ Sustainable Aquaculture Guidelines. Compliance with the MMPR. Vigilance for marine mammals maintained. Records of marine mammal sightings kept. All vessel strikes and near misses will be recorded and reported.	Negligible	Negligible to low	Negligible
Underwater noise – during construction	Vessels and on-board mechanical equipment should be regularly maintained, including lubrication and repair of winches, generators, propulsion components and other potential noise sources.	Low	Negligible to moderate	Very low to low
Underwater noise – ongoing		Negligible	Negligible to moderate	Negligible
Marine debris	Compliance with A+ Sustainable Aquaculture Guidelines. Adoption of appropriate waste management programmes Comply with Resource Management (Marine Pollution) Regulations 1998. Collect and retrieve any obvious marine debris during extraction and safely dispose of this onshore.	Negligible	Low	Negligible
Cumulative Effects	Development and implementation of a Marine Mammal Monitoring Programme prior to farm establishment.	Negligible to moderate	Negligible to moderate	Negligible to medium

Table 35 Hāpuku Rock marine mammal effects assessment replicated from Table 16 of Schedule D11

The outcome of that assessment is that, for dusky dolphins, the overall level of effect for behavioural changes,

and consequently for cumulative effects, is categorised as medium. All other effects on dusky dolphins are negligible to low. For all other marine mammals, including the NZCPS Policy 11(a) species bottlenose dolphins, killer whales, humpback whales and southern right whales, the overall level of effect for each category ranges from net gain through to low at most.

The residual medium rating for dusky dolphins therefore reflects the uncertainty described in **Section 9.6.3** rather than any identified mechanism of effect attributable to the proposed farms.

9.6.5 Mitigations

Clearwater proposes to implement the recommended mitigations as follows:

Effect	Mitigation(s)	Clearwater Operations
To minimise and manage the potential effects of habitat modification	Operational mitigations to reduce the potential for habitat modification effects on dolphins from the proposed new marine farms in Admiralty Bay are limited. In lieu of such controls, a Marine Mammal Monitoring Programme should be developed and implemented to facilitate a better understanding of how dolphins specifically utilise the proposed farm sites and immediate surrounds prior to farm establishment.	Clearwater do not consider that site specific monitoring will distinguish effects of establishment of the farm from broader issues affecting dusky dolphin presence and behaviour. Clearwater have instead proposed to contribute funding to a broader Admiralty Bay dusky dolphin research programme as set out in Section 9.6.6 below.
To minimise and manage the potential effects of entanglement	- Compliance with A+ Sustainable Aquaculture Guidelines; - Installation of the thickest, tautest, lines/droppers practicable; - Spat holding lines should be weighted; - No free floating, loose or slack lines; - All ropes/lines should be maintained under tension; - Anchor warps should not overlap or cross between farm blocks; and - Farm maintenance should be prioritised.	Clearwater is a member of A+ and will undertake operations in accordance with the Marine Mammal Management Plan (MMMP) included in Schedule E1 of this application.
To minimise and manage the potential effects of vessel strike	- Compliance with A+ Sustainable Aquaculture Guidelines; - Compliance with the MMMP; - Vigilance for marine mammals maintained; - Records of marine mammal sightings kept; and - All vessel strikes and near misses will be recorded and reported	As above, the MMMP includes provision for recording sightings of marine mammals and recording and reporting in the unlikely event of any incidences.
To minimise and manage the potential effects of underwater noise	Vessels and on board mechanical equipment should be regularly maintained	Regular vessel maintenance is inherent in Clearwater's operations and a key best management practice in A+
To minimise and manage the	Compliance with A+ Sustainable Aquaculture Guidelines;	Clearwater is a member of A+ which includes provisions for managing

potential effects of marine debris	• Adoption of appropriate waste management programmes; • Comply with Resource Management (Marine Pollution) Regulations 1998; and • Collect and retrieve any obvious marine debris during extraction and safely dispose of this onshore.	debris and waste and will undertake operations in accordance with the Marine Mammal Management Plan (MMMP) included in Schedule E1 of this application.
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Table 36 Hāpuku Rock marine mammal mitigations

The draft Marine Mammal Management Plan (MMMP) is included with this application as **Schedule E1** and is proposed as a condition of consent as set out in **Schedule F**. Implementation of the MMMP, including maintaining tensioned lines with no loose or slack ropes, weighted spat holding lines, managing vessel operations to minimise the risk of strike, regular vessel and equipment maintenance, and minimising and retrieving marine debris, means that effects on all marine mammal species other than dusky dolphins will be no more than low.

The one mitigation Clearwater does not adopt in the form recommended is site specific marine mammal monitoring. McConnell recommends that, because operational mitigations for habitat modification are limited, a Marine Mammal Monitoring Programme be developed and implemented to better understand how dolphins use the proposed farm sites and immediate surrounds prior to farm establishment. In preparation for this application, Clearwater consulted a marine mammal monitoring expert to discuss the parameters for a Passive Acoustic Monitoring programme to track dolphin presence away from and within the proposed farm area, before and after the establishment of farming structures.

However, considering that dusky dolphin presence and behaviour is closely correlated with prey availability, and potentially with the ENSO cycle, and that presence and behaviour changed in Admiralty Bay while the number of farms remained relatively constant, Clearwater considers that a discrete, farm scale monitoring programme would not provide meaningful data on the drivers of change, nor would it serve a resource management purpose.

Clearwater therefore proposes to contribute to a multi stakeholder Admiralty Bay dusky dolphin research programme, as set out in **Section 9.6.6** below.

9.6.6 Proposed Admiralty Bay Dusky Dolphin Research Programme

Clearwater propose to contribute to a multi stakeholder research programme, in partnership with the DOC, FNZ, the MFA and iwi. The purpose would be to address knowledge gaps at the scale at which the changes in dusky dolphin presence and behaviour have occurred. The programme would be multidisciplinary drawing in particular on expertise in marine mammal field research, fisheries, phytoplankton abundance and modelling, and mātauranga Māori. It is modelled on the King Shag Research Project set out in **Section 5.4.3.1**.

The primary research questions are as follows:

- Developing a model of ecosystem productivity in Admiralty Bay over time for the purpose of correlation with other observations. The model could integrate (for example):
 - Water column monitoring data
 - MSQP data
 - Mussel production data

- MODIS-aqua satellite imagery (for Chlorophyll a, turbidity and temperature) and its replacement(s)
- FRIA information
- Existing relevant modelling.
- Characterising the ongoing presence and abundance of pilchards and other prey species in Admiralty Bay including whether there are correlations between ecosystem productivity, the ENSO cycle other confounding factors such as storm events and dolphin prey species over time.
- Collate data of dusky dolphin presence in Admiralty and identify whether dusky dolphin presence in Admiralty Bay has continued to decline since the last Texas A&M survey.
- Whether there are correlations between the presence and abundance of prey species, ecosystem productivity, the ENSO cycle and dolphin presence and behaviour over time.
- What is the relative importance of the Inner and Outer Admiralty Bay for dusky dolphin presence and behaviour. If the model of ecosystem productivity in Admiralty Bay was spatially explicit, that might assist.
- Whether dusky dolphins that are present undertake different foraging strategies near to and away from marine farms.
- Whether dolphin prey species benefit from the presence of mussel farms and whether, dolphins in turn, benefit from potential prey concentrations

DOC have indicated support in principle for the research programme acknowledging the difficulty of isolating farm related effects from broader environmental drivers on the proviso that best practices including farm level monitoring of presence and behaviour as proposed under the MMMP are carried out. The draft consent conditions (**Schedule F**) set out a requirement for Clearwater to provide a one-off grant of \$30,000 towards this programme.

9.6.7 Marine Mammal Effects Summary

The Hāpuku Rock marine mammal assessment identifies potential effects from the proposed nursery farms as habitat modification (displacement, behaviour change and trophic interactions), entanglement, vessel strike, underwater noise, marine debris and cumulative effects. For all marine mammal species other than dusky dolphin, including the NZCPS policy 11(a) species bottlenose dolphin, killer whales, humpback whales and Southern right whales, the assessment concludes that effects will be no more than low, once industry standard best practice is implemented through the MMMP including maintaining tensioned lines with no loose ropes, managing vessel operations to minimise risk of strike, and minimising marine debris.

McConnell recognises Admiralty Bay as important seasonal foraging habitat for dusky dolphins and that dusky dolphin presence, group size and foraging behaviour in the bay have changed over time for reasons that remain uncertain and cannot be attributed to any single activity or pressure. While the MMMP will implement all of the recommended operational mitigations, Clearwater proposes that the residual uncertainty for dusky dolphins is best addressed by contributing to a broader Admiralty Bay dusky dolphin research programme, rather than imposing site specific monitoring, on the basis that monitoring confined to the farm footprint would be unlikely to add meaningful resource management value in understanding or responding to wider scale changes in dusky presence and behaviour.

Accordingly, overall marine mammal effects are considered to be **no more than minor**, with the remaining uncertainty in relation to dusky dolphins categorised as **up to medium** and proposed to be addressed via the

research programme.

9.7 Landscape and Natural Character Effects

9.7.1 Introduction

A landscape, visual and natural character assessment was carried out by Josh Hunt of Narrative Landscape¹⁹⁷ and is provided in **Schedule D10**. Brad Coombs of Isthmus has peer reviewed the assessment set out in the Joint Memorandum provided as **Schedule D25**. The landscape assessment followed the NZILA guidelines – *Te Tangi a te Manu*, considering physical, associative and perceptual attributes. The natural character assessment followed the framework set out within the Marlborough Landscape Study / Marlborough Coastal Study and associated natural character mapping in the MEP, evaluating natural character in terms of abiotic, biotic and experiential factors.

The assessment was informed by a site visit undertaken in December 2025.



Figure 35 Approaching the existing farm at Viewpoint B

9.7.2 Existing Landscape and Natural Character

The assessment summarises the existing environment in terms of a hierarchy of coastal landscape scales.

Hāpuku Rock as an open outer bay coastal setting along the eastern shoreline of Outer Admiralty Bay, enclosed by the steep coastal slopes of the Bulwer / Crichtons Hill landform. The site sits within the broader waters mapped as Outer Sounds Outstanding Natural Landscape (ONL) (nested Cook Strait Landscape in the MEP). However, it is not located within an area mapped as High, Very High or Outstanding Natural Character, and the site sits outside mapped Ecologically Significant Marine Sites.

The ONL mapping reflects a broad regional evaluation across the exposed outer island, reef, headland and passage features of Cook Strait and the Outer Sounds, rather than uniform values across all parts of Outer Admiralty Bay. At the wider scale, the coastal environment retains strong landform expression, rocky shorelines, open outer bay waters and a legible land/sea relationship. However, at the local bay and site coastline scale, the receiving environment is best understood as a '*modified rural and working coastal setting*'. Landcover is moderated by pastoral farming, access tracks, road access via Te Towaka – Port Ligar Road, powerline

¹⁹⁷ Narrative Landscape. Hāpuku Rock Landscape and Natural Character Assessment (2026) (**Schedule D10**)

infrastructure, nearby forestry and wilding pines, vessel traffic and the existing Clearwater mussel farm.

The landscape baseline assessment finds that the site retains clear coastal landscape qualities but is not experienced as a pristine or wholly undeveloped seascape and that:

- *'Overall, the receiving environment is best understood as a modified rural coastal and outer-bay setting located within a broader Outstanding Natural Landscape context. This distinction between the broader mapped landscape and the more local receiving environment is important when considering the potential landscape, visual and natural character effects of the proposal.'*

In assessing the natural character baseline, the assessment finds that:

- *'Overall, the Hāpuku Rock setting retains a moderate degree of natural character at the local scale. Its natural character values are derived primarily from the open coastal waters, intact coastal edge, steep landform and Outer Sounds context, but are moderated by modified rural landcover, existing marine farming and other working coastal activities.'*

9.7.3 Landscape Effects

The assessment finds that the proposal will introduce additional aquaculture structures adjacent to the existing marine farm at Hāpuku Rock and increase the visible working marine character of the local coastal environment, but would not alter the underlying coastal landform structure, rocky shoreline, headlands, terrestrial vegetation patterns, open-water setting or broader relationship with Outer Admiralty Bay and Cook Strait. At the wider landscape scale (including the mapped Cook Strait ONL), landscape effects are assessed as low overall and very low in relation to the specific values identified in the MEP schedule for the Cook Strait ONL, reflecting the limited extent of change and the fact that the farm sits within a sheltered, modified section of the broader overlay.

At the local Hāpuku Rock site coastline scale, the proposal introduces offshore structures without altering the physical coastal landform, rocky shoreline, headlands, gullies or terrestrial vegetation patterns. With no coastal edge modification and the northern boundary refined to avoid localised inshore cobble and shell habitat, the dominant pastoral slopes and legible land–sea relationship remain intact. Physical landscape effects are assessed as low.

Perceptual effects arise from an increase in visible surface structures across the water, but these are experienced within an already modified rural and working coastal setting alongside roading, powerlines, pastoral farming and the existing marine farm. The low-lying structures remain visually subordinate to the scale of the adjoining coastal slopes and open waters, with perceptual landscape effects assessed as low.

The proposal aligns with established productive associations of the area, including pastoral farming, forestry, maritime activity and existing aquaculture. Because marine farming already forms part of the recognised working coastal landscape of Admiralty Bay and the wider Sounds, the proposal does not materially alter known associative attributes. Associative landscape effects are assessed as low.

Landscape effects are assessed as low overall.

9.7.4 Visual Amenity Effects

The assessment finds that while the proposed farm will increase the visible extent of aquaculture the structures will be visible as low-lying linear elements on the water surface and seen in association with the existing farm,

the modified rural coastal backdrop and the *'broader working coastal character of Admiralty Bay'*.

Land based views are limited. The principal land based viewing opportunities are intermittent and transitory views from Te Towaka/Port Ligar Road. The adjacent coastline does not appear to have a residential viewing audience overlooking the proposed sites.

The proposal would be more apparent to marine users travelling through or intentionally approaching this part of Outer Admiralty Bay. However, the structures would remain visually subordinate to the adjoining coastal slopes and wider open water setting. The assessment finds that the main visual change would be localised and would not result in the farm becoming visually prominent or dominant within the wider landscape.

Visual effects would be very low for motorists, very low increasing to low for vessels and very low with regard to navigational lighting.

Visual effects are assessed as low at most with most viewing audiences experiencing very low effects.

9.7.5 Natural Character Effects

Hunt assessed natural character effects in relation to abiotic, biotic and experiential attributes:

- Abiotic effects are assessed as very low, as the proposal would not alter the coastal landform, rocky shoreline, open-water setting or wider physical processes. The immediate marine environment is predominantly deep silt and clay substrate, while the northern block has been refined to avoid localised cobble and natural shell habitat near the northern inshore edge.
- Biotic effects are assessed as low. The assessment recognises the predominantly soft sediment seabed, the refinement of the northern farm boundary to avoid more sensitive, localised habitat, and the absence of terrestrial modification. The assessment notes that Admiralty Bay forms part of a wider habitat context for seabirds and marine mammals, however *'the key point is that the proposal would not modify terrestrial habitat, would avoid the more sensitive, localised seabed habitat, and would be located within an existing marine farming context'*. The assessment recognises that the potential ecological benefits provide relevant context when considering the biotic character of marine farming within the Marlborough Sounds.
- Experiential effects are assessed as low. They arise from the increased visible extent of marine farming within the local coastal setting. These effects are moderated by the existing marine farm and the modified rural coastal backdrop, including pastoral land use, forestry and wilding pines, access tracks, road access, powerline infrastructure and vessel movement.

Overall, the *'proposal would result in localised modification within the coastal marine area, but would not materially compromise the natural character qualities of the Hāpuku Rock setting'* and the natural character effects are assessed as low.

9.7.6 Cumulative Effects

The assessment notes that marine farming is already present within the immediate Hāpuku Rock setting and is established elsewhere in Admiralty Bay and the wider Outer Sounds. The proposed blocks would *'straddle'* the existing marine farm and consolidate marine farming activity within the local setting, rather than introduce an entirely new activity into an unmodified seascape.

Given *'the modified rural coastal backdrop, existing aquaculture baseline, low-profile nature of the structures*

and continued dominance of the adjoining coastal landform', cumulative landscape, visual and natural character effects are assessed as low.

9.7.7 Outstanding Natural Landscape Scale and Discussion

The assessment considers the site within the context of the mapped Outer Sounds ONL and Hunt finds that *'in my opinion, the local Hāpuku Rock context has capacity to accommodate the proposal without compromising those broader ONL values'*. At the scale at which the effects will occur the proposal would *'affect a more localised working coastal setting, rather than the core island, reef, cliff, passage and high-naturalness values that principally underpin the Cook Strait ONL'*.

9.7.8 Landscape and Natural Character Effects Conclusion

Overall, the proposed Hāpuku Rock marine farms will result in localised landscape, visual and natural character change within the Hāpuku Rock setting. However, the assessment finds that the proposal would not materially compromise the key coastal landscape characteristics of the site, the visual amenity of the wider receiving environment, or the values and characteristics that underpin the mapped Outer Sounds ONL.

The assessment concludes that the proposed marine farms can be accommodated at Hāpuku Rock without compromising the identified landscape and natural character values of the receiving environment.

Overall, it is considered that the landscape, visual and natural character effects will be **no more than minor**.

9.8 Customary Fishing Effects

As set out in **Section 6.17** the applicant has undertaken an initial assessment of effects on customary fishing using the best available information as follows:

Existing customary use and values	Hāpuku Rock is at the outer edge of Admiralty Bay facing Rangitoto ki te Tonga and sits within the customary food gathering area/rohe moana of Te Tauihu iwi.
	The bay and the wider Admiralty Bay / Rangitoto ki te Tonga area supports customary gathering of finfish and kaimoana, but there are no mapped mātaimai, taiāpure or rāhui in the immediate footprint of the proposed farm.
	In the Statements of Association Ngāti Kuia describe the wider outer Sounds and Te Aumiti / French Pass area as a culturally rich seascape tied to pakohe, tauranga ika, travel routes and wāhi tapu.
	In the Statements of Association Rangitāne also expressly identify D'Urville Island / Rangitoto ki te Tonga and the surrounding coastal marine area as part of their wider coastal domain, linking it to pakohe, ancestral identity, and the long fishery and communication routes of the Marlborough Sounds and Cook Strait.
	In the Statements of Association Ngāti Kōata have particularly strong place based associations with Moawhitu and Penguin Bay on Rangitoto ki te Tonga, describing them as main settlements and mahinga kai areas on D'Urville Island, with eel fisheries, birding, urupā and enduring kaitiaki relationships.
	The Iwi Management Plan of Ngāti Kōata (2002) ¹⁹⁸ states at 8.6 and 8.11(3): <i>8.6 Ngāti Kōata culture and traditions involve fishing. Fishing is spiritual, ritual and traditional to Ngāti Kōata. There are various rituals that we adhered to before we can enter and leave the domain</i>

¹⁹⁸ Ngāti Kōata Trust. [Ngāti Kōata Trust Iwi Management Plan 2002](#) (June 2002).

	<i>of Tangaroa (Atua of the Sea). Recognition of Atua by Māori was achieved through the practice of Karakia, Kawa and Tikanga.</i> <i>8.11 Ngāti Koata will object when coastal development proposals have adverse effects on the following resources that can not be avoided, remedies or mitigated to Ngāti Koata satisfaction,</i> <i>...</i> <i>3. Customary fishing grounds; ...</i> In the Statements of Association Ngāti Toa express strong associations with the Outer Sounds / island environment through their Chetwode Islands and wider Cook Strait coastal acknowledgements Ngāti Koata were part of a group that made a previous application at the site which was declined.
Nature of effects	The EclA finds that the farm structures may have positive benefits for fish, there are no TAR species present and the overall effect will be negligible to low. The farm structures would exclude customary fishing from the seabed but customary fishing can continue in the water column between and around lines using small vessels, as occurs at existing mussel farms elsewhere in the Sounds. A recent MPI assessment for Rangitoto ki te Tonga farms¹⁹⁹ Outer Sounds farms indicated that the absence of hard substrates beneath the proposed sites makes it unlikely blue cod, kina, pāua, rock lobster or mussel would be caught there and that Tarakihi is likely to be the main fish species available for fishing at the proposed sites. The proposed 28.03 hectare farm footprint is small relative to the available customary fishing grounds in Admiralty Bay and adjacent coastal waters. Shellfish farming does not deplete target customary species, and recent science and MPI decisions recognise that mussel farms may enhance habitat and local fish abundance, which can in turn support customary harvest at farm margins.
Proposed management response	The proposed conditions can ensure that customary fishers can safely navigate through or alongside blocks and continue to access customary species in the area.

Table 37 Hāpuku Rock customary fishing assessment

9.9 Proposed Conditions

Proposed consent conditions are set out in **Schedule F**. For Hāpuku Rock they require management of debris including participation in the MFA beach cleaning programme. Vessels must not transit within 200 metres of any king shag colony. The site must be operated in accordance with an MMMP and a BMP both of which are provided in **Schedule E**. Clearwater must also contribute funding to a research project to enable increased understanding of dusky dolphin presence and behaviour in Admiralty Bay.

9.10 Conclusion

The Hāpuku Rock application will provide 28.03 hectares of mussel nursery water space at two sites either side of farm 8057, which has consistently delivered above average spat retention during 18 years of operation by Clearwater. With a hatchery under construction, Clearwater will be in a position to optimise the use of this nursery water space to drive a productivity uplift across numerous Te Taihu farms.

NZIER finds that the site will support 7,914 GWT of production, with an equivalent production value of \$13.1

¹⁹⁹ Fisheries New Zealand. [Aquaculture Decision on four coastal permits in Catherin Cove, Rangitoto ki te Tonga/ d'Urville Island](#) (25 May 2023).

million and annual potential export revenue of \$47.1 million. Clearwater will contribute \$10,000 per annum to community and restoration initiatives.

The potential environmental effects have been comprehensively assessed and for the most part are considered to be no more than minor. There is uncertainty regarding dusky dolphin presence and behaviour in Admiralty Bay and the marine mammal assessment finds that behavioural effects may be up to moderate. In response, Clearwater proposes to contribute \$30,000 to a multi stakeholder Admiralty Bay dusky dolphin research programme to address ecosystem level knowledge gaps. The EclA finds that cumulative ecological effects will be negligible in magnitude and very low overall. It is for iwi to determine cultural effects, however the initial assessment finds that effects on customary fishing will be no more than minor.

The site will be operated in accordance with industry best practice, and the proposed conditions provide appropriate mitigations including operation in accordance with the MMMP and the BMP as well as the research contribution. The proposed conditions also provide a placeholder for ongoing iwi engagement on effects on cultural values including mauri.

The Hāpuku Rock application will boost productivity across a broad range of farms in the region and enable climate change adaptation, and is consistent with the purpose of the FTAA.

Part 10 Okuri Bay

10.1 The Proposal

10.1.1 Overview

Talley's Limited (Talley's) and Clearwater Mussels Limited are applying for resource consent to farm production mussels using conventional longline structures at two sites totalling 27.89 hectares at Okuri Bay in the Outer Sounds. The site location, site plan and layout plans are included in **Schedule A**.

The purpose is adding diversity to the availability of mussel production sites for strategic adaptation to climate change by adding space in the cooler Outer Sounds waters that is less vulnerable to rainfall closures and algal blooms. This will contribute to the ability to provide continuous product to the factories and year round employment.

10.1.2 Location

Okuri Bay is located at the southern end of Current Basin, on the western edge of the Marlborough Sounds. The bay is open to Tasman Bay to northeast, with D'Urville Island situated immediately to the north and Admiralty Bay to the east through French Pass. A detailed site locality map is provided in **Schedule A**.

The application covers two sites within Okuri Bay, one smaller site centrally located at the head of the bay, and a larger site extending along the western shoreline. Okuri Bay encompasses approximately 335 hectares²⁰⁰. The coastline adjacent to the application sites is privately held and not accessible by road.

10.1.3 Site Characteristics for Shellfish Farming

Located on the western side of French Pass, Okuri Bay is heavily influenced by the coastal processes occurring within Tasman Bay. While anecdotally the bay delivers average spat retention, 17 years of production on farm 8009 has confirmed the area as a viable crop location.

Importantly, Okuri Bay lies within the French Pass growing area under the Marlborough Shellfish Quality Programme. This growing area is separate to the various areas that divide Pelorus Sound and often remains open when catchment rain events result in closures throughout Pelorus Sound.

As with the Hāpuku Rock sites, Okuri Bay is accessible for industry vessels in almost all weather conditions, as it only exposed to wave events from the northwest. The location offers excellent proximity to the current and proposed Outer Sounds nursery sites.

The Robertson EclA in **Schedule D21** records the depth range as 15 to 25 metres.

10.1.4 Applicant

Talley's are the co-owners of Clearwater and combined they produce and process more than 30% of the national Greenshell mussel harvest volume each year. The Talley's shellfish division employs 500 to 700 staff across Te Taihu.

Talley's, established in 1936, is one of New Zealand's largest food producers and processors, with extensive

²⁰⁰ Conservatively calculated using [MDC Smartmaps](#) GIS tools.

interests in red meat, vegetables, dairy and seafood. The company employs thousands of staff throughout New Zealand, with major processing facilities in Motueka, Nelson, Blenheim, Ashburton and Timaru.

Talley's export to more than 70 countries and international market demand is strong, with FY25 setting a new processing record for Greenshell mussels. Talley's have been instrumental in the growth of the New Zealand mussel industry and pioneered many of the trade relationships the industry now relies upon.

10.1.5 Activity Description

The application is to farm Greenshell mussels and all other 'commonly consented' shellfish and seaweed species set out in Appendix 11 of the MEP. The application covers two sites, one smaller site (3.43 hectares) centrally located at the head of the bay and a larger site (24.46 hectares) extending along the western shoreline. Both sites are to be used for Greenshell mussel crop production, with spat sourced from dedicated nursery sites and on-grown to harvest size.

Spat will be sourced from nursery sites such as Papatua, Hāpuku Rock and Guards Bay and deployed at sizes of approximately 25–70 mm. For smaller mussels, a final seeding density intervention may be required, while larger mussels will be on-grown to a harvestable size of about 85–95 mm.

Mussels will grow on 37 conventional longline structures (screw anchors, warps, double backbones, floats and growing rope), within a combined footprint of 27.89 hectares. Based on site geometry, individual backbones will range from about 152–203 metres, with 32 lines on the western site and 5 lines on the central site, giving a total backbone length of 6,757 metres and droppers typically 10–15 metres long. Backbones may be held at the surface or submerged to about 3 metres to manage wave energy and blue mussel settlement, and line spacing has been increased from the industry norm of 20 metres to 27.14 metres to reflect the semi-exposed nature of the sites (partial exposure to north westerly conditions).

Orange mussel floats will be placed at the ends of each line and at the centre of the outside lines, with additional Aids to Navigation (including special marks and radar reflectors) under direction from the Harbourmaster, to ensure navigation safety. As with other mussel farms, the public will be able to fish, dive and tie up to the lines.

The farm will be operated in accordance with industry best practice, including the MFA ECP and A+. Conditions of consent will include beach cleaning requirements and operation in accordance with a Biosecurity Management Plan and a Marine Mammal Management Plan.

10.1.6 Project Delivery

Talley's and Clearwater are committed to commencing development of the site within 1 month of obtaining consent. Full development of the site will occur within 24 months. The first mussels would be available for harvest within 30 months. The NZIER economic assessment (**Schedule D22**) assumes that all lines will be producing crop by Year 5.

10.2 Benefits

10.2.1 Production Supported, Indicative Export Value and Jobs Created

The proposed application sites, in conjunction with the nursery sites included in this application, have the potential to support the growth aspirations of Talley's, New Zealand's largest mussel processor.

Utilising Te Hiku seed sourced from nursery sites, the Okuri Bay water space is expected to produce approximately 710 GWT per annum, with an indicative export value of \$4.2 million and create around 9 FTE roles. If hatchery seed is used, production is anticipated to more than double to 1,584 GWT per annum, increasing the indicative export value to \$11 million and supporting 18 FTE roles.

Importantly, many of the FTE roles will be generated in provincial centres such as Havelock, Motueka and Blenheim, where the mussel industry plays a critical role in sustaining economic prosperity.

For the purposes of the NZIER economic assessment (**Schedule D22**), it was assumed that 80% of the total lines would be seeded with Te Hiku seed in Year 1, with this allocation reaching a steady state of 50% Te Hiku seed and 50% hatchery seed by Year 4. At a 50:50 ratio, the production supported equates to **1,095 GWT per annum**.

10.2.2 Economic Impacts

NZIER finds that, based on an average expected production supported of 1,095 GWT the equivalent **production value will be \$1.8 million**, and the **annual potential export revenue will be \$6.5 million**.

10.2.3 Climate Adaptation

The diversification of aquaculture growing areas represents a critical climate adaptation strategy for the mussel industry. Anticipated changes in climatic conditions are expected to increase both the frequency and severity of production disruptions, making geographic diversity a key risk mitigation measure.

Climate projections for New Zealand indicate an increase in the intensity and frequency of storm events, which in turn are likely to generate more frequent flood related harvest closures due to elevated sediment and contaminant loads in receiving waters. Such closures pose a direct risk to production continuity.

In parallel, ocean warming trends are correlated with a heightened incidence and duration of harmful algal blooms. These events, already periodically observed in Marlborough, are expected to become more prevalent, with corresponding impacts on both shellfish safety and market access.

By diversifying growing areas across different hydrodynamic and climatic zones, operators reduce the probability of simultaneous site disruptions. This spatial risk distribution not only enhances operational resilience but also strengthens the industry's ability to maintain consistent supply volumes for both domestic processing facilities and international markets.

10.2.4 Community and Environmental Contribution

If the application is successful, Talley's and Clearwater propose to donate \$10,000 per annum between them to the MFA CEF.

10.2.5 Strategic Relevance

The application directly supports the ADP goal of growing aquaculture to \$3b by 2035 and is projected to support export revenue generation and regional employment.

10.3 The Existing Environment

The Okuri Bay application site is set within the Marlborough Sounds High Amenity Landscape, and Very High

Coastal Natural Character in the MEP. It is not within an area of Outstanding Natural Character or Landscape. The site is located well away from any ESMS identified in the MEP. It sits within the Marlborough Sounds Important Bird Area in the MEP but not within the Marine Mammal Distribution Area.

The proposal is for two new farming areas in the same bay as one of the applicant's existing farms. It is subject to an application for private plan change (to the MSRMP) and resource consent which was lodged in 2023²⁰¹ and immediately placed on hold awaiting outcomes of Variation 1 to the MEP. The resource consent application will be withdrawn prior to lodging a substantive Fast-track application and the plan change will be superseded when the MEP becomes operative.

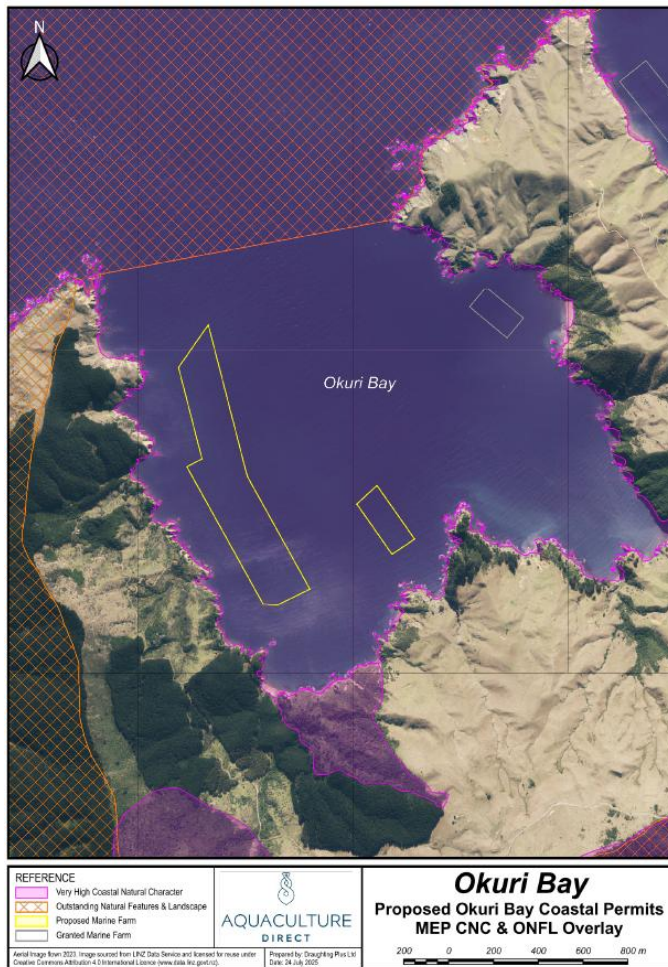


Figure 36 Okuri Bay MEP Overlays

The Okuri Bay landscape assessment provided in **Schedule D8** of this application describes the area:

- *At the wider scale, Okuri Bay forms part of the Marlborough Sounds and Current Basin coastal environment, which is characterised by steep coastal landforms, rocky shorelines, open coastal waters, high flow marine environments, and strong land–sea relationships. At the local bay scale, however, the receiving environment is more modified. Okuri Bay is a broad, generally U-shaped coastal basin enclosed by the Okuri Point / Okuri Hill, Orr Hill and Malvern Hill landforms, with surrounding slopes influenced by pastoral land use, forestry, regenerating vegetation, scattered buildings, access tracks / roading and an existing marine farm.'*

²⁰¹Marlborough District Council, [Resource Consent U230237](#) (MDC property files).

The landscape assessment also details recreational activity. Okuri Bay is primarily experienced from the water with limited land based public access and a small number of dwellings. While recreational boating, fishing and general coastal use form part of the wider Sounds context, although Okuri Bay does not appear to function as a major public recreation destination in the same way as more accessible or settlement focused parts of the Sounds.

The Robertson EclA in **Schedule D21** records the ecological value of the Site ZOI as low and characterised by widespread, low complexity muddy sand habitat with no reef, horse mussel bed or other high value benthic feature within the consent footprint. However, there is an area of horse mussel biogenic habitat and associated reef in close proximity (within 5 metres of the western block) which is within the Site and Project ZOI however the structures have been positioned to avoid this habitat.

All other ecological values are similar to those at each of the sites, and summarised in **Section 10.4**

The Marlborough Sounds Cruising Guide has no specific information on Okuri Bay. There are no known tourism operators in the vicinity.

There are no MEP mapped heritage sites or heritage trees and no archaeological sites listed on the ArchSite in the vicinity of the proposed farm.

10.4 Site Specific Effects Summary

An overview of effects with applicable references is provided in Table 38 below. Site specific effects that warrant further detail are set out in the following subsections.

Effect	Assessment	References
Positive effects	The proposal will create a range of economic, social, cultural and ecosystem benefits.	Part 5 Project Benefits
		NZIER Economic Assessment (Schedule D22)
		Project Coastal Ecological Assessment 2026 (Schedule D21)
Seabed	- Site specific seabed effects are set out in detail in Section 10.5 below. - In summary, as the proposed site layout avoids the areas recorded as reef and biogenic habitat, the seabed is appropriate for mussel farming, and the seabed effects are considered to be no more than minor.	Section 10.5 Seabed Effects
		Okuri Bay Ecological Assessment 2022 (Schedule D6)
		Project Coastal Ecological Assessment 2026 (Schedule D21)
Water column	- There will be negligible water column effects. Typically, little if any effects are detectable beyond the boundaries of the farm and the proposed site is in a well flushed environment. - The effects of mussel farms are relatively insignificant compared to other terrestrial and regional oceanographic drivers. It is not anticipated that there would be any adverse cumulative water column effects from the project.	Section 6.6 Water Column Effects
		Cawthron Mussel Farm Plankton Report 2020 (Schedule I3)
		Okuri Bay Ecological Assessment 2022 (Schedule D6)
		Project Coastal Ecological Assessment 2026 (Schedule D21)

Effect	Assessment	References
Marine mammals	- Effects on marine mammals are expected to be no more than minor. - Mussel farms have been coexisting with marine mammals since the inception of the industry. - The site will be operated in accordance with the A+ Sustainable Management Framework and the MFA ECP thereby ensuring that all best practices are followed to minimise the chance of marine mammal interactions. - The site will be operated in accordance with an MMMP as set out in the proposed consent conditions.	Section 6.7 Marine Mammal Effects
		Marine Mammals Letter 2026 (Schedule D20)
		Okuri Bay Ecological Assessment 2022 (Schedule D6)
		Project Coastal Ecological Assessment 2026 (Schedule D21)
Seabirds	- Effects on the endangered king shag are not anticipated. - Recent studies show that king shag have individual foraging preferences. Some prefer to forage in marine farms, and the birds frequently use marine farms as roosting sites for rest or to digest their food. - No adverse effects on other seabirds are anticipated.	Section 6.8 Seabird Effects
		Seabirds Letter 2026 (Schedule D19)
		Okuri Bay Ecological Assessment 2022 (Schedule D6)
		Okuri Bay King Shag Assessment 2022 (Schedule D7)
Biosecurity	- There will be no more than minor biosecurity effects. - Any residual effects will be mitigated to the extent practical by the applicant operating biosecurity best practices set out in the A+ Sustainable Management Framework. - The site will be operated in accordance with a BMP as set out in the proposed consent conditions.	Section 6.10 Biosecurity Effects
		Project Coastal Ecological Assessment 2026 (Schedule D21)
		Biosecurity Management Plan (Schedule E3) and Proposed Conditions (Schedule F)
Fisheries resources	- The farms are sited over soft sediment which does not comprise important habitat for fish. - Mussel farming can provide benefits for pelagic and benthic species of both conservation and commercial importance.	Section 6.10 Fisheries Resources Effects
		Project Coastal Ecological Assessment 2026 (Schedule D21)
Landscape, and natural character	- Okuri Bay specific landscape and natural character effects are set out in detail in Section 10.6 below. - In summary the landscape and natural character effects are considered no more than minor and appropriate in the context of the Okuri Bay setting.	Section 10.6 Landscape and Natural Character Effects
		Okuri Bay Landscape Assessment 2026 (Schedule D8)
Amenity	- Okuri Bay specific visual amenity effects are set out in detail in Section 10.6 below. - In summary, visual effects will be very low to low. - The main noise generated is during harvest, which occurs infrequently and over relatively short periods. There are limited numbers of dwellings in the vicinity, and noise will be within the limits set out in the MEP. - Industry best management practices will be followed to	Section 6.12 Amenity Effects
		Okuri Bay Landscape Assessment 2026 (Schedule D8)

Effect	Assessment	References
	minimise amenity effects.	
Security of Structures and Debris	- A condition requiring cleaning of beach debris is also proposed. - Taken overall, with the best management practices in place, the farm will be operated with structural integrity, and effects from debris will be no more than minor.	Section 6.13 Security of Structures and Debris
Navigation, Public Access and Recreation	- There will be no more than minor navigation effects. The farm will be installed and marked in a manner that enables safe navigation through and around the farm. - The farm blocks are sited in a manner that allows for navigation to and along the shore. Public access to the sites will still be enabled. - Effects on fishing are not anticipated but will be appropriately assessed by MPI. Navigation through and around the farm for fishing vessels will be enabled. Effects on fisheries resources will be no more than minor and, in some respects, positive. - Any residual effects will be mitigated to the extent practical by the applicant operating industry best practices. - Mussel farms are known to have positive effects for recreational fishing.	Section 6.14 Navigation and Public Access Effects
		Section 6.15 Recreation and Tourism (including Fishing) Effects
Cultural Effects	- It is for iwi to determine cultural effects. - The site is not within a formal mātaihai, taiāpure or rāhui area. It is subject to applications under MACAA. - During engagement with pou taiao cumulative ecological and cultural effects were raised as the key concern noting that cultural values are intrinsically linked to ecological health. - The applicant anticipates ongoing engagement with iwi on this application and the resulting activity.	Section 6.16 Cultural Effects
Customary Fishing Effects	It is for iwi to determine effects on customary fishing however the EclIA supports the applicants' initial assessment (set out in Section 10.7) that effects on customary fishing will be no more than minor.	Section 10.7 Customary Fishing Effects
Historic heritage	The historic heritage effects are considered no more than minor.	Section 6.18 Historic Heritage Effects
Cumulative	- The cumulative ecological effects will be negligible in magnitude and very low overall. - The cumulative landscape, visual and natural character effects are no more than minor. - The application generally aligns with the policies that guide the identification of new space (AMAs) in the MEP.	Section 6.19 Cumulative Effects
		Project Coastal Ecological Assessment 2026 (Schedule D21)

Table 38 Okuri Bay effects summary

10.5 Seabed Effects

An assessment of the seabed was carried out by Robertson Environmental in 2022²⁰² to inform the application for private plan change and concurrent resource consent. That assessment is provided in **Schedule D6**.

Robertson's assessment comprised a seabed characterisation component involving sonar survey, ground-truthing with images, and data processing and interpretation. A desktop review considered a previous survey undertaken by Davidson Environmental in 2021 to inform submissions to the MEP for proposed new AMAs. Robertson also considered known datasets on landforms, marine farms (MDC’s Smart Maps database), climate, and topography of the site the use of aerial photographs, and to a lesser extent the New Zealand Land Cover Database version five (LCDB5).

The survey area was larger than the application sites and included the area of the existing Clearwater farm 8009 as shown below.

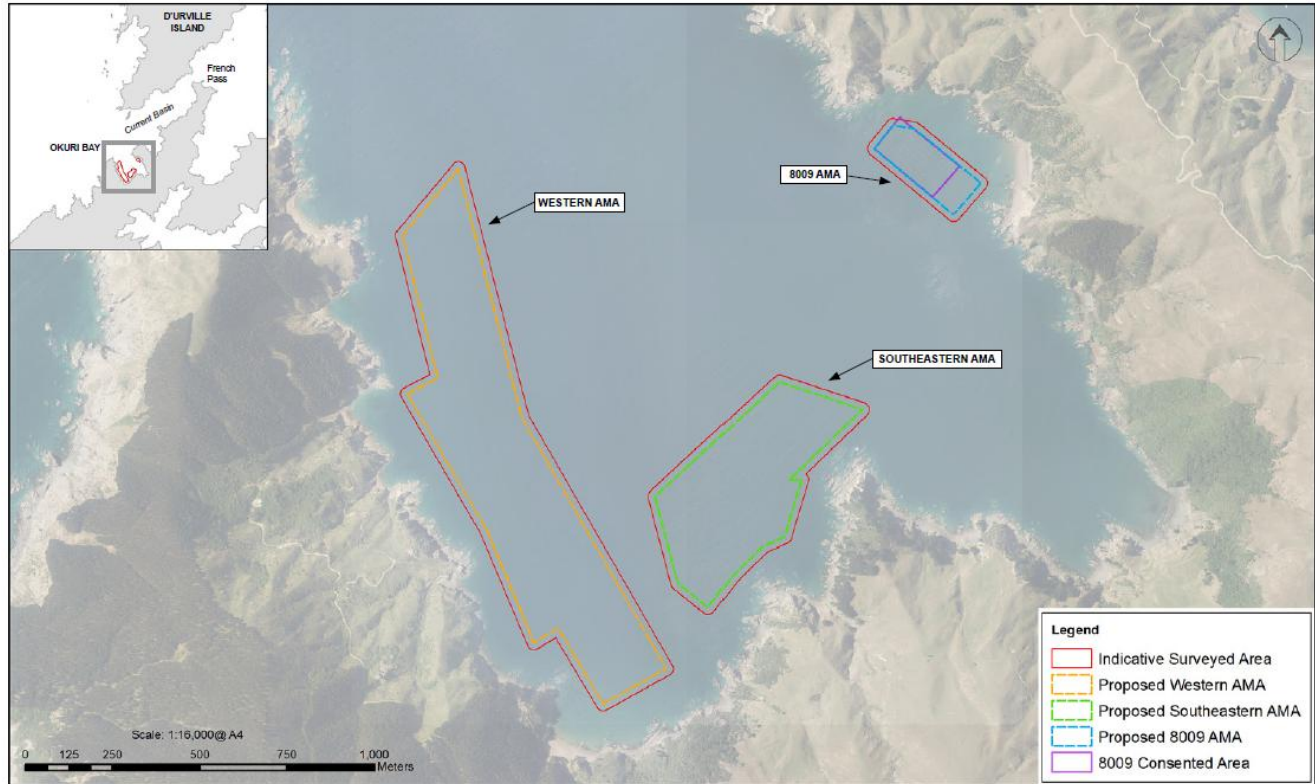


Figure 1.1. Overview of the location and extent of proposed AMAs and surveyed area assessed in the present study.

PROJECT: OKURI BAY AMA, CLEARWATER MUSSELS LTD
Okuri Bay AMAs Survey Area
| Date: 23 August 2022 | Revision: A | Aerial: LINZ 17/18

Figure 37 Areas of Okuri Bay surveyed by Robertson

Robertson recorded four distinct areas of subtidal habitat within the survey areas:

	Attributes	Comment
Biogenic habitat	Horse mussels at density of ≥1 per m2	• The ecological value of biogenic habitat is very high given recognised biodiversity attributes (including indigenous species). • Horse mussel beds contain regionally significant species (<i>A. zealandica</i>) and

²⁰² Robertson, B.P. *Ecological Impact Assessment for Proposed Aquaculture Management Areas, Okuri Bay, outer western Marlborough Sounds*. (Robertson Environmental 2022). (**Schedule D6**).

	Natural shell $\geq 40\%$ cover	together with areas of moderate-high natural shell are considered to act as a buffer and connect adjacent ecosystems. The areas mapped in this report are not recognised as ESMS (PMEP).
Non biogenic habitat	Reef; bedrock, boulder and cobble field (nearshore subtidal)	The ecological value of the inshore reef is high given it may support Nationally Threatened, At Risk or locally uncommon or rare species
	Soft sediment; soft mud, firm mud firm muddy sand	The balance area across all three proposed AMAs and wider surveyed area is soft sediment lacking any notable biological or habitat features.

Table 39 Okuri Bay habitat types

There was no obvious evidence of other biogenic species (e.g. rhodoliths, macroalgae, seagrass, tubeworms, brachiopods) present.

Robertson provided habitat maps of the western and southern areas surveyed:

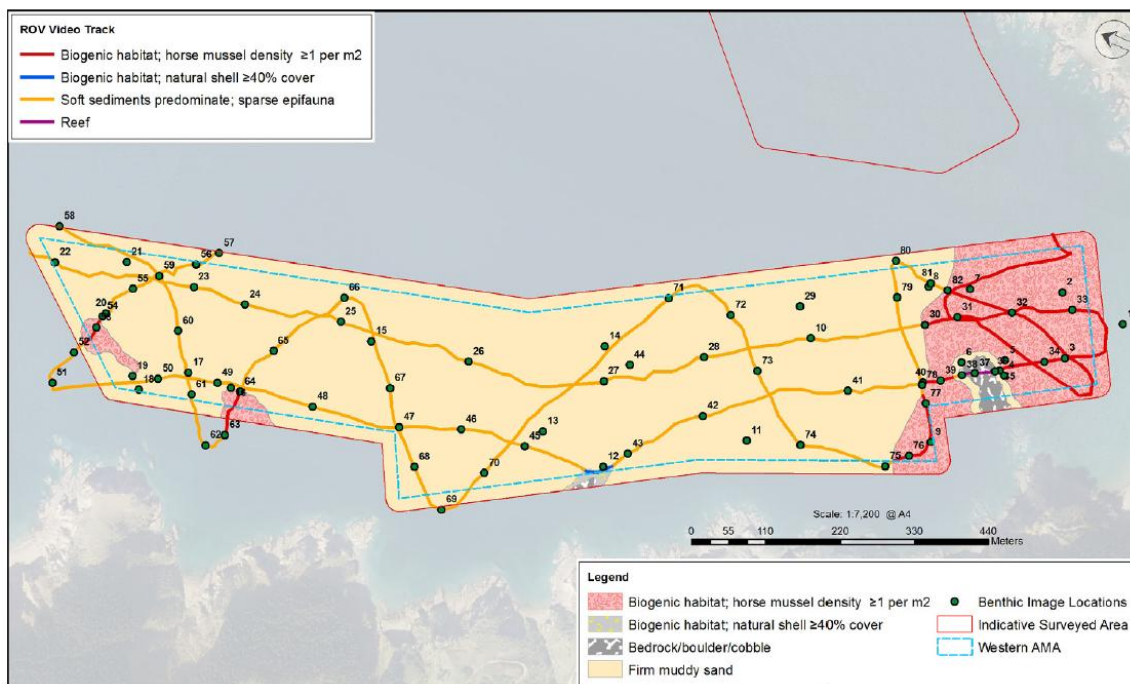


Figure 3.3b. Broad scale (indicative) map of dominant benthic habitat assessed below the proposed Western AMA. ROV video track and locations of benthic imagery locations used to corroborate the extent of mapped habitat types are overlaid. Detailed field data and benthic imagery is presented in Appendix A.

PROJECT: OKURI BAY AMA, CLEARWATER MUSSELS LTD
Benthic Habitat Occupying Survey Area
[Date: 23 August 2022 | Revision: A | Aerial: LINZ 17/18
Plan map prepared for CML by Robertson Environmental Limited
Project Manager: Ben.Robertson@robertsonenviro.co.nz]

Figure 38 Benthic habitat map of western area prior to final site selection

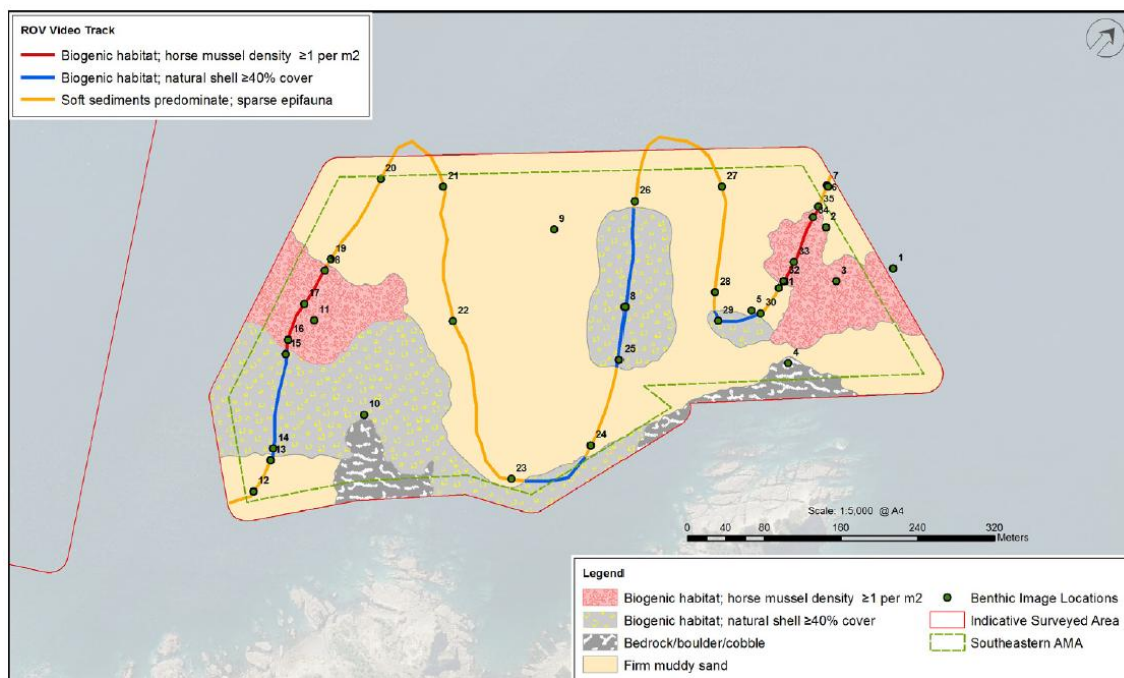


Figure 39 Benthic habitat maps of southern area prior to final site selection

Robertson then provided a map identifying areas which were considered to be unsuitable for marine aquaculture activities.

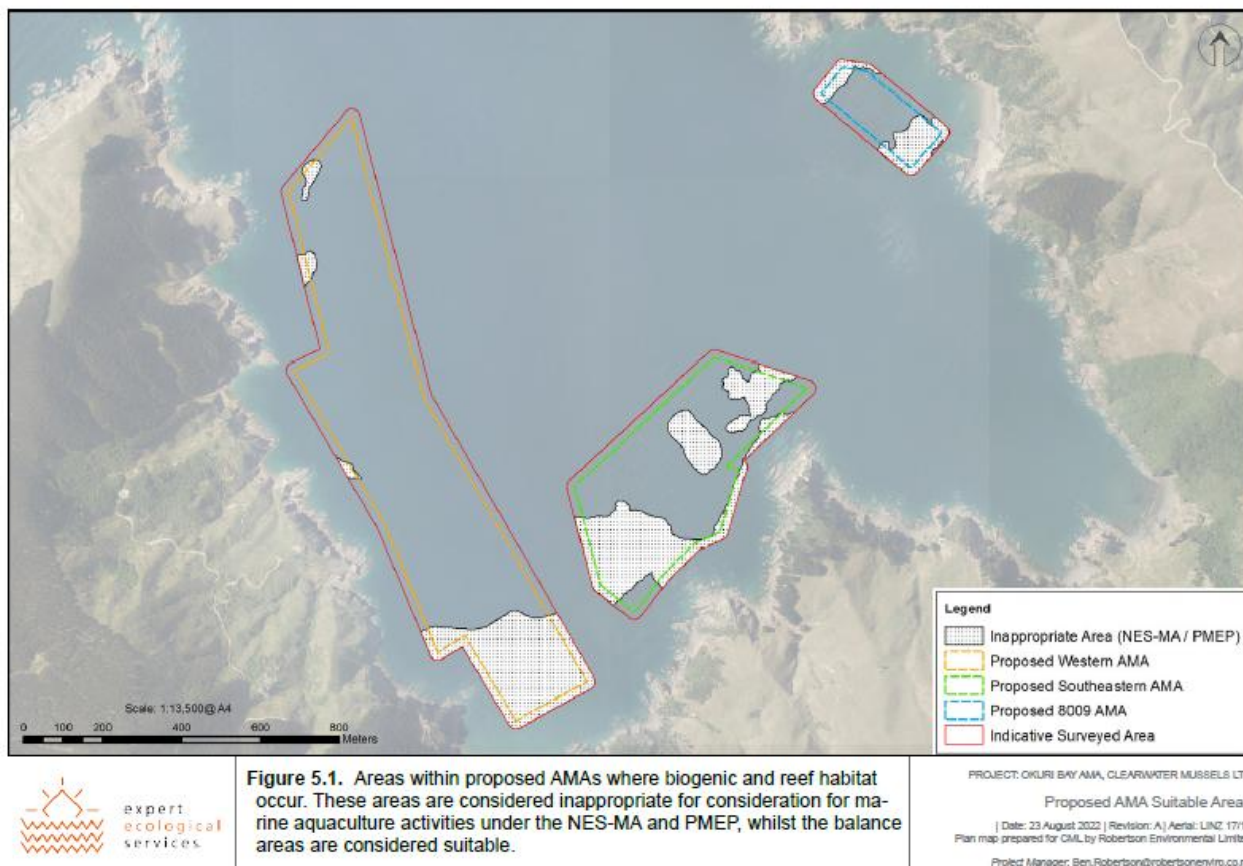


Figure 40 Areas of biogenic and reef habitat in relation to the proposal (note the application areas are located away from the identified habitat)

Robertson provided shape files to the applicant which then informed selection of the application sites. The adjustment is shown in the Okuri Bay landscape assessment (**Schedule D8**) and replicated here:



Figure 41 Revised site layout to avoid reef and biogenic habitat

With the site adjustment in place to avoid the areas of reef and biogenic habitat it can be concluded from the assessment that:

- The proposed sites are situated above soft sediment habitat and the relatively depauperate biological nature of the habitat, in this case dominated by a limited number of highly mobile fauna, means that it is unlikely that significant changes to ecology will occur.
- Indirectly, ecology in more distant habitats from the site (e.g. nearshore subtidal habitats) are also unlikely to be affected by the proposed activity given their distance from the vast majority of the site, relatively large extent, and moderate flushing potential driven by tides and periodic wind and wave action.
- No permanent loss of indigenous biodiversity values is expected to occur.
- Overall, it is considered that any effects resulting from the proposed activity will be relatively localised and therefore minor with regard to the wider marine receiving environment.

Seabed effects are expected to reverse in 5 to 11 years after the farm is removed.²⁰³

In summary, as the proposed site layout avoids the areas recorded as reef and biogenic habitat, the seabed is appropriate for mussel farming, and the seabed effects are considered to be **no more than minor**.

10.6 Landscape and Natural Character Effects

10.6.1 Introduction

A landscape, visual and natural character assessment was carried out by Josh Hunt of Narrative Landscape (**Schedule D8**)²⁰⁴. Brad Coombs of Isthmus has peer reviewed the assessment as set out in the Joint Memorandum provided as **Schedule D25**. The landscape assessment followed the New Zealand Landscape Assessment Guidelines – Te Tangi a te Manu considering physical, associative and perceptual attributes. The

²⁰³ Davidson, R.J., Scrimgeour, G.J., Richards, L.A. and Locky, D., 2024. Multi-spatial and temporal assessments of impacts and recovery of epibenthic species and habitats under mussel farms in the Marlborough Sounds, New Zealand. *Journal of Shellfish Research*, 43(1), pp.15-28. <https://www.researchgate.net/publication/389554576>

²⁰⁴ Narrative Landscape. Okuri Landscape and Natural Character Assessment (2026) (**Schedule D8**)

natural character assessment followed the framework set out within the Marlborough Landscape Study and associated natural character mapping in the MEP, evaluating natural character in terms of abiotic, biotic and experiential factors.

The assessment was informed by a site visit undertaken in December 2025.



Figure 42 Approaching the sites at Viewpoint B

10.6.2 Existing Landscape and Natural Character

The assessment summarises the existing environment in terms of a hierarchy of coastal landscape scales:

- At the broadest level, the site forms part of the Marlborough Sounds and Outer Marlborough Sounds, defined as *'a distinctive coastal landscape defined by drowned valleys, steep coastal landforms, indented shorelines, islands, headlands and strong land–sea relationships'*.
- At the Current Basin scale, Okuri Bay sits within a wider coastal marine area with Very High Natural Character values including *'rocky shores, reef and sediment habitats, high-flow environments associated with Current Basin and French Pass, and wider associations with seabirds and marine mammals'*. Modifications include aquaculture, coastal structures, commercial trawling offshore in Tasman Bay, and *'a modified terrestrial backdrop of pasture, forestry, regenerating vegetation, scattered buildings and limited road access'*.
- Okuri Bay itself is defined as a broad, generally U-shaped coastal basin enclosed by the Okuri Point / Okuri Hill, Orr Hill and Malvern Hill landforms, *'while maintaining an open relationship with the wider Current Basin waters'*.
- At the Okuri Bay and site coastline scale the receiving environment is more modified, including influence from pastoral land use, forestry, regenerating vegetation, scattered buildings, access tracks, roading and the existing Clearwater mussel farm.

The assessment finds that Okuri Bay *'retains important natural character attributes, particularly through its coastal landform, rocky shoreline, open water setting and varied marine habitats. However, its natural character is also moderated by existing terrestrial and marine modification, meaning the bay is best understood as a locally modified coastal embayment within a broader Very High Natural Character setting'*. Natural character sensitivity is described as variable therefore and the 'key assessment question is therefore whether the proposed marine farm would compromise the identified broader natural character values, rather than whether any additional marine farming would be inconsistent with the mapped overlay as a matter of principle'

10.6.3 Landscape Effects

Hunt finds that the proposal will introduce additional aquaculture structures into Okuri Bay and increase the visible working marine character of the local bay environment, but would not alter the underlying landform structure, coastal edge, broader land/sea relationship or wider Current Basin landscape context. At the wider landscape scale, landscape effects are assessed as very low to low, reflecting the limited extent of change within the broader area. At the local bay scale, effects are assessed as low to low-moderate, primarily due to the perceptual change associated with the additional marine farming structures.

10.6.4 Visual Amenity Effects

The farm will increase the visible extent of aquaculture within Okuri Bay, viewed both from within the bay and from some nearby landowner viewpoints. However, the low lying linear elements of the structure on the water service will be seen *'within a bay already characterised by productive land use, forestry, existing aquaculture and a modified working coastal backdrop.'*

Effects vary for adjacent landowners, the greatest potential effect for the *'low elevation building near the southern coastal edge'* with uncertain consent status which would have a relatively constrained viewshaft. Overall effects for landowners will be between very low and low-moderate with most properties experiencing very low to low effects.

Effects are generally lower for wider public and marine viewing audiences and assessed as very low to low.

The highest visual effects would occur for marine users within Okuri Bay. However, these will generally be transient *'and the structures would remain low profile and visually subservient to the surrounding landforms.'* These effects are assessed as low-moderate and, taking into account navigation lighting effects at night would be very low.

Overall, the proposal would be visible, resulting in localised visual change within Okuri Bay, but it would not become visually dominant within the wider landscape. Visual effects are therefore assessed as low-moderate at most, with most viewing audiences experiencing very low to low adverse effects.

10.6.5 Natural Character Effects

Hunt assessed natural character effects in relation to abiotic, biotic and experiential attributes:

- Abiotic effects are assessed as very low, as the proposal would not alter the underlying coastal landform, bay morphology, shoreline configuration, seabed morphology or broader Current Basin coastal processes.
- Biotic effects are assessed as low, having regard to the ecological assessment work and the refinement of the proposal in response to Robertson's identification of reef, biogenic habitat and other more sensitive marine ecological features.
- Experiential effects are the principal natural character effects, arising from the increased visibility and presence of marine farming structures within the bay. These are assessed as low to low-moderate at the local bay scale, reflecting a noticeable but localised reduction in perceived naturalness within an already modified working coastal environment.

At the broader mapped VHNC scale, the proposal will not compromise the open coastal waters, Current Basin context, rocky outcrops, wider marine values or broader outer Sounds seascape values that underpin the

overlay. Overall natural character effects are assessed as low to low-moderate.

10.6.6 Cumulative Effects

The assessment notes that Okuri Bay already contains an existing marine farm and that nearby Waikawa Bay contains additional aquaculture, both now authorised to remain until 31 December 2050. This proposal will increase the visible extent of aquaculture within Okuri Bay but would not introduce marine farming as a new activity type within this part of Current Basin. Having regard to the modified terrestrial backdrop, the existing aquaculture baseline, the low profile nature of the structures and the continued dominance of the enclosing landforms, cumulative landscape, visual and natural character effects are assessed low to low-moderate so no more than minor.

10.6.7 Landscape and Natural Character Effects Conclusion

Overall, the proposed Okuri Bay marine farm will result in localised landscape, visual and natural character change within Okuri Bay, but will not materially compromise the key landscape characteristics of the bay, the visual amenity of the wider receiving environment, or the broader values that underpin the VHNC overlay.

Hunt considers that the proposed farm blocks can be accommodated within Okuri Bay without compromising the identified landscape and natural character values of the receiving environment

Overall, it is considered that the landscape, visual and natural character effects will be **no more than minor**.

10.7 Customary Fishing Effects

As set out in **Section 6.17** the applicant has undertaken an initial assessment of effects on customary fishing using the best available information as follows:

Existing customary use and values	Okuri Bay is a bay within the Outer Sounds and sits within the customary food gathering area/rohe moana of Te Taihu iwi.
	The bay and the wider Te Aumiti / French Pass area supports customary gathering of finfish and kaimoana, but there are no mapped mātaihai, taiāpure or rāhui in the immediate footprint of the proposed farm.
	Ngāti Koata have described the wider Current Basin area as one where customary fishing is practiced. However, the species understood to be targeted are located over reefs and other biogenic habitat. The Iwi Management Plan of Ngāti Koata (2002) ²⁰⁵ states at 8.6 and 8.11(3): <i>8.6 Ngāti Koata culture and traditions involve fishing. Fishing is spiritual, ritual and traditional to Ngāti Koata. There are various rituals that we adhered to before we can enter and leave the domain of Tangaroa (Atua of the Sea). Recognition of Atua by Māori was achieved through the practice of Karakia, Kawa and Tikanga.</i> <i>8.11 Ngāti Koata will object when coastal development proposals have adverse effects on the following resources that can not be avoided, remedies or mitigated to Ngāti Koata satisfaction,</i> ... <i>3. Customary fishing grounds; ...</i>
	In the Statements of Association Ngāti Kuia describe Te Aumiti / French Pass, the neighbouring

²⁰⁵ Ngāti Kōata Trust. [Ngāti Kōata Trust Iwi Management Plan 2002](#) (June 2002).

	Rangitoto coast and nearby bays as a tightly connected seascape of pakohe industry, pā, kainga, urupā and tauranga ika, forming a key east–west travel route and reception/distribution area between Rangitoto and the mainland. In the Statements of Association Ngāti Koata and Ngāti Toa both portray the Rangitoto / French Pass–to–mainland corridor as part of their core coastal occupation and seafaring domain, with shared tukuwhenua, pā and intensive use of fisheries and trade routes across this stretch of Raukawakawa Moana.
Nature of effects	The EclA finds that the farm structures may have positive benefits for fish, there are no TAR species present and the overall effect will be negligible to low. The farm structures would exclude customary fishing from the seabed but customary fishing can continue in the water column between and around lines using small vessels, as occurs at existing mussel farms elsewhere in the Sounds. A recent MPI assessment for Outer Sounds farms indicated that for exposed, oceanic sites, the primary customary use is likely to be line fishing for pelagic and demersal finfish rather than intensive shellfish gathering in the farm footprint. The proposed 27.89 hectare farm footprint is small relative to the available customary fishing grounds in Okuri Bay and adjacent coastal waters. Shellfish farming does not deplete target customary species, and recent science and MPI decisions recognise that mussel farms may enhance habitat and local fish abundance, which can in turn support customary harvest at farm margins.
Proposed management response	The proposed conditions can ensure that customary fishers can safely navigate through or alongside blocks and continue to access customary species in the area.

Table 40 Okuri Bay customary fishing assessment

10.8 Proposed Conditions

Proposed consent conditions are set out in **Schedule F**. For Okuri Bay they require that management of debris including participation in the MFA beach cleaning programme. Vessels must not transit within 200 metres of any king shag colony. The site must be operated in accordance with an MMMP and a BMP both of which are provided in **Schedule E**.

10.9 Conclusion

The Okuri Bay application will provide 27.89 hectares of new mussel production water space at two sites in the cooler Outer Sounds with lower rates of rainfall closures than farms in the Pelorus Sound adding a diversity of options for growing mussels and supporting continuous factory supply.

NZIER finds that the site will support 1,095 GWT of production, with an equivalent production value of \$1.8 million and annual potential export revenue of \$6.5 million. Clearwater and Talley's will contribute \$10,000 per annum combined to community and restoration initiatives.

The potential environmental effects have been comprehensively assessed and are considered to be no more than minor. The EclA finds that cumulative ecological effects will be negligible in magnitude and very low overall. It is for iwi to determine cultural effects, however the initial assessment finds that effects on customary fishing will be no more than minor.

The site will be operated in accordance with industry best practice, and the proposed conditions provide appropriate mitigations including operation in accordance with the MMMP and the BMP. The proposed conditions also provide a placeholder for ongoing iwi engagement on effects on cultural values including mauri.

The Okuri Bay application will increase and smooth productivity for the industry and is consistent with the purpose of the FTAA.

Part 11 Richmond Bay

11.1 The Proposal

11.1.1 Overview

The applicants (MFA, PHR, Clearwater, Talley's and Apex) are collectively applying on behalf of Te Tauihu Iwi for resource consent to undertake marine farming activities using conventional longline structures at three sites totalling 42.17 hectares in Richmond Bay in Outer Pelorus/ Te Hoiere. This is a gift of the consent to iwi with no obligation for iwi to develop the site in any particular manner. The site location, site plan and layout plans are included in **Schedule A**.

The purpose of the application is to provide the eight Te Tauihu Iwi with consented shellfish and seaweed farming space. The primary purpose is the farming of Greenshell mussels but the application also includes all 'commonly consented' shellfish and seaweed species set out in Appendix 11 of the MEP.

As set out in **Section 5.5** the applicants have entered into an agreement with Maara Moana to transfer consent for the Richmond Bay sites to Maara Moana, including a process to execute that transfer.

11.1.2 Location

Richmond Bay is one of five large bays bordering the Waitata Reach in outer Pelorus Sound, Marlborough. The Bay encompasses approximately 500 hectares²⁰⁶ and lies on the southeastern side of the Sound. The Bay is open to the northwest towards Waitata Bay and bordered by Ketu Bay to the north and Horseshoe Bay to the south. Maud Island lies approximately 3.5km to the southwest, while Waihinu Bay and Port Ligar are located approximately 6km to the north.

The application covers three sites within Richmond Bay, two on the southern side and one on the north side. The coastline adjacent to the application sites is privately held and forms part of the foreign owned 2,120 hectare 'Pohenui Island'. While described as an island, the property is connected to the mainland by a thin isthmus at the head of Beatrix Bay. The Bay is not accessible by road.

11.1.3 Site Characteristics for Shellfish Farming

Situated within New Zealand's most important Greenshell mussel growing area, Pelorus Sound, Richmond Bay represents a proven location for mussel cultivation. Richmond Bay is sheltered, sufficiently deep, experiences moderate tidal flow and, due to its location in the outer reaches of Pelorus Sound, receives regular nutrient input to boost productivity from the greater Cook Strait. Furthermore, the applicants understand that the existing farms in the Bay provide consistent crop performance.

Richmond Bay is accessible for industry vessels in almost all weather conditions, and the location offers excellent proximity to the proposed Papatua nursery site where seed will be grown to support the crop production. Shore facilities and port infrastructure are available nearby in Elaine Bay and Havelock.

Approximately 48 hectares within Richmond Bay is consented for aquaculture, comprising six mussel farms and one salmon farm.

²⁰⁶ Conservatively calculated using [MDC Smartmaps](#) GIS tools.

The Robertson EclA in **Schedule D21** records the depth range as 15 to 30 metres.

11.1.4 Applicant

Maara Moana is a collective entity established to manage the aquaculture interests of the eight Te Taihū iwi (Ngāti Kūia, Rangitāne o Wairau, Ngāti Kōata, Ngāti Rārua, Ngāti Apa ki te Rā Tō, Ngāti Toa Rangitira, Ngāti Tama, and Te Ātiawa o Te Waka-a-Māui).

With the eight equal shareholdings owned by iwi directly through their Iwi Aquaculture Organisations or via commercial asset holding companies, Maara Moana is a significant water space owner in Te Taihū, with approximately 500 consented hectares in Tasman and Golden Bays and additional settlement obligations currently unfulfilled.

Maara Moana has provided a letter identifying they have a mandate from the eight iwi to secure the site and acknowledging the applicants' support for iwi aspirations in the region.

11.1.5 Activity Description

The application is to farm Greenshell mussels and all other 'commonly consented' shellfish and seaweed species set out in Appendix 11 of the MEP. The application comprises three proposed sites in Richmond Bay: one larger site (25.48 hectares) situated midway along the southern shoreline, and two smaller sites near the head of the bay, one on the southern side (9.09 hectares) and one on the northern side (7.6 hectares). It is for iwi to determine how they use the sites, but they are suitable for Greenshell mussel crop production, with spat sourced from dedicated nursery sites and on-grown to harvest size.

Spat will be sourced from nursery sites such as Papatua, Hāpuku Rock and Guards Bay and deployed at sizes of approximately 25–70 mm. For smaller mussels, a final seeding density intervention may be required, while larger mussels will be on-grown to a harvestable size of about 85–95 mm.

The application is for 72 conventional longline structures (screw anchors, warps, double backbones, floats and growing rope), within a combined footprint of 42.17 hectares. Based on site geometry, individual backbones will range from about 101–288 metres, with 36 lines on the larger southern site, 18 lines on the smaller southern site and 18 lines on the northern site, providing a total backbone length of 12,650 metres and droppers typically 10–15 metres long. Line spacings will range from approximately 22.88 to 24.2 metres, and backbones may be held at the surface or submerged to about 3 metres to manage wave energy and blue mussel settlement.

Orange mussel floats will be placed at the ends of each line and at the centre of the outside lines, with additional Aids to Navigation (including special marks and radar reflectors) under direction from the Harbourmaster, to ensure navigation safety. As with other mussel farms, the public will be able to fish, dive and tie up to the lines.

Conditions of consent will include beach cleaning requirements and operation in accordance with a Biosecurity Management Plan and a Marine Mammal Management Plan.

11.1.6 Project Delivery

As the Richmond Bay water space is being created for Te Taihū iwi, the development timeline will be for iwi to decide. The NZIER economic assessment (**Schedule D22**) assumes that all lines will be producing crop by Year 8.

11.2 Benefits

11.2.1 Production Supported, Indicative Export Value and Jobs Created

The Richmond Bay application sites, in conjunction with the nursery space offered at Papatua, have the potential to support the aquaculture aspirations of Te Taihū iwi.

Utilising Te Hiku seed sourced from Papatua, the Richmond Bay water space is expected to produce approximately 1,420 GWT per annum with an indicative export value of \$7.8 million and create around 15 FTE roles. If 100% hatchery seed is used, production could nearly double to 2,762 GWT per annum, increasing the indicative export value to \$16 million and supporting 31 FTE roles.

Importantly, many of the FTE roles could be taken up by iwi as well as being generated in provincial centres such as Havelock, contributing to both iwi and community prosperity.

For the purposes of the NZIER economic assessment (**Schedule D22**), it was assumed that 100% of the total installed lines would be seeded with Te Hiku seed in Year 1, with this allocation reaching a steady state of 80% Te Hiku spat and 20% hatchery spat by Year 5. At an 80:20 ratio, the production equates to **1,613 GWT per annum**.

11.2.2 Economic Impacts

NZIER finds that, based on an average expected production supported of 1,613 GWT the equivalent **production value will be \$2.7 million**, and the **annual potential export revenue will be \$9.6 million**.

11.2.3 Strategic Relevance

The Richmond Bay application demonstrates strong alignment with the ADP by enabling Māori led growth in aquaculture. The proposal also supports sustainable, inclusive, and export driven aquaculture growth.

11.3 The Existing Environment

The Richmond Bay application sites are set within the Marlborough Sounds High Amenity Landscape. They are adjacent to but not within an area of High Coastal Natural Character. They are not within an area of Outstanding Natural Character or Outstanding Natural Landscape. The absence of an outstanding or mapped marine natural character overlay is relevant context but does not mean the waters lack landscape or natural character values.

In his 30 January 2022 report, landscape architect James Bentley stated that:

- *'Richmond Bay is one of the largest bays in the Waitata landscape, measuring approximately 1.8km from The Reef peninsula to the south to a localised unnamed peninsula to the north, immediately south of Tapipi. The embayment has steep sided slopes which extend to 565masl in the south (Kauauroa) and 518masl in the north. Along with the salmon farm to the north of the bay, and two mussel farms, there is also a jetty at the head of the bay, three moorings immediately north of the jetty and one in an unnamed bay adjacent to farm 8204. The Pohuenui Lodge is located at the head of the bay with some areas of pastoral grazing present. Several tracks are also evident in the bay, along with powerlines skirting the southern enclosing ridge. Most of the land use of the bay is in a state of advanced*

regeneration.²⁰⁷

He continued:

- *'Having once been grazed, Richmond Bay displays strong regeneration around its outer northern and southern peninsulas, as illustrated on **Photographs 25, 29 and 30**. Wilding pines are evident; however, many are being actively targeted and poisoned. A pine plantation is evident towards the south of Richmond Bay and occupies a local 'V-shape' embayment, as illustrated as **Photograph 28**. The land around the Lodge is also modified for grazing, as can be seen in **Photograph 27**.*²⁰⁸

The native regeneration, dominated by mānuka and kānuka, has largely occurred over the last 30 years²⁰⁹ The first known commercial use of radiata pine was in 1941 when about 12 trees were cut at Pohuenui and towed to a mill in Havelock.²¹⁰ Despite recent clearance efforts pinus radiata remains the dominant land cover for the unnamed bay on Richmond Bay's southern shoreline and an apparent plantation north of the Pohuenui homestead. Honey is harvested from the mānuka and kānuka.²¹¹

The sites are located well away from any ESMS identified in the MEP, the nearest is Richmond Bay Reef which is at least 500 metres from the sites. The sites sit within the Marlborough Sounds Important Bird Area but not within a Marine Mammal Distribution Area in the MEP.

²⁰⁷ [Proposed Marlborough Environment Plan – Variation 1 & 1A Right of Reply from James Bentley, Technical author supporting s42A Reports \(Landscape and Natural Character\)](#) (32 January 2022).

²⁰⁸ Page 14.

²⁰⁹ NZ Herald 'Island' in Sounds goes for \$8.4m, 24 Aug 2002

²¹⁰ <https://www.nzffa.org.nz/farm-forestry-model/tree-grower-articles/may-2021/pine-forests-in-pelorus-sound-from-1900-to-1970/>

²¹¹ <https://manukahealth.com/blogs/articles/single-origin-pohuenui>

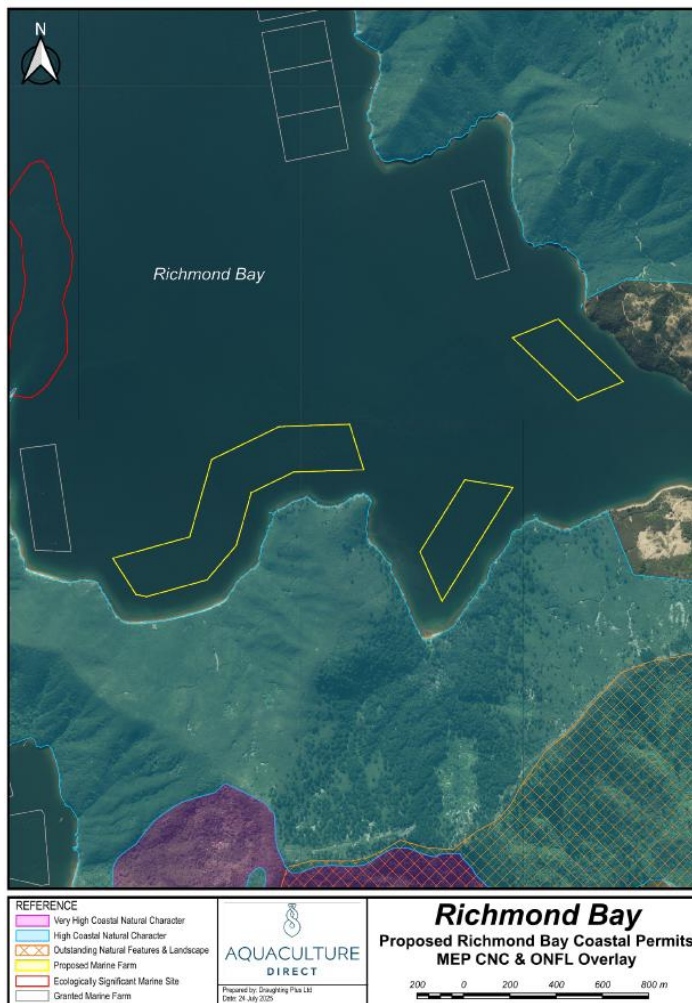


Figure 43 Richmond Bay MEP Overlays

The proposal is for three new farms in areas that had previously been identified by the MDC as potential AMAs²¹² in Variation 1 of the proposed MEP. The notified MEP provided for new AMAs to relocate existing farms from inappropriate locations. Richmond Bay was included as a preliminary assessment found it *'to be a suitable receiving environment'* for additional farms, particularly due to the history of extensive scallop dredging in the area and that from a landscape perspective the bay could support more aquaculture if carefully located. While the decisions panel declined to provide any new AMAs for relocation space the background information pertaining to the proposed sites provided an opportunity for this application to provide for new space for lwi in Richmond Bay.

The proposal has subsequently been fine-tuned utilising the indicative maps provided by the MDC ecological and landscape experts and supplementing these with a more detailed ecological assessment of the application sites. In that respect the sites are in strong alignment with MDC's intent for identification of new AMAs.

The Robertson EclA in **Schedule D21** records the ecological value of the Site ZOI as low and characterised by extensive, representative soft sediment with low structural complexity and no identified reef, biogenic habitat or other high-value benthic feature within the proposed consent areas. Horse mussel biogenic habitat and associated reef in close proximity characterises part of the Site ZOI and the Project ZOI. The Project ZOI also includes ESMS 3.36 the Richmond Bay Reef which is greater than 700 metres from the farm area.

²¹²Marlborough District Council, [Variation 1 Schedule Changes](#) (MDC, last accessed 16 July 2026).

All other ecological values are similar to those at each of the sites, and summarised in **Section 11.4**.

The Marlborough Sounds Cruising Guide notes options for anchoring in small coves and bays depending on the wind direction and general suitability in north to northeast winds. Pohuenui Island²¹³ and particularly the homestead at the head of Richmond Bay is available for rent. The farms have been located so as to minimise views from the homestead.

There are no MEP mapped heritage sites or heritage trees and no archaeological sites listed on the ArchSite in the vicinity of the proposed farm.

11.4 Site Specific Effects Summary

An overview of effects with applicable references is provided in Table 41 below. Site specific effects that warrant further detail are set out in the following subsections.

Effect	Assessment	References
Positive effects	The proposal will create a range of economic, social, cultural and ecosystem benefits.	Part 5 Project Benefits NZIER Economic Assessment (Schedule D22) Project Coastal Ecological Assessment 2026 (Schedule D21)
Seabed	- Site specific seabed effects are set out in detail in Section 11.5 below. - In summary, as the proposed site layout avoids areas of reef and biogenic habitat, the seabed is appropriate for mussel farming, and the seabed effects are considered to be no more than minor.	Section 11.5 Seabed Effects Richmond Bay Ecological Assessment 2025 (Schedule D12) Project Coastal Ecological Assessment 2026 (Schedule D21)
Water column	- There will be negligible water column effects. Typically, little if any effects are detectable beyond the boundaries of the farm and the proposed site is in a well flushed environment. - The effects of mussel farms are relatively insignificant compared to other terrestrial and regional oceanographic drivers. - It is not anticipated that there would be any adverse cumulative water column effects from the project.	Section 6.6 Water Column Effects Cawthron Mussel Farm Plankton Report 2020 (Schedule I3) Richmond Bay Ecological Assessment 2025 (Schedule D12) Project Coastal Ecological Assessment 2026 (Schedule D21)
Marine mammals	- Effects on marine mammals are expected to be no more than minor. - Mussel farms have been coexisting with marine mammals since the inception of the industry. - The site will be operated in accordance with the A+ Sustainable Management Framework and the MFA ECP thereby ensuring that all best practices are followed to minimise the chance of marine mammal interactions. - The site will be operated in accordance with an MMMP as set	Section 6.7 Marine Mammal Effects Marine Mammals Letter 2026 (Schedule D20) Richmond Bay Ecological Assessment 2025 (Schedule D12) Project Coastal Ecological Assessment 2026 (Schedule D21)

²¹³ [Private Islands for rent - Pohuenui Island - New Zealand - Australia & New Zealand](#)

Effect	Assessment	References
	out in the proposed consent conditions.	Marine Mammal Management Plan (Schedule E1) and Proposed Conditions (Schedule F)
Seabirds	- Effects on the endangered king shag are not anticipated. - Recent studies show that king shag have individual foraging preferences. Some prefer to forage in marine farms, and the birds frequently use marine farms as roosting sites for rest or to digest their food. - No adverse effects on other seabirds are anticipated.	Section 6.8 Seabird Effects
		Seabirds Letter 2026 (Schedule D19)
		Richmond Bay Ecological Assessment 2025 (Schedule D12)
		Project Coastal Ecological Assessment 2026 (Schedule D21)
Biosecurity	- There will be no more than minor biosecurity effects. - Any residual effects will be mitigated to the extent practical by the applicant operating biosecurity best practices set out in the A+ Sustainable Management Framework. - The site will be operated in accordance with a BMP as set out in the proposed consent conditions.	Section 6.10 Biosecurity Effects
		Project Coastal Ecological Assessment 2026 (Schedule D21)
		Biosecurity Management Plan (Schedule E3) and Proposed Conditions (Schedule F)
Fisheries resources	- The farms are sited over soft sediment which does not comprise important habitat for fish. - Mussel farming can provide benefits for pelagic and benthic species of both conservation and commercial importance.	Section 6.10 Fisheries Resources Effects
		Project Coastal Ecological Assessment 2026 (Schedule D21)
Landscape, and natural character	- Richmond Bay specific landscape and natural character effects are set out in detail in Section 11.6 below. - In summary the landscape and natural character effects are considered appropriate in the context of the Richmond Bay setting.	Section 11.6 Landscape and Natural Character Effects
Amenity	- Richmond Bay specific visual amenity effects are set out in detail in Section 11.6 below. - In summary, visual effects are expected to be appropriate in the proposed location. - The main noise generated is during harvest, which occurs infrequently and over relatively short periods. There are limited numbers of dwellings in the vicinity, and noise will be within the limits set out in the MEP. - Industry best management practices will be followed to minimise amenity effects.	Section 6.12 Amenity Effects
		Section 11.6 Landscape and Natural Character Effects
Security of Structures and Debris	- A condition requiring cleaning of beach debris is also proposed. - Taken overall, with the best management practices in place, the farm will be operated with structural integrity, and effects from debris will be no more than minor.	Section 6.13 Security of Structures and Debris

Effect	Assessment	References
Navigation, Public Access and Recreation	- There will be no more than minor navigation effects. The farm will be installed and marked in a manner that enables safe navigation through and around the farm. - The farm blocks are sited in a manner that allows for navigation to and along the shore. Public access to the sites will still be enabled. - Effects on fishing are not anticipated but will be appropriately assessed by MPI. Navigation through and around the farm for fishing vessels will be enabled. Effects on fisheries resources will be no more than minor and, in some respects, positive. - Any residual effects will be mitigated to the extent practical by the applicant operating industry best practices. - Mussel farms are known to have positive effects for recreational fishing. - The homestead at the head of the bay is available for rent as a tourist operation. As noted in Section 11.6 the difference between the proposal assessed as appropriate by Mr Bentley and this proposal is that the proposed marine farms avoid the area adjacent to the homestead. Given the re-siting of the proposed farms there is unlikely to be any material impact on the number of visitors who visit Pohuenui Island.	Section 6.14 Navigation and Public Access Effects
		Section 6.15 Recreation and Tourism (including Fishing) Effects
Cultural Effects	- It is for iwi to determine cultural effects. - The site is not within a formal mātaihai, taiāpure or rāhui area. It is subject to applications under MACAA. - During engagement with pou taiao cumulative ecological and cultural effects were raised as the key concern noting that cultural values are intrinsically linked to ecological health. - The applicant anticipates ongoing engagement with iwi on this application and the resulting activity.	Section 6.16 Cultural Effects
Customary Fishing Effects	It is for iwi to determine effects on customary fishing however the EclA supports the applicants' initial assessment (set out in Section 11.7) that effects on customary fishing will be no more than minor.	Section 11.7 Customary Fishing Effects
Historic heritage	The historic heritage effects are considered no more than minor.	Section 6.18 Historic Heritage Effects
Cumulative	- The cumulative ecological effects will be negligible in magnitude and very low overall. - The application generally aligns with the policies that guide the identification of new space (AMAs) in the MEP.	Section 6.19 Cumulative Effects
		Project Coastal Ecological Assessment 2026 (Schedule D21)

Table 41 Richmond Bay effects summary

11.5 Seabed Effects

An assessment of the seabed was carried out by Robertson Environmental in 2025 to update and extend the previous assessment and is provided in **Schedule D12**.

The Robertson assessment comprised a seabed characterisation component involving sonar survey, ground-truthing with images, and data processing and interpretation. A desktop review considered known datasets on landforms, marine farms (MDC's Smart Maps database), climate, and topography of the site the use of aerial photographs, and to a lesser extent the New Zealand Land Cover Database version five (LCDB5).

Robertson recorded that no known historical reports have studied the application site, but nearby assessments generally reported soft sediment habitat.

Robertson recorded the following ecological observations at the application site:

- The benthic habitat below the proposed consent area is dominated by soft sediment habitat. Coverage of natural shell material is generally very low, with predominantly less than 5% cover. No mussel shell debris was observed.
- No reef habitats (as defined in the NESMA) were present within 20 m of the site boundaries, with the exception of a small outcrop located approximately 10 m inshore of Area A.
- The abundance of biogenic habitat is expected to be very low, which aligns with the typically low diversity found in sheltered, soft bottom habitats in the Marlborough Sounds and adjacent parts of Richmond Bay. Indeed, no biogenic habitat was observed in video footage or still imagery collected from the seabed within the site.
- Epibenthic macrofaunal species observed at relatively low densities included sea cucumber, finger sponge, cushion star, eleven-arm sea star. Individual scallops, horse mussels and calcareous worm tubes (non-mounding) were occasionally observed. Additionally, small holes—presumably created by infaunal organisms and fish—were visible at the sediment surface throughout much of the surveyed area.
- No biogenic habitats, as defined in the NESMA, were identified within 20 m of the site.
- The soft sediment habitat within and around the site is considered to have low ecological value due to its low diversity, richness, and abundance, and the predominant absence of TAR or regionally significant species.
- The site itself is not designated as regionally or nationally significant, and there are no mapped ESMS in close proximity in the MEP.

Robertson provided habitat maps of the three application sites:

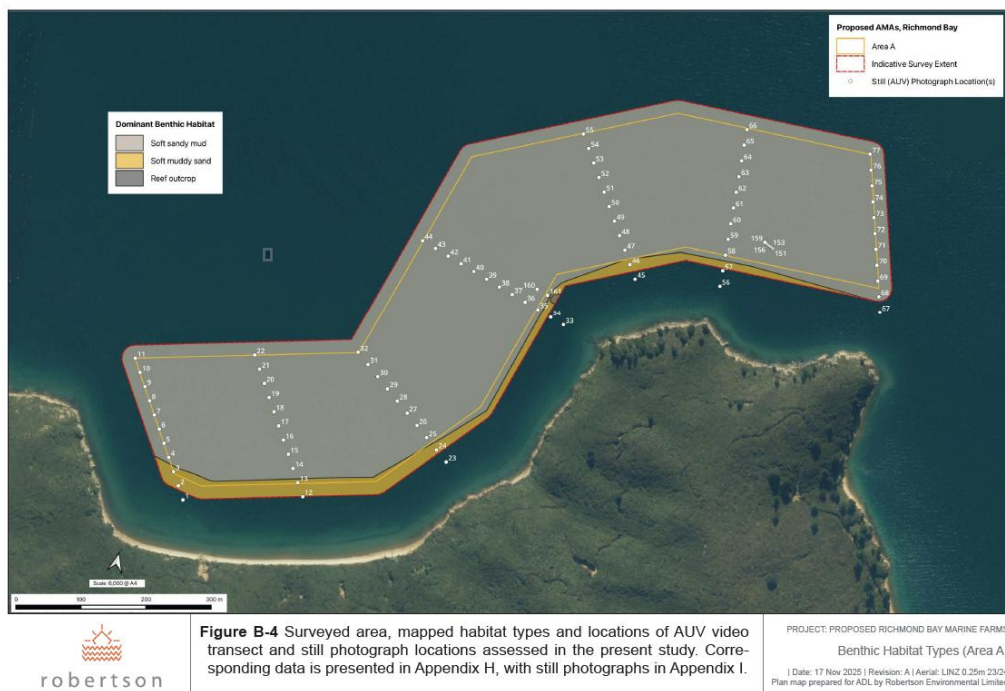


Figure 44 Habitat map of the western site

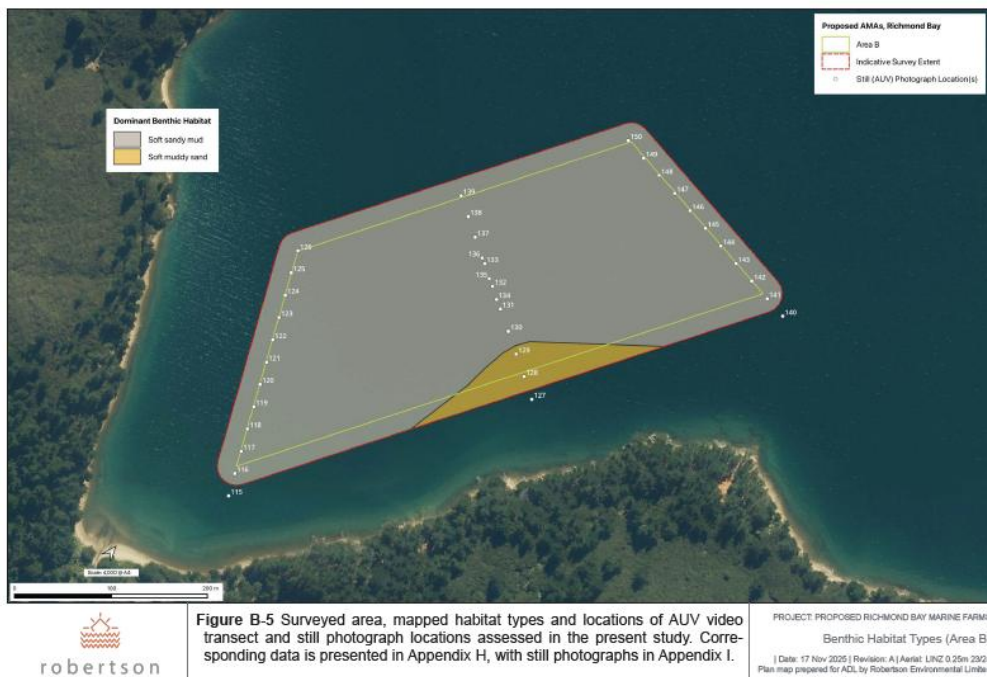


Figure 45 Habitat map of the southern site

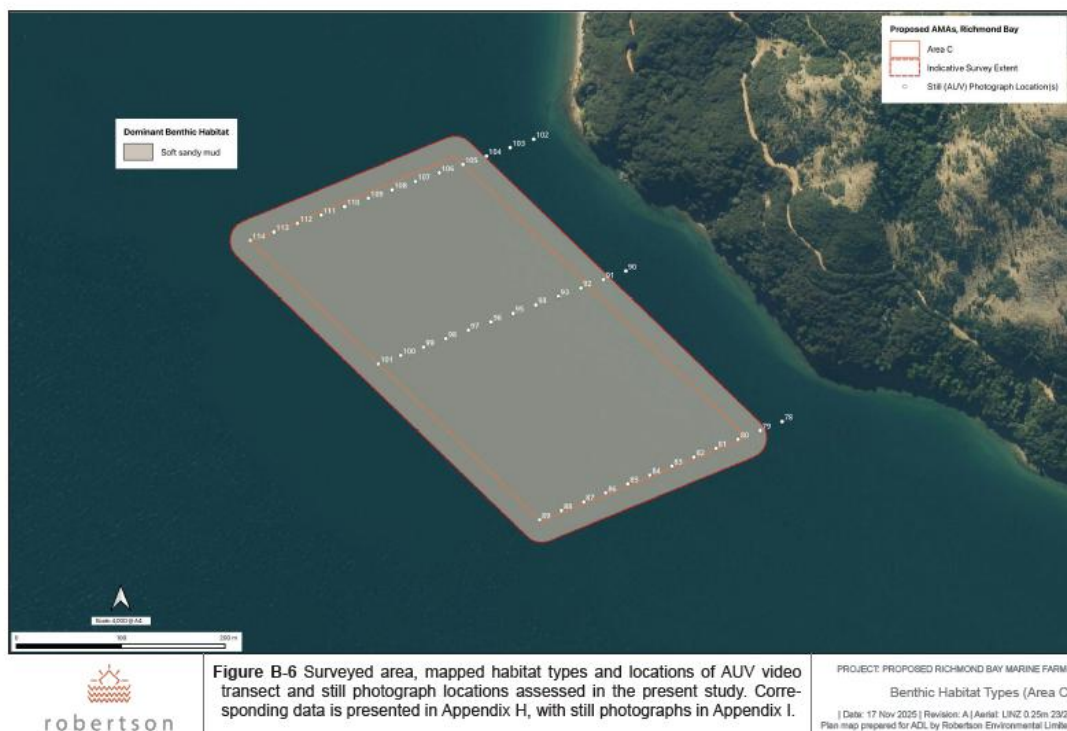


Figure 46 Habitat map of the eastern site

Robertson concluded that:

- The proposed consents sit over soft substratum lacking any notable ecological values. Notably, no hard substratum, characterised by reef or biogenic habitats, is found within 20 metres of the site, with the exception of a small outcrop located approximately 10 metres inshore of Area A. Given that the outcrop is inshore of the proposed farm, is of limited extent, and is situated outside of the proposed farm footprint area, the proposal is unlikely to have any appreciable effect on this feature.
- No ecological features were identified within the proposed site with a moderate or higher level of effect so no growing structures exclusion areas are deemed necessary.
- Overall, the proposed activity presents negligible impacts on ecological values, and no permanent loss of indigenous biodiversity values is expected to occur.
- In the long term, the establishment of the farm's physical structure, functioning as an artificial reef system via mid water habitat creation and benthic habitat creation via deposited materials, may generate positive ecological outcomes, including increased local species diversity and improved water clarity.

Seabed effects are expected to reverse in 5 to 11 years after the farm is removed.

In summary the seabed is appropriate for mussel farming and the seabed effects are considered to be **no more than minor**.

11.6 Landscape and Natural Character Effects

As noted above the Natural Character Study and Landscape Study undertaken by MDC in 2014 and 2015 did not engage with iwi at all. While iwi were consulted in respect of the plan as a whole a number of Te Taihū iwi made the submission that that consultation was inadequate. The plan even now records that no consultation occurred in respect of landscape²¹⁴ and the same is understood to be the case in respect of natural character.

²¹⁴ Volume 3, Appendix 1 – [Landscape Schedule of Values](#). pg. 1.

The MDC landscape expert James Bentley stated²¹⁵:

- *'I recognise that further aquaculture development will change the landscape and natural character qualities and characteristics of Richmond Bay. The bay is large enough to support some further development, however that new development will need to be carefully located'.*

Again, that statement was made without the benefit of any iwi input.

Mr Bentley indicatively supported approximately 46.5 hectares of additional marine farming within the bay, compared with 42.17 hectares in the current proposal. Mr Bentley proposed locations which differ from those identified in this application.

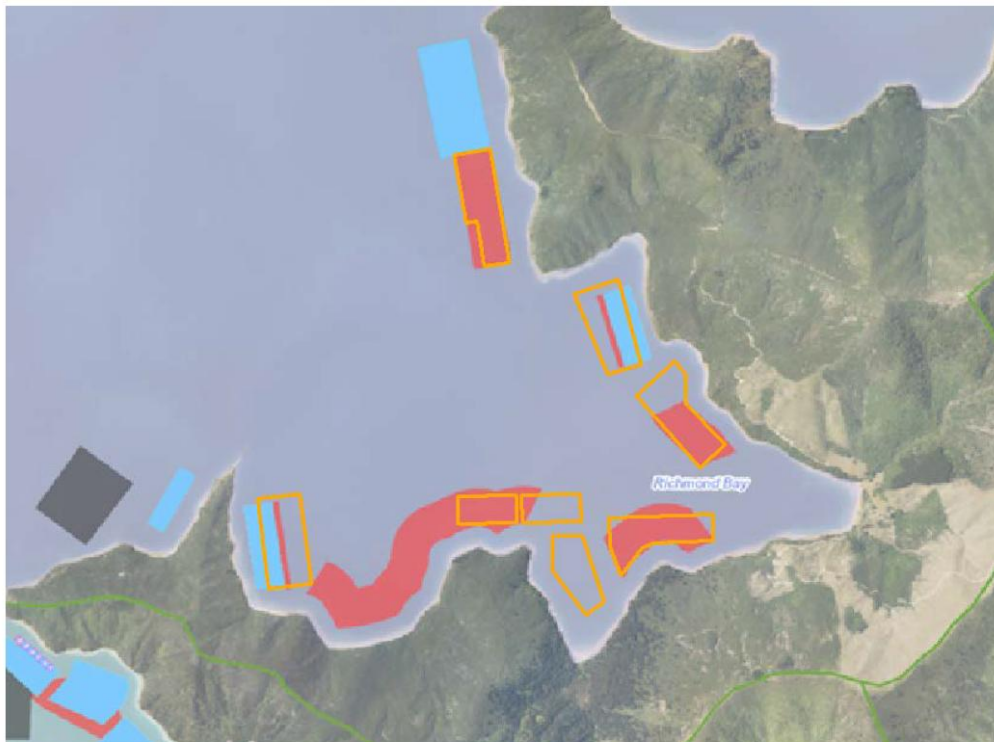


Figure 2: Map taken from MDC Smart Maps' proposed AMAs and modified with 'orange boxes' to indicate where I support limited aquaculture development in this bay.

Figure 47 Map showing MDC proposed AMAs in red and Bentley's modified AMAs in orange

Mr Bentley's image shows red AMA areas as proposed in the notified MEP. This proposal

- Largely adopts Mr Bentley's area for the (north)eastern site
- Largely adopts Mr Bentley's area for the southern site, adjoining a pine plantation
- Adopts the western site as proposed by MDC, which includes Mr Bentley's western most site
- Does not adopt the MDC or Mr Bentley's southeastern most site, on the basis that that would be constraining at the head of the bays
- Does not adopt Mr Bentley's proposed extension to site 8204, on the basis that that parent site is owned by an independent third party.

Mr Bentley did not support the entire extent of the western site as proposed by MDC on the basis that *'providing a break of aquaculture along the mid-southern coast where land regeneration appears strong and the foreshore*

²¹⁵ [Proposed Marlborough Environment Plan – Variation 1 & 1A Right of Reply from James Bentley, Technical author supporting s42A Reports \(Landscape and Natural Character\)](#) (32 January 2022).

appears to support a sandy beach.' The beach reduces to a thin strip at high tide.²¹⁶

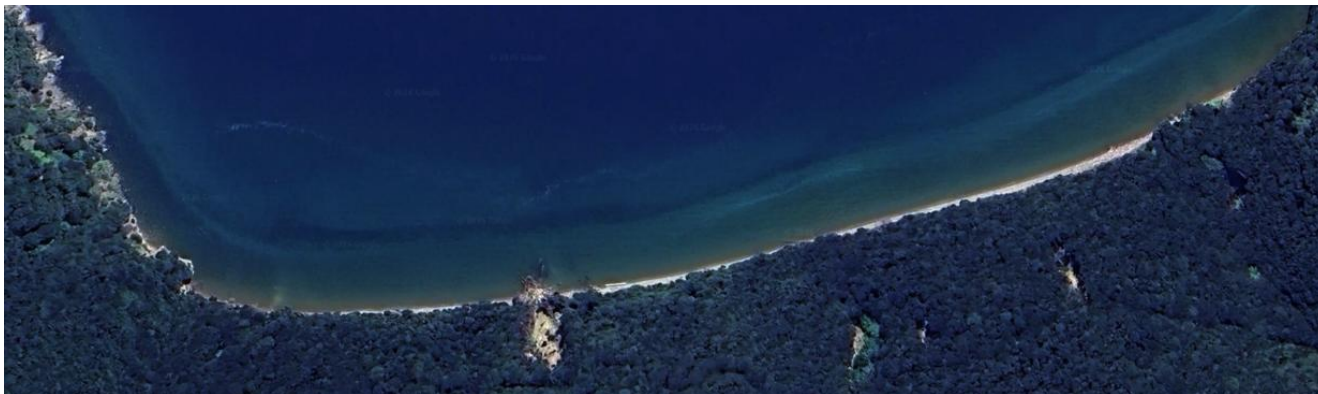


Figure 48 Aerial image of the thin sandy beach inshore of the western site

The presence of the marine farm will not prevent enjoyment of the beach. If recreation in the absence of marine farms is sought, neighbouring Ketu Bay is free from marine farms, as is Maud island²¹⁷ and Apuau Channel on the adjacent shore, as is Tennyson Inlet (much of which was never cleared of indigenous bush) slightly further afield.

That proposed layout would have marine farms towards the head of the bay and adjacent to the Pohuenui Island Homestead. The consequence of that is that a greater portion of the farm will be located adjacent to slopes mapped in the plan as having high natural character. The waters of the bay are not mapped as having high natural character, nor are they mapped as being in an outstanding natural landscape. There is no outstanding natural character anywhere in the vicinity.

A substantial number of farms in the outer Marlborough Sounds are either in or adjacent to areas of high natural character. Examples of that are large parts of Beatrix Bay, Horseshoe Bay and Eastern Forsyth Bay. Marine farming requires high water quality. That high water quality is more likely to be found adjacent to areas regenerating native bush. Plan provisions discourage the locating of marine farms adjacent to residences.²¹⁸

The presence of additional marine farms has been accepted as appropriate in this general location. The application has been made to locate farms away from the residents of the head of the bay. The existing farms in Richmond Bay provide a clear indication of the likely level of effects may be more than minor range up to significant within 300-500 metres away from the farm but more like minor beyond that.²¹⁹ Those that might chose to recreate on the beach in the unnamed bay southeast of 'The Reef' and would prefer to do so without a marine farm present would lose that amenity.

Mr Bentley's analysis does not take into account the landscape and natural character views of iwi.

In terms of the statutory test, the Panel must assess whether the amenity, landscape and natural character

²¹⁶ Google Earth Photograph 31 Oct 2023. Distance between the landslide features towards the center of the image is approximately 100m.

²¹⁷ Access by permit only

²¹⁸ *Clova Bay Residents Association Incorporated v Marlborough District Council* [2026] NZEnvC 217 at [185].

²¹⁹ *R J Davidson Family Trust v Marlborough District Council* [2016] NZEnvC 81 at [217], *Clearwater Mussels Ltd v Marlborough District Council* [2018] NZEnvC 88 at [206], *Kuku Mara Partnership (Admiralty Bay West) v Marlborough District Council* (2005) 11 ELRNZ 466 at [29]

effects (such that they are found to be) are '*sufficiently significant to be out of proportion to the project's regional or national benefits that the panel has considered*'.

There is evidence that the farms, with the exception of the western extent of the western farm, are supportable under a conventional RMA analysis, even before the views of tangata whenua are considered. The presence of the marine farm will not prevent enjoyment of the beach in the unnamed bay, save for recreation in the absence of a marine farm in the immediate vicinity.

In summary, the applicants consider the farms are appropriately sited with respect to landscape, natural character and visual effects subject to the views of iwi.

11.7 Customary Fishing Effects

As set out in **Section 6.17** the applicant has undertaken an initial assessment of effects on customary fishing using the best available information as follows:

Existing customary use and values	Kōpua Richmond Bay is a bay in Waitata Reach in Outer Pelorus Sound / Te Hoiere and sits within the customary food gathering area/rohe moana of Te Taiuhu iwi.
	The bay and the wider Pelorus Sound / Te Hoiere supports customary gathering of finfish and kaimoana, but there are no mapped mātaimai, taiāpure or rāhui in the immediate footprint of the proposed farm.
	In the Statements of Association Ngāti Kuia specifically identify Kōpua (Richmond Bay) as a pā and kāinga with cultivations and associated urupā within their Te Hoiere settlement network, alongside nearby sites at Tawhitiui and other Pelorus bays.
	In the Statements of Association Ngāti Toa place Te Hoiere within a chain of coastal settlements and fisheries linked to their Cook Strait trading and travel system.
Nature of effects	The EclA finds that the farm structures may have positive benefits for fish, there are no TAR species present and the overall effect will be negligible to low.
	The farm structures would exclude customary fishing from the seabed, but customary fishing can continue in the water column between and around lines using small vessels, as occurs at existing mussel farms elsewhere in the Sounds.
	A recent MPI assessment for Kōpua Richmond Bay ²²⁰ farms indicated that the likely effect of the proposed that site on customary fishing is small given the amount of fishing activity known to occur within the site relative to the wider Marlborough Sounds and that not all customary fishing methods would be excluded from the site.
	The proposed 42.2 hectare farm footprint is small relative to the available customary fishing grounds in Te Hoiere and adjacent coastal waters.
	Shellfish farming does not deplete target customary species, and recent science and MPI decisions recognise that mussel farms may enhance habitat and local fish abundance, which can in turn support customary harvest at farm margins.
	While concerns have been expressed about cumulative effects there is no scientific evidence to indicate the proposed farm would have measurable impacts on the water column. It is well understood that mussel farming effects are difficult to detect in the context of the ENSO cycle and a

²²⁰ Fisheries New Zealand., [Aquaculture Decision for coastal permit U241190 in Richmond Bay, Pelorus Sound](#) (14 April 2025).

	range of environmental stressors from the sea and the land. Expansion of shellfish aquaculture has no impact on wild mussel settlement rates ²²¹ .
Proposed management response	The proposed conditions can ensure that customary fishers can safely navigate through or alongside blocks and continue to access customary species in the area.
	Iwi will have full autonomy over the operation of the site and can manage any effects on customary fisheries according to tikanga.

Table 42 Richmond Bay customary fishing assessment

11.8 Proposed Conditions

Proposed consent conditions are set out in **Schedule F**. For Richmond Bay they require management of debris including participation in the MFA beach cleaning programme. Vessels must not transit within 200 metres of any king shag colony. The site must be operated in accordance with an MMMP and a BMP both of which are provided in **Schedule E**.

11.9 Conclusion

The Richmond Bay application will provide 42.17 hectares of consented shellfish and seaweed farming space at three sites in a proven mussel growing area in the Outer Pelorus Sound/Te Hoiere for iwi. The site has been provided by the other five applicants as a gift to the eight Te Taihū iwi through Maara Moana, with no obligation for iwi to develop the site in any particular manner. The 17.7% of nursery lines at Papatua will be sufficient to stock the space.

NZIER finds that the site will support 1,613 GWT of production, with an equivalent production value of \$2.7 million and annual potential export revenue of \$9.6 million.

The potential environmental effects have been comprehensively assessed and for the most part effects will be no more than minor. The available information supports a finding that the farms are appropriately sited with respect to landscape, natural character and visual effects subject to the views of iwi.

Cumulative ecological effects will be negligible in magnitude and very low overall. Effects on cultural values including mauri can be managed through tikanga.

The site will be operated in accordance with industry best practice, and the proposed conditions provide appropriate mitigations including operation in accordance with the MMMP and the BMP.

The Richmond Bay application provides a new iwi owned site, enables Māori led growth in aquaculture and is consistent with the purpose of the FTAA.

²²¹ Toone, T., et al. (2022) [Expansion of shellfish aquaculture has no impact on settlement rates](#). Aquaculture Environment Interactions, 14, 135-145

Part 12 Onapua Bay

12.1 The Proposal

12.1.1 Overview

Apex Marine Farms Limited (Apex) is applying for resource consent to undertake flat oyster farming, mussel production farming and seaweed farming using conventional longline structures at three sites totalling 15.73 hectares at Onapua Bay in Tory Channel/Kura Te Au. The site location, site plan and layout plans are included in **Schedule A**.

The purpose of the application is to provide space to develop the high value flat oyster (*Ostrea chilensis*) aquaculture industry including providing for year class separation to ensure best practice biosecurity and respond to climate change. As the proposal also includes the farming of Greenshell mussels and seaweed species the application species include all 'commonly consented' shellfish and seaweed species set out in Appendix 11 of the MEP. Note that flat oysters are included in Appendix 11.

Apex is also seeking consent to harvest (not cultivate) the wakame seaweed species *Undaria pinnatifida* (Undaria) which is an unwanted species under the Biosecurity Act but prevalent in Tory Channel and consented on a number of other farms in the area.

Apex made an application for a private plan change and resource consent to farm the sites in January 2017 after identifying the need to undertake single year class farming of flat oysters in response to Bonamia. Apex compiled a comprehensive Operations Report to inform that application which is updated and provided in **Schedule I5**²²².

In October 2017 Apex entered into an MOU with MDC to set up a Technical Advisory Group (Onapua TAG) process to consider whether the sites could be considered as AMAs in the proposed MEP. The subsequent report in 2019 recommended Sites B and C be progressed as part of the MEP²²³. A group of predominantly bach owners subsequently made submissions and gave evidence opposing the AMAs. Apex provided legal submissions, ecological, landscape, navigational and operational evidence. The MEP Panel ultimately declined the proposal identifying landscape and natural character and visual and recreational amenity as key issues²²⁴. While this application is being made in a separate consenting context, the assessment of environmental effects for Onapua Bay draws on evidence given during the MEP hearings.

12.1.2 Location

Onapua Bay sits at the western end of Tory Channel, the passage of water separating Arapawa Island from the South Island and connecting the Cook Strait to Queen Charlotte Sound. To the west Queen Charlotte Sound extends northward to the Northern Entrance and southwest towards Waikawa, Picton and the Grove Arm. Port Underwood lies over the ridge to south. Onapua Bay lies on the southern side of Tory Channel, with Hītua Bay immediately to the west and Erie Bay immediately the East.

²²² Hearn. B. (2017 and updated 2026). Onapua Bay Operations Report (**Schedule I5**)

²²³ Perception Planning., (2019) [Technical Advisory Group \(TAG\) Report: Recommendation for the inclusion of an aquaculture management area \(AMA\) in the Proposed Marlborough Environment Plan \(PMEP\) within Onapua Bay, Tory Channel](#)

²²⁴ [Decision and Report Apex Marine Farm Limited – Submission Point 112.15 to Variation 1 of the Proposed Marlborough Environment Plan](#) (28 April 2023).

Onapua Bay is long and narrow, approximately 0.6km wide at the entrance and extending southward for approximately 1.5km, before tracking away to the southeast for a further 1.8km. The smaller embayments of Tawa Bay, Ōpua Bay and Missionary Bay can be found at the head of Onapua Bay. Including these sub-bays, Onapua Bay encompasses approximately 250 hectares²²⁵.

12.1.3 Site Characteristics for Shellfish Farming

The Tory Channel area is characterised by strong tidal flows and complex hydrodynamics. Spring tide currents exceed 2 m/s, making them among the most powerful tidal currents in the world²²⁶. This tidal activity, combined with a direct connection to Cook Strait, results in consistently cooler water temperatures relative to the Pelorus and Queen Charlotte Sounds. When combined with the regular influxes of well mixed, nutrient rich oceanic water to boost primary productivity, Tory Channel boasts favourable conditions for certain forms of aquaculture. While Onapua Bay does not experience the same level of tidal exchange as Tory Channel, the applicant maintains that the proposed water space is well suited to flat oyster cultivation.

In addition, research commissioned by the applicant indicates that the presence of salmon farms in Tory Channel enhances nutrient availability in the adjoining side bays, thereby increasing primary production²²⁷.

Onapua Bay is less than 18km from the extensive wharf infrastructure at Picton and Waikawa and is accessible for farming vessels in almost all weather conditions. As Tory Channel does not directly receive freshwater from any major river systems, the 1521a growing area (which encompasses Onapua Bay) has the highest rainfall criteria in the Marlborough Sounds, meaning rainfall related harvest closures are extremely rare.

The Robertson EclA in **Schedule D21** records the depth range as 10 to 20 metres.

12.1.4 Applicant

The Hearn family name is synonymous with both mussel farming in Marlborough and the Port Underwood/Tory Channel area. Entering the industry in 1973, Bruce Hearn is widely recognised as one of the pioneers of the New Zealand industry having obtained marine farming license number two in Nikau Bay, Pelorus Sound, in April of 1976.

Today, the Hearn family business, Apex, owns and operates 12 mussel farms in the Pelorus Sound, Tory Channel and Port Underwood. In addition, Apex supplies mussel spat to 2 companies and manages 7 mussel farms on behalf of others. The company employs 4.5 FTE staff.

As a company they supply of oysters for community events such as Dinner for Kaipupu Point Sounds Wildlife Sanctuary, dinner prizes for St Marks Adult Alcohol and Drug Treatment Centre, Queen Charlotte Yacht Club special events and sponsor for 'Give a Little' donations for local youth.

Apex have been experimenting with flat oyster cultivation since 1985. Between 2006 and 2013, the company was successfully servicing the domestic market (principally high end restaurants), via the Tio Point Oysters brand. Apex had also undertaken international market validation via the supply of small quantities of oysters to Canada

²²⁵ Conservatively calculated using [MDC Smartmaps](#) GIS tools.

²²⁶ Stevens, C., and Chiswell, S., [Oceans currents and tides](#) (Te Ara).

²²⁷ Davidson, R., Biological report for a marine farm application located in Onapua Bay, Tory Channel (report number 827, January 2016, Davidson Environmental Limited). (**Schedule D14**).

and the USA in 2015, along with visiting restaurant clients along the West Coast of the United States in 2014.

Having made significant advances in growing methods and farming practices, it was only the emergence of *Bonamia ostreae* (Bonamia) and the subsequent notice to cease farming in 2017 that halted the momentum of Apex's flat oyster business.

12.1.5 Activity Description

The application is to farm native flat oysters (*Ostrea chilensis*) and other 'commonly consented' shellfish and seaweed species listed in Appendix 11 of the MEP. The application is also to harvest the unwanted species *Undaria pinnatifida*. Farming of flat oysters and Undaria will be subject to separate Biosecurity Act permissions as set out in **Section 12.6** below.

The application covers three distinct sites within Onapua Bay, all situated on the northern shore and totalling 15.73 hectares. The primary intention is to use the sites for flat oyster grow out, deploying locally caught spat and on-growing to harvest size for high value markets. The sites will also be used for cultivating mussel spat and small mussels as a biological filtration countermeasure, and for the cultivation of a variety of seaweed species.

The farm layout will accommodate conventional mussel farming backbones ranging from 61 m to 215 m in length, tailored to the geometry of each site. Growing lines will use conventional longline structures comprising anchors, warps, double backbones, floats and growing ropes.

Apex has developed novel flat oyster cultivation methods adapted from Japanese longline scallop technology; the combination of catching directly onto culture ropes, adopting Japanese pinning methodology, and subtidal farming practices is expected to markedly accelerate oyster growth and reduce manual labour. On flat oyster lines, spat will be caught locally and seeded using Japanese pinning techniques (where holes are drilled through the shell to secure the oyster to the growing rope), with dropper lengths of approximately 5–6 metres.

On mussel lines, spat obtained primarily from Te Hiku and hatchery sources will be deployed at sizes of approximately 300 microns–10 mm and on-grown, with dropper lengths typically 5–8 metres. If utilised, seaweed cultivation lines will be seeded with hatchery reared seedstock and on-grown for a period of 6–12 months, depending on the species and selected utilisation noting that seaweed production trials are already showing promising results at site 8406 in nearby Kawhia Bay. Harvest of Undaria, alongside cultivation of other algae species, is also proposed as a means of countering the emerging effects of ocean acidification, with all cultivated species contributing to carbon sequestration.

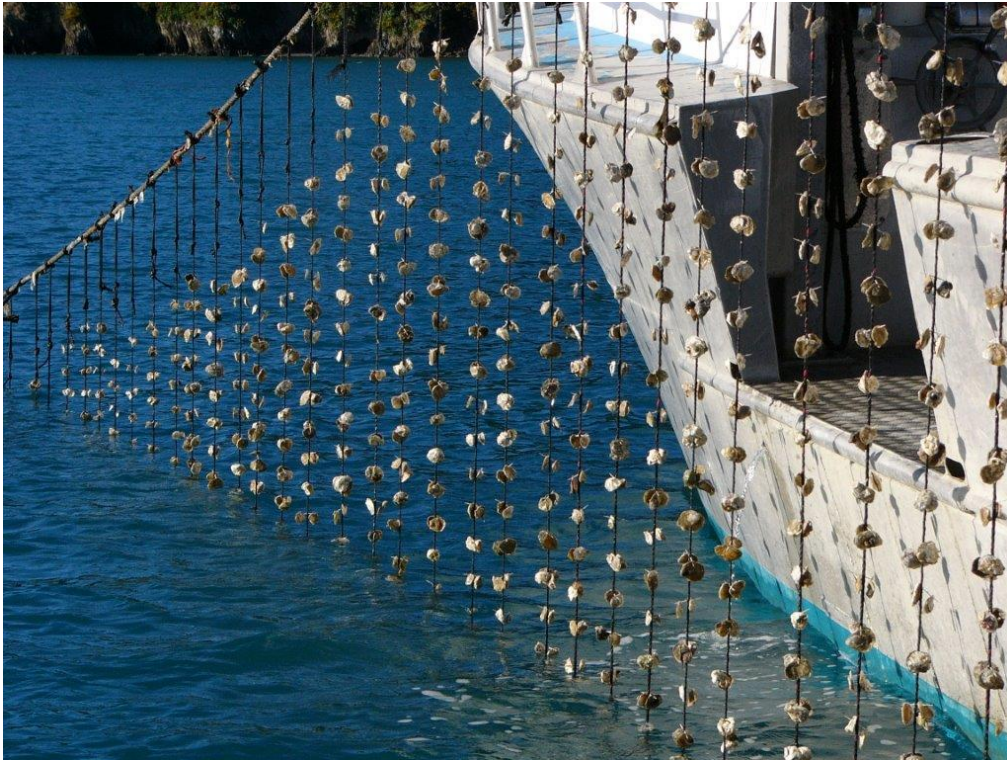


Figure 49 Pinned oysters

The middle site (Block B) will include a small growing structures exclusion area, as recommended by ecological experts Davidson Environmental, to protect an area of reef habitat.

Orange mussel floats will be placed at the ends of each line and at the centre of the outside lines, with additional Aids to Navigation (including special marks and radar reflectors) installed in accordance with directions from the Harbourmaster, to ensure navigation safety. As with other farms, the public will be able to fish, dive and tie up to the lines.

Flat oyster farming will be carried out in accordance with any Biosecurity Act permissions required, including operation in accordance with a Biosecurity Management Plan specifically designed to manage the unwanted organism *Bonamia* as set out in **Section 12.6** below.

The application is also seeking consent to harvest *Undaria* from farm structures. While *Undaria* is also an unwanted organism, many existing farms in the Marlborough Sounds have consent for 'harvest only' of *Undaria* in recognition that it is widely distributed throughout the Sounds.

The farm will be operated in accordance with industry best practice, including the MFA ECP and A+.

Conditions of consent will include beach cleaning requirements and operation in accordance with a Biosecurity Management Plan and a Marine Mammal Management Plan. Apex will dedicate at least 80 hours per year to wilding pine management at Katoa Point if the application is granted.

12.1.6 Project Delivery

Apex are committed to commencing development of the site within 1 month of obtaining consent and approval from Biosecurity New Zealand to recommence flat oyster production. Development of the site will occur in

stages, with full development occurring within 3 – 5 years. The NZIER economic assessment (**Schedule D22**) assumes that all lines will be producing oysters by Year 3.

12.2 Benefits

12.2.1 Production Supported, Indicative Export Value and Jobs Created

The Onapua Bay water space has the potential to enable Apex's return to flat oyster farming, support the diversification of New Zealand's aquaculture sector, and pave the way for other growers seeking to reestablish flat oyster cultivation, in particular for open ocean sites.

Apex considers the proposal has several areas of competitive advantage that are not shared by the rest of the world. These are:

- A unique species with a peculiar biology shared only with Chile.
- A unique method of cultivation recently developed based on that peculiar biology.
- By world standards an extra-ordinarily consistent and high meat/shell ratio.
- An especially fast-growing species given the appropriate water and space.
- A counter season opportunity with the populous Northern Hemisphere where in some countries, notably North America, they prefer a smaller oyster. There are also niche counter season opportunities in China.

At full development, this application has the potential to support the production of 287,000 dozen flat oysters per annum, based on a 28 month cycle time, 5m droppers, 0.25m dropper spacing, 0.1m oyster spacing, and full year class separation. Each metre of crop rope could deliver 1.1 dozen saleable oysters (after mortality and discards) with 50% of oysters achieving A grade and 50% B grade. Using conservative export values of \$34.55 per dozen for A grade and \$26.80 for B grade, the site could support export revenue of \$4.4 million, and the creation of 30 FTE roles spread across a range of on water, processing and business support positions.

If, for regulatory or operational reasons, Apex is unable to resume flat oyster farming, the water space will be utilised for Greenshell mussels.

Assuming half of the Onapua Bay water space is seeded with Te Hiku spat and the anticipated spat conversion ratio of 3:1 is achieved, the production supported equates to 1,259 GWT per annum, with an indicative export value of \$7.5m and 14 FTE roles created. Under a future scenario where 100% hatchery spat is used, production supported increases to 5,244 GWT per annum, with an indicative export value of \$31m (in 2026 dollars) and 59 FTE roles created.

If the remaining half is used for crop production and seeded with Te Hiku seed, production equates to 229 GWT per annum, with an indicative export value of \$1.3m and 3 FTE roles created. Under a future scenario where 100% hatchery spat is used, production increases to 597 GWT per annum, with an indicative export value of \$2.8m (in 2026 dollars) and 5 FTE roles created.

For the purposes of modelling this alternative use case, it was assumed that 80% of the total lines would be seeded with Te Hiku spat in Year 1, with this allocation reaching a steady state of 50% Te Hiku spat and 50% hatchery spat for both nursery and crop production by Year 5.

On this basis, the Year 5 nursery production supported equates to 3,251 GWT per annum, \$19m in export

revenue and the creation of 37 FTE roles. The Year 5 crop production equates to 354 GWT per annum, \$2.1m in export revenue and the creation of 4 FTE roles. Collectively, the site would support 3,605 GWT of annual production, generate indicative export value of \$21 million per annum, and support approximately 41 FTE roles.

Importantly, many of the FTE roles created will be generated in provincial centres such as Picton and Blenheim, where the aquaculture industry plays a critical role in sustaining economic prosperity. Apex provides the following benefits to their employees:

- Wages and salaries that are typically above average in Marlborough;
- Good job stability with year round employment and casual staff opportunities during busy seasons;
- Ongoing on-the-job training, particularly health and safety;
- Opportunities to upskill, including financing deckhands who show aptitude into completing skippers' qualifications.

Apex's existing mussel and oyster operations directly support a range of local supply chain businesses, including transport and courier services, marine and mechanical engineering, boatyards, vessel berthage and slipways, fuel supply, chandlery, rope and float manufacturing

For the purposes of the NZIER economic assessment (**Schedule D22**), the flat oyster production adopted was **115 GWT**.

12.2.2 Economic Impacts

NZIER finds that, based on an average expected production supported of 115 GWT the equivalent **production value will be \$1.2 million**, and the **annual potential export revenue will be \$4.4 million**.

12.2.3 Disease Resilience and Biosecurity

The presence of *B. ostreae* and the associated farming restrictions represent the principal constraint to the re-establishment of a flat oyster industry. However, the applicant considers that successful cultivation is achievable through appropriate farming practices, site management and biosecurity controls.

Having experienced the enforced prohibition on flat oyster farming and the mandatory destruction of all stock and equipment in 2017 following the emergence of *B. ostreae*, the applicant understands firsthand the critical importance of robust biosecurity practices. Site specific biosecurity considerations and proposed controls are set out in **Section 12.6**.

12.2.4 Climate Adaptation

Tory Channel is characterised by consistently cool water temperatures, strong current velocities and a direct hydrodynamic connection to Cook Strait. These conditions are expected to reduce thermal stress on flat oysters and support favourable physiological performance throughout the year. Strong currents also provide a reliable supply of phytoplankton and promote oxygen exchange, reducing environmental stressors that can affect oyster health, growth and survival.

From an aquaculture perspective, these attributes make Tory Channel one of the more climate resilient growing environments in Marlborough. It's cool, well mixed waters are expected to provide greater tolerance to a range of future climate conditions, including increasing average sea temperatures and more frequent marine heatwave

events. The minimal freshwater inflow and lower rainfall closures also add resilience.

While Onapua Bay does not experience the same degree of tidal exchange as the main channel, the applicant considers the proposed water space to be well suited to flat oyster cultivation. The applicant owns four nearby farms in Oyster Bay, totalling 11.9 hectares. Between 2006 and 2013, these farms produced the majority of the 21,400 dozen flat oysters marketed under the Tio Point brand. This history provides practical evidence that the wider Oyster Bay–Onapua Bay area can support commercial flat oyster production.

The applicant also considers species diversification to be an important climate adaptation strategy for the New Zealand aquaculture sector. The effects of *B. ostreae* on flat oysters demonstrate how a species specific disease can constrain an entire production sector. While Pacific oysters, Greenshell mussels and king salmon are not affected by *B. ostreae*, each remains vulnerable to its own disease, biosecurity and environmental risks, which may become more pronounced as marine conditions change.

Developing a flat oyster industry would therefore provide benefits beyond the production of an additional premium seafood product. It would contribute to a more diverse national aquaculture portfolio, reduce dependence on the small number of dominant species, and improve sector resilience should Pacific oysters, Greenshell mussels or king salmon be affected by production challenges.

12.2.5 Community and Environmental Contribution

Apex has pledged 80 person hours per annum to the eradication of wilding pine from the Katoa Point Scenic Reserve. The preferred approach is the herbicide injection technique, which involves drilling holes in the pine's trunk and injecting herbicide, ensuring the chemical remains contained within the target tree.

Without support from the applicant, it is unlikely that wilding pine control would occur in the reserve on such a regular basis. Furthermore, early intervention to control the spread is significantly more cost effective than attempting the removal of wilding pines once established.

Successful restoration of the reserve's natural character will benefit Onapua Bay residents, landowners, holidaymakers, and travellers passing through Tory Channel (i.e., ferry passengers). In addition, it will contribute to the rehabilitation of a part of Tory Channel that is comparatively unattractive.

12.2.6 Strategic Relevance

The Onapua Bay application demonstrates strong alignment with Pathway 4 of the ADP. Apex firmly believes that flat oyster production is immediately scalable and represents the best opportunity for diversifying New Zealand's shellfish production.

12.3 The Existing Environment

The Onapua Bay sites were selected following careful consideration of potential sites within Tory Channel that would be suitable as a 'sister site' to Oyster Bay while being appropriate in terms of coastal uses and values. Values that were considered were fishing, high residential areas, other residential areas, existing mussel and oyster farming, rocky bottoms, salmon farming anchoring and seasonal set netting.

The sites had to be sufficiently distance from Oyster Bay to enable single year class farming and have suitable currents.

Figure 50 (provided in **Schedule A**) shows the proposed sites in the context of the identified values.

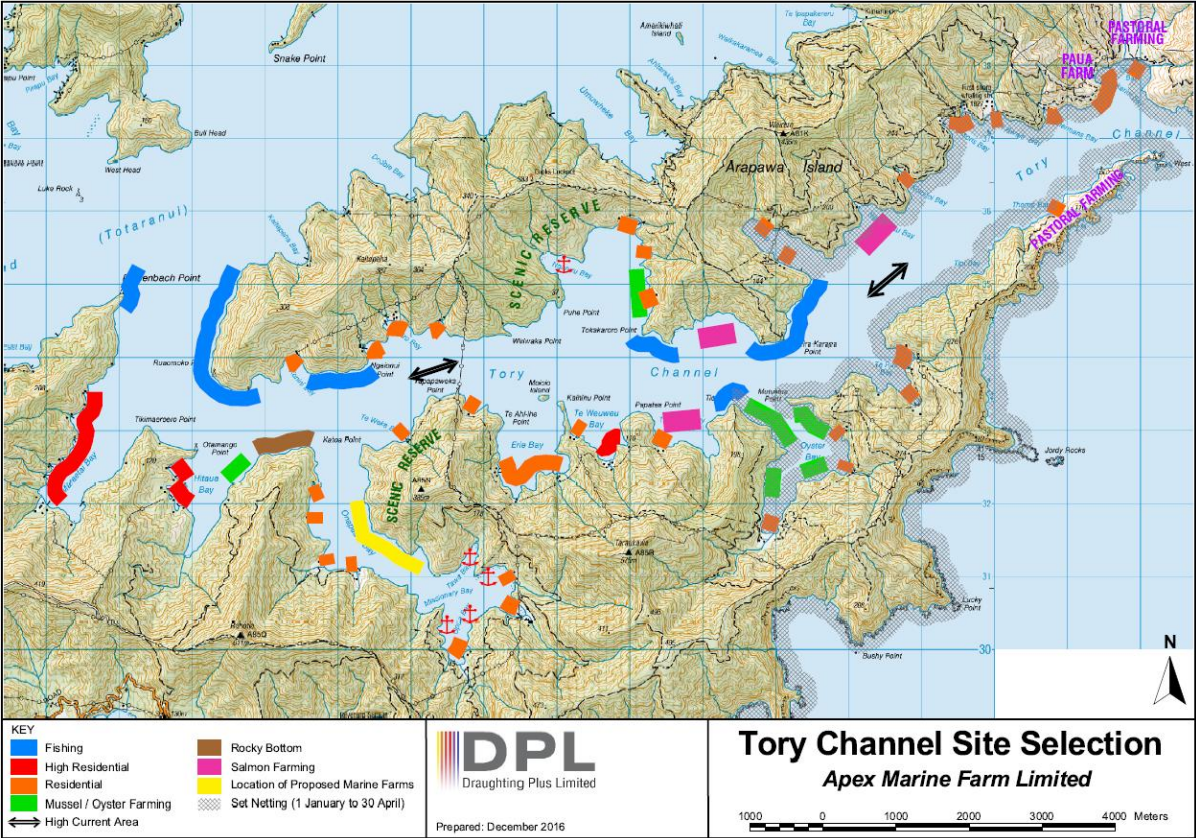


Figure 50 Onapua Bay site selection

The Onapua Bay application sites are set within the Marlborough Sounds High Amenity Landscape and predominantly within an area of High Coastal Natural Character. They are not within an area of Outstanding Natural Character or Outstanding Natural Landscape. The sites are located well away from any ESMS identified in the MEP, the nearest is Katoa Point which is at least 500 metres north of the northernmost sites. The sites sit within the Marlborough Sounds Important Bird Area but not within a Marine Mammal Distribution Area in the MEP.



Figure 51 Onapua Bay MEP Overlays

The proposal is for three new farms which are subject to an application for private plan change (to the MSRMP) and resource consent which was lodged in 2017 and was placed on hold awaiting outcomes of Variation 1 to the MEP. The resource consent application will be withdrawn prior to lodging a substantive Fast-track application and the plan change will be superseded when the MEP becomes operative.

The Onapua Bay landscape assessment²²⁸ provided in **Schedule D18** of this application describes the area:

- *'Onapua Bay is a semi-enclosed coastal embayment within Tory Channel, forming part of the wider Marlborough Sounds environment. The landscape is defined by steep, enclosing landforms, a simple and legible relationship between land and sea, and a broader pattern of productive land use, including forestry and marine based activities. Although the bay itself is currently free of aquaculture structures, it sits within a working coastal context rather than a pristine or unmodified environment'.*

The Onapua Bay terrestrial ecology report²²⁹ provided in **Schedule D16** of this application describes the ecological value of the Katoa Point Scenic Reserve, which is located at the head of the bay and adjacent to the proposed farms:

²²⁸ **Schedule D18.**

²²⁹ Wildlands., Ecological Assessment of Katoa Point Scenic Reserve and the Threat Posed by Wilding Conifers (2019). (**Schedule D16**).

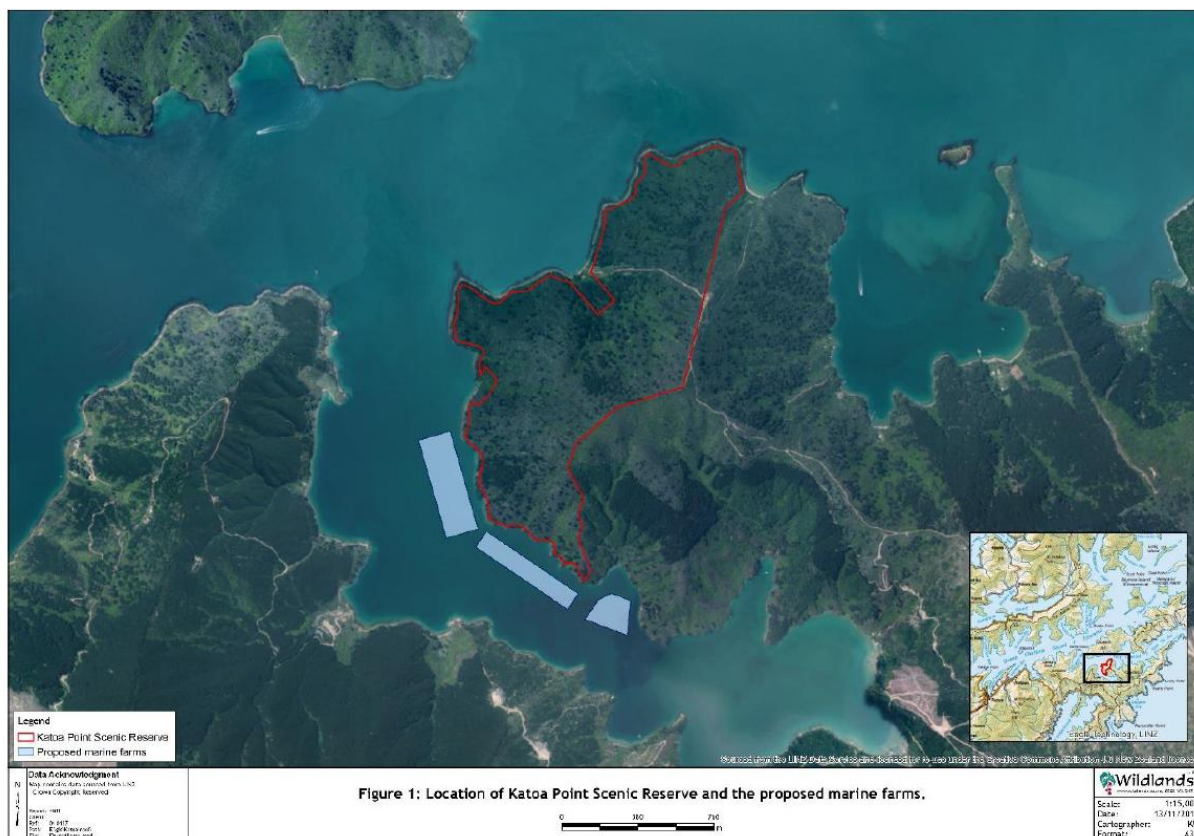


Figure 52 Katoa Point Reserve adjacent to the application sites

The assessment notes that while Katoa Point Scenic Reserve is infested with wilding pines it is still worth retaining as an area of indigenous biodiversity. It has moderately high vascular plant species richness, a reasonably diverse assemblage of indigenous forest birds, probable presence of Marlborough green gecko and raukawa gecko, nesting habitat for shags, and small wetlands that provide habitat for South Island fernbird. A key aspect to retaining its value is a programme to manage the wilding pines. In response to this, Apex have proposed to dedicate at least 80 hours per year to wilding pine control at Katoa Point if the application is granted.

The landscape assessment also details recreational activity. While Onapua Bay itself is relatively secluded it forms part of the broader area of the Marlborough Sounds which is widely valued for recreational boating, fishing and marine transport. As Onapua Bay is inaccessible by road, many of the dwellings have an associated jetty or boat ramp and there is a series of 10 moorings throughout the bay. There is also a log barge loading facility near the head of the bay to support the area's forestry activity. The homestead in the head of the bay is available for rent as a tourism operation. There are two holiday homes available for rent in the bay, both of which may have views of the farm.

The Tory Channel Current and Tide Model²³⁰ provides real time flow data demonstrates that Onapua Bay has a very different hydrological environment from Tory Channel with very low flows in the side bays compared to the channel itself.

²³⁰ Marlborough District Council, [Tory Channel Monitoring Dashboard](https://www.marlborough.govt.nz/environment/harbours/tory-channel-current-and-tide-model) (Oceanum, last accessed 16 July 2026); McComb, P., Johnson, D., Zyngfogel, R., Field, D. and Grogan, L., 2022. Real time prediction of tidal and non-tidal flows to improve the navigational safety at the entrance to the Tory Channel. In *Australasian Coasts & Ports 2021: Te Oranga Takutai, Adapt and Thrive* (pp. 660-666). Christchurch, NZ: New Zealand Coastal Society.
<https://www.marlborough.govt.nz/environment/harbours/tory-channel-current-and-tide-model>

The Robertson EclA in **Schedule D21** records the ecological value of the majority of the Site ZOI as low and characterised by low-complexity soft sediment typical of sheltered bay environments. A reef tip extends into the Site ZOI which has high value. The dense biogenic habitat associated with the rocky shore slopes within both the Site and Project ZOI has high value.

All other ecological values are similar to those at each of the sites, and summarised in **Section 12.4**

The Marlborough Sounds Cruising Guide notes Onapua Bay translates to 'stinking wind' and that the main part of the bay is significantly windy regardless of the wind direction. Overnight anchoring is not recommended in the area of the application however anchorages are available in the southern arm of the Bay (the large arm between Opua Bay and Missionary Bay) which offer the opportunity for shelter in all conditions. Note anchoring is also available in the unnamed bay inshore of Site C.

There are no MEP mapped heritage sites or heritage trees in vicinity of the site. There are numerous archaeological sites identified on ArchSite in the broader area. Of those in the closest vicinity, Q27/239 inshore of the proposed farm is a midden. Across the bay, P27/336 is a stone working area, and P27/337 is a possible pa with a pit. Across the bay and further towards its head Q27/177 is a terrace with fragments of a 'peculiar tubular iron 'roller' and Q27/250 is a findspot for artefacts including adzes a chisel and a clear pounamu object. The applicants do not consider the proposal will affect these sites.

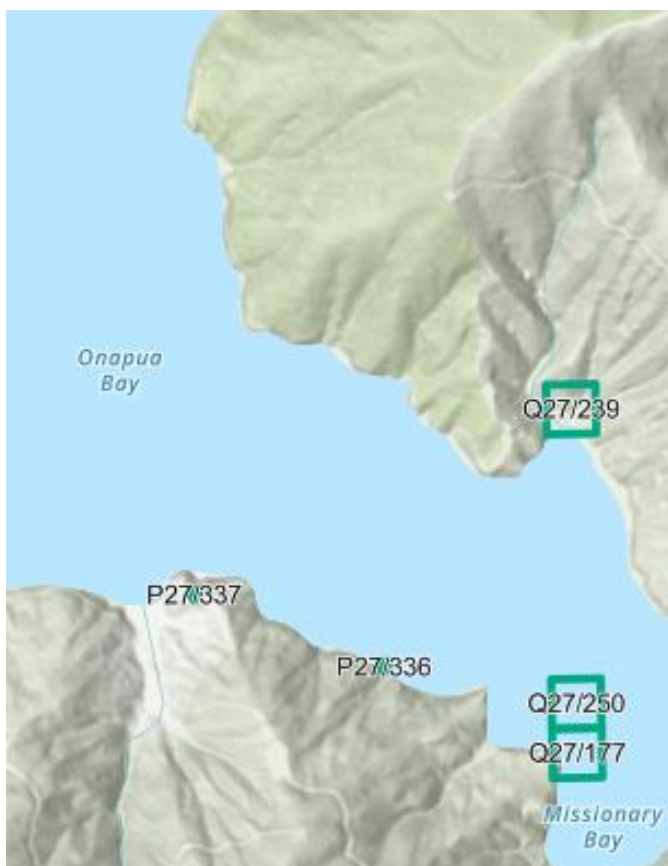


Figure 53 Archaeological sites in the vicinity

12.4 Site Specific Effects Summary

An overview of effects with applicable references is provided in Table 43 below. Site specific effects that warrant further detail are set out in the following subsections.

Effect	Assessment	References
Positive effects	The proposal will create a range of economic, social, cultural and ecosystem benefits.	Part 5 Project Benefits
		NZIER Economic Assessment (Schedule D22)
		Project Coastal Ecological Assessment 2026 (Schedule D21)
Seabed	- Site specific seabed effects are set out in detail in Section 12.5 below. - In summary, as the proposed site layout avoids the small area of reef, the seabed is appropriate for mussel farming, and the seabed effects are considered to be no more than minor.	Section 12.5 Seabed Effects
		Onapua Bay Ecological Package 2021 (Schedule D14)
		Project Coastal Ecological Assessment 2026 (Schedule D22)
Water column	- There will be negligible water column effects. Typically, little if any effects are detectable beyond the boundaries of the farm and the proposed site is in a well flushed environment. - The effects of mussel farms are relatively insignificant compared to other terrestrial and regional oceanographic drivers. - It is not anticipated that there would be any adverse cumulative water column effects from the project.	Section 6.6 Water Column Effects
		Cawthron Mussel Farm Plankton Report 2020 (Schedule I3)
		Onapua Bay Ecological Package 2021 (Schedule D14)
		Project Coastal Ecological Assessment 2026 (Schedule D22)
Marine mammals	- Effects on marine mammals are expected to be no more than minor. - Mussel farms have been coexisting with marine mammals since the inception of the industry. - The site will be operated in accordance with the A+ Sustainable Management Framework and the MFA ECP thereby ensuring that all best practices are followed to minimise the chance of marine mammal interactions. - The site will be operated in accordance with an MMMP as set out in the proposed consent conditions.	Section 6.7 Marine Mammal Effects
		Marine Mammals Letter 2026 (Schedule D20)
		Onapua Bay Ecological Package 2021 (Schedule D14)
		Project Coastal Ecological Assessment 2026 (Schedule D22)
		Marine Mammal Management Plan (Schedule E1) and Proposed Conditions (Schedule F)
Seabirds	- Effects on the endangered king shag are not anticipated. - Recent studies show that king shag have individual foraging preferences. Some prefer to forage in marine farms, and the birds frequently use marine farms as roosting sites for rest or to digest their food. - No adverse effects on other seabirds are anticipated.	Section 6.8 Seabird Effects
		Seabirds Letter 2026 (Schedule D19)
		Onapua Bay Ecological Package 2021 (Schedule D14)
		Project Coastal Ecological Assessment 2026 (Schedule D22)
Biosecurity	- Site specific biosecurity effects are set out in detail in Section 12.6 below. - In summary Apex considers that with the proposed biosecurity controls in place, including operation in accordance with the BMP, flat oyster farming can be reestablished at Onapua Bay in a manner consistent with international best practice for managing Bonamia. Whether the site is used for flat oysters	Section 12.6 Biosecurity Effects
		Onapua Bay Bonamia TAG Report 2019 (Schedule D15)
		Project Coastal Ecological Assessment 2026 (Schedule D22)
		Biosecurity Management Plan (Schedule E2) and Proposed

Effect	Assessment	References
	or, in the interim, as a Greenshell mussel nursery pending resolution of the CAN, the application supports Apex's wider strategy of trialling single year class farming across its Oyster Bay and Onapua Bay holdings. The site will be operated in accordance with a site specific BMP as set out in the proposed consent conditions.	Conditions (Schedule F)
Fisheries resources	- The farms are sited over soft sediment which does not comprise important habitat for fish. - Mussel farming can provide benefits for pelagic and benthic species of both conservation and commercial importance.	Section 6.10 Fisheries Resources Effects
		Project Coastal Ecological Assessment 2026 (Schedule D22)
Landscape, and natural character	- Onapua Bay specific landscape and natural character effects are set out in detail in Section 12.7 below. - In summary the landscape and natural character effects are considered to range between low and moderate depending on the coastal user but appropriate in the context of the Onapua Bay setting.	Section 12.7 Landscape and Natural Character Effects
		Onapua Bay Terrestrial Ecology Report 2019 (Schedule D16)
		Onapua Bay Landscape and Natural Character Assessment 2026 (Schedule D18)
Amenity	- Onapua Bay specific visual amenity effects are set out in detail in Section 11.6 below. - In summary, visual effects will be up to moderate (depending on the viewer), reducing to low–moderate should the refinement to Block A be adopted. - The main noise generated is during harvest, which occurs infrequently and over relatively short periods. There are limited numbers of dwellings in the vicinity, and noise will be within the limits set out in the MEP. - Industry best management practices will be followed to minimise amenity effects.	Section 6.12 Amenity Effects
		Onapua Bay Landscape and Natural Character Assessment 2026 (Schedule D18)
Security of Structures and Debris	- A condition requiring cleaning of beach debris is also proposed. - Taken overall, with the best management practices in place, the farm will be operated with structural integrity, and effects from debris will be no more than minor.	Section 6.13 Security of Structures and Debris
Navigation, Public Access and Recreation	- Site specific navigation, public access and recreation effects are set out in detail in Section 12.8 below. - The farm will be installed and marked in a manner that enables safe navigation through and around the farm. - The farm blocks are sited in a manner that allows for navigation to and along the shore. Public access to the sites will still be enabled. - Effects on fishing are not anticipated but will be appropriately assessed by MPI. Navigation through and around the farm for fishing vessels will be enabled. Effects on fisheries resources will be no more than minor and, in some respects, positive.	Section 12.8 Navigation and Public Access Effects
		Onapua Bay Navigation Assessment 2016 (Schedule D17)
		Section 6.15 Recreation and Tourism (including Fishing) Effects

Effect	Assessment	References
	- Effects will be mitigated to the extent practical by the applicant operating industry best practices. - Mussel farms are known to have positive effects for recreational fishing. - Overall, there will be no more than minor effects on navigation safety and up to moderate effects on navigational experience and recreational amenity in the vicinity of the sites. A safe navigation corridor will be maintained.	
Cultural Effects	- It is for iwi to determine cultural effects. - The site is not within a formal mātaihai, taiāpure or rāhui area. It is subject to applications under MACAA. - During engagement with pou taiao cumulative ecological and cultural effects were raised as the key concern noting that cultural values are intrinsically linked to ecological health. - The applicant anticipates ongoing engagement with iwi on this application and the resulting activity.	Section 6.16 Cultural Effects
Customary Fishing Effects	It is for iwi to determine effects on customary fishing however the EclA supports the applicants' initial assessment (set out in Section 12.9) that effects on customary fishing will be no more than minor.	Section 12.9 Customary Fishing Effects
Historic heritage	The historic heritage effects are considered no more than minor.	Section 6.18 Historic Heritage Effects
Cumulative	- The cumulative ecological effects will be negligible in magnitude and very low overall. - The cumulative landscape, visual and natural character effects are assessed as low at the local Onapua Bay scale and very Low at the wider Tory Channel scale. - The application generally aligns with the policies that guide the identification of new space (AMAs) in the MEP.	Section 6.19 Cumulative Effects Project Coastal Ecological Assessment 2026 (Schedule D22) Onapua Bay Landscape and Natural Character Assessment 2026 (Schedule D18)

Table 43 Onapua Bay effects summary

12.5 Seabed Effects

Assessments of the seabed were carried out by Davidson Environmental in 2016²³¹, 2019²³² and 2021^{233,234} to inform the applicant's application for private plan change and concurrent resource consent and their submissions to Variation 1 to the MEP to provide three AMAs at the application site. The findings of the surveys were summarised in evidence that Rob Davidson gave to the MEP hearings panel. All four of these documents are provided in **Schedule D14**.

²³¹ Davidson, R.J.; Forrest, R.; Richards, L.; Asher, R.; Edwards, R. *Biological report for a marine farm application located in Onapua Bay, Tory Channel*. (Davidson Environmental 2016). (included in **Schedule D14**).

²³² Davidson R.J. *Additional data on a reef associated with an application for a new marine farm located in Onapua Bay, Tory Channel*. (Davidson Environmental 2019). (included in **Schedule D14**).

²³³ Davidson, R.J.; Rayes, C.; Scott Simmonds, T. *Diver sampled transects and high definition video collected from a proposed new marine farm in Onapua Bay, Tory Channel*. (Davidson Environmental 2021). (included in **Schedule D14**).

²³⁴ Davidson, R.J.; Richards, L.A.; Scott-Simmonds, T. 2021. *Ecological report for two proposed marine farm sites located near Hāpuku Rock, Admiralty Bay, Marlborough Sounds*. (Davidson Environmental Ltd 2021) (included in **Schedule D14**).

Of note, the original Davidson survey found that the seabed beneath the application sites is predominately soft sediment but there is one area of reef habitat beneath the middle block. Davidson has recommended a growing structures exclusion area for that block.



Figure 54 Growing structures exclusion area recommended by Davidson

MDC commissioned a set of peer reviews of the Davidson surveys which prompted the final survey in 2021. Despite this Davidson's overarching findings remained unchanged.

The 2016 Davidson assessment comprised a seabed characterisation component involving sonar imaging, drop camera images, benthic grab samples, data processing and interpretation. The 2019 survey was informed by a multibeam survey carried out by NIWA which indicated the presence of a reef extending towards the middle block.



Figure 55 Area of potential rock outcrop identified by NIWA in their multibeam survey

The 2019 survey comprised additional sonar and drop camera investigation of the suspected reef. The 2021 survey responded to some *'information gaps'* and *'areas of uncertainty concerning biological information provided by the applicant and submitters'*. It comprised diver sampled transects, hand held and remote high definition video and sonar sample shore profiles which informed a comprehensive description of habitats and communities present at the reef, along the shoreline and within the application blocks.

Davidson's summarised the findings in his 2021 evidence:

- Notwithstanding the small area of reef, the proposed consent is located predominantly over offshore low gradient benthos which supported a range of species typical of mud bottoms in Marlborough. All species were in low abundance or were sparse or rare or in patches (e.g. non-calcareous tubeworms).
- Species included horse mussels, scallops, hermit crabs, cushions seastars, heart urchin, solitary ascidian, camouflage crab, colonial ascidian, whelks branching red algae and occasional clumps of non-calcareous worms, not at an abundance that would be considered a bed.
- The shore slope habitat inshore of the proposed consents supports a more diverse range of habitats and associated communities compared to offshore areas. Chaetopterus was sufficiently abundant in places on the mid to lower shore slope to constitute biogenic habitat however these are outside the zone of farm impact.
- The presence, location, extent and biotic attributes of the reef located adjacent to the middle application block was confirmed and the proposed growing structures exclusion area includes a buffer around the reef and the rock substrata. The warp and anchor zone also acts as a buffer.
- Based on the existing knowledge around the detectable impact of marine farming impacts on the reef would be unlikely due to the physical separation between production droppers and the reef.
- *'The 2021 study confirmed no further change to the exclusion area were required to ensure the reef would remain free of farm related impacts'*.

Davidson showed the reef area and proposed growing structures exclusion area in detail in the 2021 assessment.

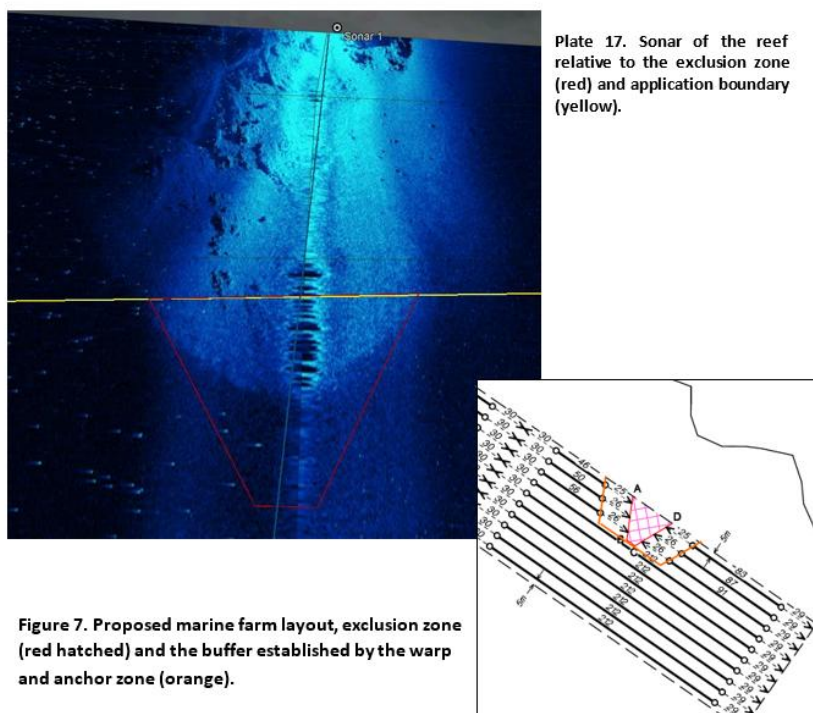


Figure 56 Detail of reef area in middle block and proposed growing structures exclusion area

The site and layout plans for this application include the recommended growing structures exclusion area in the middle block and are provided in **Schedule A**.

Davidson's evidence concluded that:

- *'Apart from the tip of a reef that penetrates the middle AMA, all proposed farm blocks are located over a low gradient, mud dominated benthos.*
- *The reef located adjacent to and partly within the middle block has been surveyed three times. Its location and biotic and abiotic attributes have been well described. A farm structure exclusion area aimed to ensure the reef is not adversely impacted has been carefully placed over and around the reef and adjacent coarse sediments.*

Like many parts of the Sounds Onapua Bay has a population of *Chaetopterus chaetopterus*. The parchment tube worms are spreading rapidly within Tōtaranui / Queen Charlotte Sound and are the cause of biodiversity loss.²³⁵ *Chaetopterus* is behaving like an invasive species.²³⁶ However, it is not known whether the species is native but has changed its behaviour as a result of factors such as climate change or is in fact an invasive species.²³⁷

Seabed effects are expected to reverse in 5 to 11 years after the farm is removed.

In summary, as the proposed site layout includes the recommended growing structures exclusion area, the seabed is appropriate for mussel farming, and the seabed effects are considered to be **no more than minor**.

12.6 Biosecurity Effects

12.6.1 Introduction

As set out in **Section 4B.1.2** this application seeks to establish Onapua Bay as a 'sister site' to Apex's existing Oyster Bay farms, providing the additional water space needed to apply international best practice biosecurity management to flat oyster farming.

Specifically, the application seeks to:

- Create sufficient farming space to enable year class separation, addressing the primary transmission pathway for *Bonamia*;
- Enable lower stocking densities while flat oyster stocks rebuild natural resistance to *Bonamia*;
- Support the broader re-establishment and enhancement of flat oyster farming in the Marlborough Sounds; and
- Make use of a site whose location and characteristics are well suited to flat oyster cultivation.

Having experienced the enforced prohibition on flat oyster farming and the mandatory destruction of stock and equipment in 2017 following the emergence of *Bonamia*, Apex understands firsthand the importance of robust biosecurity practice.

The following sections set out the Biosecurity Act context, the consenting context and the biosecurity controls

²³⁵ RNZ News Article: [Action on Marlborough Sounds parchment worm 'in the too-hard basket'](#) (5 January 2026).

²³⁶ Davidson, R.J.; Richards, L. A; Wade, O.; Merrick, M. 2025. State of the environment monitoring of selected ecologically significant marine sites (ESMS) in the Tōtaranui (Queen Charlotte Sound) area, Marlborough. Research, survey and monitoring report number 1255 [id:2w6fod7yl1cxbyd9yome](#)

²³⁷ Scott-Simmonds, T. (2024). [Background information on the parchment worm *Chaetopterus* sp.](#) Report prepared for Marlborough District Council, July 2024. The University of Waikato. 52 p.

proposed by Apex to establish a high value, productive and biosecure flat oyster operation.

12.6.2 Consenting Context

Ostrea chilensis are a species indigenous to New Zealand and have been farmed in the Marlborough Sounds since 1985.

A significant proportion of the approximately 580 marine farms in Marlborough have consent to farm flat oysters. For example, every farm except the salmon farms in Kura Te Au / Tory Channel has consent to farm flat oysters. That includes the farms in Hītaua Bay, Kāwhia Bay, Clay Point and Oyster Bay.

This is broadly consistent with other bays. For example, in Te Whanganui / Port Underwood approximately 70% of the farms have consent for *Ostrea chilensis*. The same is true for East Bay and other parts of the Sounds.

For those farms that do not have a current consent to farm *Ostrea chilensis* is a species listed in Appendix 11. It is consequently a controlled activity for an application to add *Ostrea chilensis* to a farm. Such an application must be granted subject to conditions.²³⁸ Accordingly, there are no resource management restrictions on the farming of *Ostrea chilensis* in Marlborough.

12.6.3 Biosecurity Act Context

The 30 October 2023 version of the Bonamia CAN controls the movement of shellfish in the Upper South Contained Zone²³⁹ (the Zone) as follows:

- Flat oysters, Pacific oysters, Green-lipped Mussels and Geoducks must not be moved out of the Zone for the purposes of commercial processing without a permit issued under the Biosecurity Act
- Shellfish (including waste) collected in the Zone must not be returned to the marine environment outside the Zone.
- Equipment must not be moved out of the Zone unless it is visibly free of fouling.

There is nothing in the CAN that control the farming of those species within the Zone.

Notwithstanding that, matters of relevance for Biosecurity Act permission are as follows:

- Prior to the notice of direction Oyster Bay has previously been classified as an epidemiological unit, and the most recent surveillance (Autumn 2023) returned a negative result for Bonamia in that bay.
- Apex previously held a Biosecurity Act permission for Oyster Bay prior to the detection of Bonamia in Big Glory Bay and is seeking a renewed permission covering both Oyster Bay and Onapua Bay, given that Onapua Bay would come into use as the Year 2 site if this application is successful.
- Farming oysters in separate year classes is good biosecurity practice, as is using farms with verifiable low flows in an area of low, scattered populations of oysters on the benthos. This application will enable such farming in Tory Channel.
- The 2019 Bonamia TAG (**Schedule D15**) recommended a small-scale (one or two farms only), structured and supported return to flat oyster farming in the Marlborough Sounds, so farming systems can be developed and evaluated, and the risk of Bonamia ostreae to the wider environment properly assessed. A subsequent meeting with BNZ officials²⁴⁰ resulted in an oral agreement that a trial of 250,000 oysters

²³⁸ Rule 16.4.8

²³⁹ Effectively the territorial sea of Marlborough, Nelson and Tasman up to Separation Point.

²⁴⁰ John Walsh, Sophia White and Jamie McKenzie

in line with the TAG recommendations could be commenced, subject to an approved Biosecurity Management Plan, iwi approval and agreements on testing. These conditions have been met.

- *Bonamia ostrea* has been detected in Paterson Inlet²⁴¹ and is now consequently likely to spread into Foveaux Strait over the coming years²⁴². It now seems that containment of *Bonamia ostreae* on the New Zealand mainland is impossible. The justification for continued containment measures outside the Chatham Islands appears to be waning;
- The Hon Shane Jones, as Minister of Oceans and Fisheries, has challenged the industry to make better use of consented space, and meet the aspirational target of \$3 billion in annual revenue by 2035. Farming methods developed by Apex have been modelled on open ocean farming of scallops in Japan. The potential for those techniques to be adopted in the open ocean in New Zealand is very large and would meet the Minister's challenge; and
- BNZ has advised that the CAN currently covering the Marlborough Sounds is under review, with a decision expected in approximately November 2026. Apex considers this review will take into consideration the likely spread of *Bonamia* to the wild Foveaux Strait fishery, reinforcing the need to progress farmed alternatives.

This application enables the consideration of whether Onapua Bay is a suitable location for the farming of *Ostrea chilensis*. However, the regulatory framework for farming *Ostrea chilensis* throughout the Marlborough Sounds is well established. BNZ has signalled that it is commencing a process to review the current state of the regulation. Apex has signalled that it wishes to be part of such a process.

12.6.4 Proposed Biosecurity Controls

Apex has developed protocols to ensure biosecure farming of flat oysters over many years as set out in **Section 4B.1.2** and in the Onapua Bay Operations Report in **Schedule 15**. For the purposes of this application Apex proposes to operate in accordance with the following controls:

Control	Detail
Suspended culture	Research has confirmed that the <i>Bonamia</i> parasite is negatively buoyant. Through the use of suspended culture and only extending droppers to 5m below the surface, the risk of the transmission of <i>Bonamia</i> from wild oysters living on the seafloor to the farmed stock is greatly reduced ²⁴³ .
Year class separation	By maintaining distinct age group separation, the transmission of <i>Bonamia</i> can be reduced significantly. Peer reviewed studies demonstrate that older oysters are more susceptible to <i>Bonamia</i> and act as reservoirs for the parasite, shedding infectious spores into the water. By separating year classes, young oysters are less exposed to infectious particles, reducing overall infection pressure throughout the farmed population ²⁴⁴ . Apex sites in nearby Oyster Bay will be utilised every second year to provide this separation.
Low stocking densities	Lowering stocking densities reduces the risk of <i>Bonamia</i> transmission and intensity. Studies demonstrate that decreased oyster density reduces the number of infectious particles shed and

²⁴¹ Biosecurity New Zealand Report on *Bonamia Ostreae* Autumn 2026 Surveillance Survey 27 (Autumn 2026) Biosecurity New Zealand Technical Paper 2026/03, September 2026.

²⁴² Santoro, D. The likelihood, speed and impact of *Bonamia Ostreae* spread from Big Glory Bay to Foveaux Strait, Biosecurity New Zealand Technical Paper No.2024/05, December 2024.

²⁴³ Mialhe, E. (1988). Isolation and purification of the protozoan *Bonamia ostreae* (Pichot et al., 1980), a parasite affecting the flat oyster *Ostrea edulis* L. *Aquaculture*, 71(4), 293–299. [https://doi.org/10.1016/0044-8486\(88\)90198-6](https://doi.org/10.1016/0044-8486(88)90198-6)

²⁴⁴ Hine, P., (1996). The ecology of *Bonamia* and decline of bivalve molluscs. *New Zealand Journal of Ecology*, 20(1), 109–116. [The ecology of Bonamia and decline of bivalve molluscs | NZES](#)

	received, diminishing cross infection pressures. Farms with lower densities report reduced Bonamia related mortalities and improved overall stock health ²⁴⁵ .
Fast cycle times	The proposed growing methodology will see flat oysters being harvested after a maximum cycle time of 28 months. Research confirms that susceptibility and mortality from Bonamia are greater in individuals older than 24 months ²⁴⁶ , and recent farming experience supports a 28 month total cycle. This rapid turnover prevents accumulation of heavily infected carriers and interrupts the parasite's lifecycle on farms.
Wild sourced spat	Field and laboratory research suggests that flat oysters from areas with a history of Bonamia exposure, or survivors from wild stocks, have developed better disease resistance than naïve or even some hatchery produced stock ^{247,248} . Apex proposes to catch flat oyster spat in Tory Channel and Port Underwood, areas where Bonamia has previously been detected ²⁴⁹ .
Reduced handling stress	Minimising handling, transfer, and other disturbances can lower susceptibility to Bonamia. Peer reviewed studies confirm that stress from mechanical disturbance (e.g. transport and frequent manipulation) can increase oyster vulnerability and mortality by compromising immune defences ²⁵⁰ . The proposed farming methodology requires minimal handling and transport.
Fouling management	At the completion of every 28 month cycle, the applicant proposes to thoroughly clean all warps, backbones and bridles, and rotate floats to allow desiccation of any fouling and wild oysters present. This process will eliminate the risks associated with the presence of wild oysters of unknown year classes.
Area based management	Area based management approaches such as spatial separation of sites, limiting stock movements and implementing routine surveillance can reduce the impact of Bonamia ²⁵¹ . Apex supports the use of area based management approaches and has proactively entered into an area based agreement with another entity who has expressed interest in farming flat oysters in Tory Channel.
Co-culture with other bivalves	Research has identified that growing flat oysters with Pacific oysters can reduce the prevalence of Bonamia mortalities ²⁵² . Apex believes that the co-culture of Greenshell mussels with flat oysters would provide the same benefits, whereby the Bonamia resistant mussels filter out potentially infectious material from the water column.

Table 44 Proposed biosecurity controls for flat oyster farming

²⁴⁵ Hilton, Z., Vignier, A., Muznebin, F., & Webb, S. (2025). [Reduced farming density of New Zealand flat oyster *Ostrea chilensis* lowers *Bonamia ostreae* prevalence and severity](#). *Aquaculture*, 607, 42683.

²⁴⁶ World Organisation for Animal Health (WOAH). (2023). [Surveillance for Infection with *Bonamia ostreae*](#). In *WOAH Aquatic Manual* (Chap. 2.4.3).

²⁴⁷ Sas, H., Deden, B., Kamermans, P., zu Ermgassen, P., Pogoda, B., Preston, J., Helmer, L., Holbrook, Z., Arzul, I., van der Have, T., Villalba, A., Colsohl, B., Lown, A., Merk, V., Zwerschke, N., & Reuchlin, E. (2020). Bonamia infection in native oysters (*Ostrea edulis*) in relation to European restoration projects. *Aquatic conservation: marine and freshwater ecosystems*, 30(11), 2150 – 2162. HALId: hal-04202659 <https://hal.science/hal-04202659v1>

²⁴⁸ Culloty, S., & Mulcahy, M. (2007). *Bonamia ostreae* in the native oyster *Ostrea edulis*: a review. Marine and Environment Health Series. Department of Zoology, Ecology & Plant Science, University College Cork. Marine Environment and Health Series, 29, 11–29. ISSN NO:1649-0053

²⁴⁹ Biosecurity New Zealand. (2023). [Report on the *Bonamia ostreae* Autumn 2023 Surveillance. Survey 21](#) Biosecurity New Zealand Technical Paper No: 2023/04. Ministry for Primary Industries. ISBN No: 978-1-991120-13-7

²⁵⁰ Lacoste, A., Malham, K., Gélébart, F., Cuff, A., & Poulet, S. (2002). Stress-induced immune changes in the oyster *Crassostrea gigas*. *Developmental and comparative immunology*, 26(1), 1–9. <https://doi.org/10.1016/S0145-305X%2801%2900067-2>

²⁵¹ World Organisation for Animal Health (WOAH). (2023). Surveillance for infection with *Bonamia ostreae*. In [WOAH Aquatic Animal Health Code](#) (Chap. 2.4.9).

²⁵² ibid (Chap. 2.4.3).

Apex has developed an operation specific BMP which limits oyster cultivation to Oyster Bay and Onapua Bay in Tory Channel (**Schedule E2**).

12.6.5 Undaria

Undaria pinnatifida is an unwanted organism under the Biosecurity Act but is well established and stable in Tory Channel, where subtidal monitoring since 2000 shows it growing year round to depths of 6–8 metres without displacing native species²⁵³. On this basis, and consistent with other existing farms in the Sounds, Apex is seeking consent to harvest (not cultivate) *Undaria* from farm structures.

12.6.6 Conclusion

Apex considers that with the proposed biosecurity controls in place, including operation in accordance with the BMP, flat oyster farming can be reestablished at Onapua Bay in a manner consistent with international best practice for managing *Bonamia*. Whether the site is used for flat oysters or, in the interim, as a Greenshell mussel nursery pending resolution of the CAN, the application supports Apex's wider strategy of trialling single year class farming across its Oyster Bay and Onapua Bay holdings.

12.7 Landscape and Natural Character Effects

12.7.1 Introduction

A landscape, visual and natural character assessment of Onapua Bay was carried out by Josh Hunt in 2026 (**Schedule D18**). Brad Coombs of Isthmus has peer reviewed the assessment provided as **Schedule D29**. The assessment was prepared on behalf of Apex Marine Farm Limited as part of the broader Fast-track approvals process for new aquaculture activities within the Marlborough Sounds. The landscape assessment followed the NZILA guidelines considering physical, associative and perceptual attributes. The natural character assessment followed the framework applied in the Marlborough Coastal Study and associated natural character mapping in the MEP, evaluating natural character in terms of abiotic, biotic and experiential factors.

The assessment was informed by a site visit undertaken in December 2025.



Figure 57 Approaching the site from Viewpoint 2

²⁵³ Davidson, R.J.; Richards, L.A.; Rayes, C; Abel, W. 2017. Biological monitoring of the ferry route in Tory Channel and Queen Charlotte Sound: 1995-2017. Prepared by Davidson Environmental Ltd. for Marlborough District Council and Department of Conservation. Survey and monitoring report no. 854

12.7.2 Existing Landscape and Natural Character

Hunt describes Onapua Bay as a semi enclosed coastal embayment on the southern side of Tory Channel, within the wider Marlborough Sounds environment. The bay is visually contained by surrounding headlands and steep coastal slopes, with the surrounding hill country dominated by commercial forestry, areas of regenerating indigenous vegetation (including Katoa Point Scenic Reserve) and pastoral land use. The bay lies within an area mapped as High Natural Character (HNC) in the MEP.

The assessment notes that, while the bay itself is currently free of aquaculture structures and retains the distinctive drowned valley landforms and relatively simple benthic habitats typical of sheltered Marlborough Sounds embayments, it is not a pristine or unmodified environment. The surrounding terrestrial environment has been substantially modified through historical land clearance and plantation forestry, and the wider Tory Channel setting includes marine transport activity and aquaculture structures within neighbouring bays. Hunt concludes that Onapua Bay is best understood as a semi enclosed side bay within a broader working coastal landscape, with a natural character sensitivity assessed as moderate, reflecting identifiable natural coastal characteristics alongside the influence of existing modification within the surrounding landscape.

12.7.3 Landscape Effects

The assessment finds that the proposal would introduce marine farming structures (three blocks of longlines) into the currently simple marine environment of Onapua Bay, altering the visual composition of the bay. However, it would not alter the underlying landform framework, the enclosing coastal slopes and headlands, the surrounding vegetation patterns or the broader Tory Channel and Marlborough Sounds landscape context.

At the wider landscape scale (Marlborough Sounds and Tory Channel), landscape effects are assessed as very low, reflecting the limited extent of change within the much larger coastal landscape system. At the local bay scale, effects are assessed as low to low–moderate, with physical effects low to low–moderate, perceptual effects low–moderate, and associative effects low (the activity aligning with the established working coastal landscape character of the area at that scale).

12.7.4 Visual Amenity Effects

The proposal would introduce new visible elements onto the water surface of Onapua Bay, but effects would remain localised to the bay and would vary depending on viewer location, elevation, orientation and degree of enclosure.

For people travelling through Tory Channel, views toward the bay are typically oblique, distant and transient, with the enclosing headlands limiting visibility into the interior. Where structures are visible, they would appear as small scale, low profile elements within a much larger coastal setting. Effects for this audience are assessed as low to very low.

For the small number of residential dwellings along the western shoreline, visual effects vary between individual properties, ranging from low–moderate (Dwellings 1 and 3) to moderate (Dwellings 2, 4 and 5). Across these properties, structures would be visible within mid distance views, but the surrounding coastal landforms, plantation forestry backdrop and broader spatial framework of the bay would remain the prominent visual features, with the structures subordinate to the dominant landforms.

The highest visual effects would occur for marine users within Onapua Bay, who would experience the structures

more directly within the coastal marine area. Taking into account the scale of the receiving environment, the low profile nature of the structures and the enclosing landforms, these effects are assessed as moderate (reducing to low–moderate should the proposed refinement to Block A be adopted). Visual effects associated with navigational lighting at night are assessed as very low.

Overall, while marine farming activity would be visible to a limited number of viewers, the effects would remain localised and generally moderate or less, and would not result in a fundamental change to the visual character of the bay or the wider Tory Channel landscape.

12.7.5 Natural Character Effects

Hunt assessed natural character effects in relation to abiotic, biotic and experiential attributes:

- Abiotic effects are assessed as very low, as the proposal would not alter the underlying drowned valley landforms, coastal slopes, seabed morphology or marine processes (tidal movement, wave action or sediment transport) that define the bay; the structures represent a surface level modification only.
- Biotic effects are assessed as low, with any ecological effects localised within the immediate footprint of the activity and no removal of indigenous vegetation, clearance of coastal habitats or fragmentation of terrestrial ecological patterns.
- Experiential effects are the principal natural character effects, arising from the introduction of visible human activity within the currently simple and relatively unoccupied marine environment. These are assessed as low–moderate, reflecting a localised reduction in perceived naturalness within a recognised working coastal environment where the structures would remain subordinate to the dominant enclosing landforms.

Although the proposal is located within a mapped HNC area, Hunt considers the effects to be primarily localised and experiential. The proposal would not alter the abiotic framework of the bay, would not materially affect biotic attributes, and would not compromise the values and characteristics that underpin the mapped HNC area. Overall natural character effects are assessed as low to low–moderate.

12.7.6 Mitigation and Potential Refinement

The assessment identifies the most sensitive receivers of change as the limited number of residential dwellings along the western shoreline and marine users within the bay. Hunt considers that Block A, located in the northern portion of the bay with setback distances exceeding 500 metres from the nearest dwellings and partial screening from intervening landforms, is appropriate as currently configured and does not result in unacceptable visual effects.

However, Hunt has considered a targeted refinement, comprising the removal of a total of 10 longlines (approximately 1,630 metres of backbone from the offshore area of Block A as shown in Figure 58 below.



Figure 58 Possible targeted landscape refinement

The primary effect of this refinement would be to reduce the lateral spread of structures toward the centre of the bay, increase separation from the dwellings and *'create a more contained and visually coherent outer edge to the marine farming area'*. The refinement would not reduce the degree of visual effect for the dwellings (moderate) but would reduce the effect (to low-moderate) for marine users within Onapua Bay.

The assessment concludes that:

- *'While the refinement reduces the visual extent of structures, it does not change the fundamental finding that marine farming activity within Onapua Bay would remain subordinate to the dominant coastal landforms and enclosing spatial structure of the bay. It would however specifically result in a reduced level of adverse effect on the experiential component of visual effects for marine users traversing the Onapua Bay waters.'*

That proposed refinement will be for the Panel's consideration in the context of the statutory test.

12.7.7 Cumulative Effects

The assessment considered cumulative effects at the local Onapua Bay scale and the wider Tory Channel scale. While the three blocks and associated navigational lighting will be visible together from some locations and would collectively introduce a new working marine component to Onapua Bay waters, the blocks are separated, low profile and contained within a bay where the enclosing landforms, complex shoreline and broader water surface would remain dominant.

At the wider Tory Channel scale, views into Onapua Bay are limited, oblique and transient and existing aquaculture is generally contained in separate bays and separated by headlands. Although marine users may experience these sequentially the Onapua Bay proposal would not increase the perception of an extensive aquaculture landscape along the channel.

Overall, cumulative landscape, visual and natural character effects are assessed as low at the local Onapua Bay scale and very low at the wider Tory Channel scale and *'in my opinion, these cumulative effects would not amount to significant adverse effects on the values and characteristics of the mapped High Natural Character area'*.

12.7.8 Conclusion

Overall, the assessment concludes that the proposed Onapua Bay marine farm would result in localised landscape, visual and natural character change within the bay, but would not materially compromise the key landscape characteristics of the bay, the visual amenity of the wider receiving environment, or the broader values that underpin the HNC overlay.

While some change would occur within the immediate bay environment, this change would be consistent with the established character of the Marlborough Sounds as a working coastal landscape. Hunt considers that the proposed marine farm can be accommodated within Onapua Bay without materially compromising the identified landscape and natural character values of the receiving environment, including the values associated with the mapped High Natural Character areas.

Natural character effects will be no more than minor. Visual effects will be generally no more than minor but more than minor for a small number of residential dwellings along the western shoreline and marine users in the bay. Landscape effects at the scale of Onapua Bay will in some respects be more than minor but will not comprise the key characteristics or values of the landscape.

12.8 Navigation, Public Access, Recreation and Tourism Effects

Navigation, public access, recreation and tourism were matters canvassed for Onapua Bay during the MEP hearings on that proposal. This section draws on the subsequent Panel decision.

Onapua Bay is within a popular and accessible recreation setting in Tory Channel, easily reachable from Queen Charlotte Sound which is part of a nationally significant marine recreation setting although Onapua Bay itself is only regionally significant in isolation. No important fishing or commercial tourism values were identified and as noted above the name Onapua Bay translates as 'stinking wind' so it often has unpleasant boating conditions.

Nevertheless, the bay does contain a number of private residences. While the bay does have road access, that access is via private forestry to which the public may not have access. Access to any of the properties by boat will require travel in the vicinity of farms. In addition, three sets of structures for which building consent has been issued provide residential immunity to their occupiers. Two of those properties are rented for others to enjoy. While the proposed marine farms will have no direct effect on any land-based structure, those people enjoying the amenity of those buildings would, in the presence of the proposed farms, would do so in the context of a farm approximately 500m away. Those persons who see aquaculture as adverse will suffer a loss of amenity as a result. However, given the distance between the farm and the residential activity and the lack of effects on the land itself, the overall level of effect is assessed to be minor.

While the farm sites themselves are not recreation locations in their own right, they do sit within the area that vessels use to navigate to the head of the bay. During the MEP hearings a distinction was drawn between whether navigation is physically safe and the broader experience of navigation. The latter includes recreational boating, efficiency of water transport, and the amenity of the boating environment.

The following is a summary of recreational considerations.

Recreational Considerations	Applicant Response
Block C sits within an 'unnamed bay' which serves as an anchorage	- The proposal will not prevent anchoring in the unnamed bay but will affect the experience of navigation in this location. - However, there may also be benefits for anchoring as the farm will provide shelter from the 'stinking wind'.
The presence of the sites will reduce amenity values for anchorage users	- While this remains the case, Apex considers vessel activity within the bay to be low, and there will be no adverse effect on safe anchoring, mooring or access. The bay's value as an anchorage is limited and is concentrated in locations the proposal does not occupy, except for Site C which has been shifted seaward to accommodate anchorage. - For vessels transiting the bay the effects will be transitory, and Apex has proposed to undertake 80 hours per year of wilding pine control at Katoa Point which will increase visual amenity values.
There is a reduced opportunity for a wilderness experience in Tory Channel	While this remains the case, Apex has proposed to undertake 80 hours per year of wilding pine control at Katoa Point which will increase visual amenity values.
There will be less pleasant and more difficult experiences of navigation during prevailing wind conditions as vessels would need to use the eastern side of the bay in those conditions	- The Hearn's have considerable experience navigating the broader area of Tory Channel and have made the following observations: - The north westerly wind in Onapua Bay tends to maintain its strength as it travels around the point of Site A, rather than reducing materially within the bay. - If vessels are seeking shelter by transiting around the north eastern side of the bay that will encounter substantially more energetic and potentially dangerous conditions once they round Dieffenbach Point toward Queen Charlotte Sound - Marine farm structures can provide local wave attenuation and a lee side sheltering effect. - Appropriately lit marine farm structures can increase navigation safety and amenity at night
There will be less efficiency in water transportation due to reduced travel speeds of 5 knots within the bay	While the proposal will result in reduced transit speeds there will be no adverse effect on safe anchoring, mooring or access.
There will be less opportunity to undertake recreational activities at speeds of more than 5 knots such as water skiing	

Table 45 Onapua Bay recreational considerations

Furthermore, a local family made the following observations in their submission supporting Apex's application to consent their farm site in nearby Ngāruru Bay:

- *'This marine farm is located directly in front of our small bay and provides a form of protection for us and our children when we are kayaking or swimming etc in our bay.'*
- *'If the wind was to change on our kids kayaking or paddle boarding and blow them away from the beach then the farm will stop them from getting way out into the open water of the bay and provide us with enough time to go and get them.'*
- *'The marine farm also provides shelter and can greatly reduce the amount of choppy sea entering our bay.'*

With respect to navigation safety, on the advice of the Harbourmaster, the Onapua TAG found that:

- *'Overall, Mr Grogan considers that the proposal is unlikely to affect navigation within the Tory Channel, but the presence of the farm structures will increase the complexity of navigating within Onapua Bay. Mr Grogan also considers that while marine farming within Onapua Bay would create additional complexity for vessels navigating in Onapua Bay, it is unlikely to create navigation safety concerns that are more than minor'*

The Environment Court has recently adjudicated on a case in Clova Bay.²⁵⁴ Clova Bay is a long relatively narrow bay with marine farms on both sides. At present there is a 515 metre long central portion of the bay where the gap between opposite marine farms is less than 400 metres. The consequence of this is that a compliant skipper would need to reduce their speed to 5 knots to comply with the Maritime Rules²⁵⁵ and similar bylaw.²⁵⁶ This is described in the case as a 'pinch-point' towards the head of the Bay.

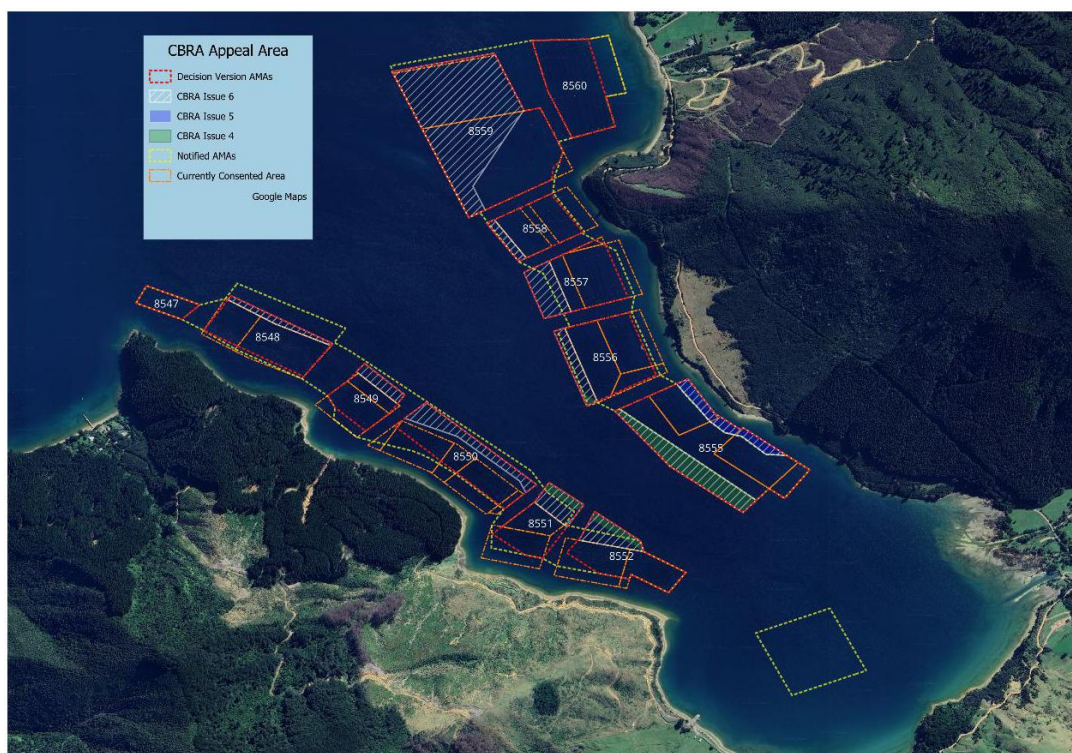


Figure 59 Clova Bay as shown in Figure 1 of the Court's decision

²⁵⁴ *Clova Bay Residents Association Incorporated v Marlborough District Council* [2026] NZEnvC 217 (2 September 2026).

²⁵⁵ Maritime New Zealand Maritime Rules Part 91: Navigation Safety Rules Part 91.6.

²⁵⁶ Marlborough District Council Navigation Safety Bylaw 2025, bylaw 3.3(1)(b). A marine farm is a structure.

The outcome in the decisions version of the proposed plan was that marine farms would be further moved towards the centre of the bay so that the pinch point would extend 1,040 metres.²⁵⁷ A compliant skipper would need to travel at low speed for an additional three minutes to navigate through the pinch point.

This outcome was appealed by the Clova Bay Residents Association (CBRA). The proximity of marine farms around the navigational corridor was said to give rise to navigation safety and efficiency concerns.

Captain Smith gave evidence for CBRA. He suggested that were a vessel traveling at 27 knots, it would take in the order of 11 seconds of distraction to give rise to a collision with a marine farm.²⁵⁸ The Court's findings were as follows:

- On matters of navigational safety, the Court preferred the evidence of the current Harbourmaster, Jake Oliver and the former Harbourmaster Luke Grogan.²⁵⁹
- *'We acknowledge that there is at least the potential for an inexperienced, distracted, skipper to err so as to collide with a marine farm at speed that could lead to injury. However, we accept Mr Grogan's explanation of why such a potential consequence is most unlikely. We accept Harbourmaster Oliver's evidence that there is no record of prior such accidents causing injury or harm.'*
- The Maritime Transport Act 1994 provides a means of regulating navigational safety outside the resource management process.²⁶⁰
- *'There is no navigational safety case for any change to any of the AMA boundaries that are mentioned.'*²⁶¹
- *'As for navigational efficiency, we bear in mind that there must be an inevitable give and take in regard to the shared use of public waters.'*²⁶²
- *'As for the pinch point in the central navigation corridor of Clova Bay, we accept that a three or so minute of extension of journey time for a compliant skipper may be a cause of minor frustration or inconvenience. Perhaps more precisely, it would be felt as increasing what is already somewhat inconvenient in terms of the established pinch point in the area.'*²⁶³
- *'...If marine farmers choose to reposition their farms into the AMAs from their present more shoreward positions, that would enhance the efficiency of navigation in those [shoreward] localities. In particular, there would be an enhancement of the ability to swim or safely navigate in kayaks and other small craft closer to the foreshore.'*²⁶⁴ The new marine farm would provide shelter inshore of the farm for small craft as described by the Court.

Like Clova Bay, the placement of farms in Onapua Bay will cause inconvenience. However, in terms of navigational safety the presence of the farm will introduce navigational lighting where none exists at present. The Sounds has many navigation corridors of less than 400m.²⁶⁵

The proposal is generally consistent with Policy 14.21.5(g) of the MEP in that a safe navigation corridor will be

²⁵⁷ At [81].

²⁵⁸ At [86].

²⁵⁹ At [93].

²⁶⁰ At [94].

²⁶¹ At [95].

²⁶² At [96].

²⁶³ At [98].

²⁶⁴ At [100].

²⁶⁵ Motungarara / Mabel Island to Picton Harbour foreshore c 360m; Ōruawairua / Blumine Island to Arapaoa Island, c 350m; Matapara / Pickersgill Island to Arapaoa Island c 210m, Havelock Channel less than 50m at its narrowest points.

maintained.

In summary there will be **no more than minor** effects on navigation safety and up to moderate effects on navigational experience and recreational amenity in the vicinity of the sites.

12.9 Customary Fishing Effects

As set out in **Section 6.17** the applicant has undertaken an initial assessment of effects on customary fishing using the best available information as follows:

Existing customary use and values	Onapua Bay is a bay in Kura Te Au / Tory Channel and sits within the customary food gathering area/rohe moana of Te Taihu iwi.
	The bay and the wider Kura Te Au supports customary gathering of finfish and kaimoana, but there are no mapped mātaītai, taiāpure or rāhui in the immediate footprint of the proposed farm.
	In the Statements of Association Te Ātiawa describe Kura Te Au / Tory Channel as a foundation settlement and enduring cultural heartland, central to navigation, tauranga waka, mahinga kai and whaling activities, with bays and inlets forming a closely connected cultural landscape.
	In the Te Ātiawa Iwi Management Plan (2014) ²⁶⁶ it states: <i>Objective 4 Te Ātiawa Iwi will be able to freely participate in both traditional and contemporary cultural practices, in engaging the fresh water resources of the rohe.</i> <i>Policy 5 Avoid further losses and constraints, imposed through historic management practices, on access to customary fishing resources and the cultural practices that those resources sustain.</i>
	In the Statements of Association Rangitāne portray Kura Te Au as part of a wider Kurahaupō fishery and communication corridor across the Marlborough Sounds.
	In the Statements of Association Ngāti Toa identify Kura Te Au and Arapaoa as core to their nineteenth-century expansion, seafaring and resource use.
Nature of effects	The EclA finds that the farm structures may have positive benefits for fish, there are no TAR species present and the overall effect will be negligible to low.
	The farm structures would exclude customary fishing from the seabed, but customary fishing can continue in the water column between and around lines using small vessels, as occurs at existing mussel farms elsewhere in the Sounds.
	A recent MPI assessment for Ngaruru Bay in Kura Te Au ²⁶⁷ farms indicated that the absence of hard substrates beneath the proposed sites makes it unlikely blue cod, kina, pāua, rock lobster or mussel would be caught there and that stationary rod/line and mobile rod/line methods may still be used.
	The proposed 15.73 hectare farm footprint is small relative to the available customary fishing grounds in Te Hoiere and adjacent coastal waters.
	There are numerous archaeological sites in the general vicinity with a midden located inshore of the proposed farm.
	Shellfish farming does not deplete target customary species, and recent science and MPI decisions recognise that mussel farms may enhance habitat and local fish abundance, which can in turn support customary harvest at farm margins.
	The introduction of the ability to undertake single year class farming in Kura Te Au means that Te

²⁶⁶ [Te Ātiawa o Te Waka-a-Māui Iwi Environmental Management Plan August 2014](#).

²⁶⁷ Fisheries New Zealand., [Aquaculture Decision on four coastal permits in Ngaruru Bay and Pelorus Sound](#) (10 May 2023).

	Ātiawa could also develop a flat oyster operation in the area.
Proposed management response	The proposed conditions can ensure that customary fishers can safely navigate through or alongside blocks and continue to access customary species in the area. The applicant has offered data and farm access (where biosecurity allows) to support iwi-led monitoring of flat oyster populations and mahinga kai health in Onapua Bay and adjacent waters.

Table 46 Onapua Bay customary fishing assessment

12.10 Proposed Conditions

Proposed consent conditions are set out in **Schedule F**. For Onapua Bay they require a structures exclusion area over the small area of reef at the inshore edge of Site B. They also require management of debris including participation in the MFA beach cleaning programme. Vessels must not transit within 200 metres of any king shag colony. The site must be operated in accordance with an MMMP and a BMP both of which are provided in **Schedule E**.

12.11 Conclusion

The Onapua Bay application will provide 15.73 hectares at three sites in Tory Channel/Kura Te Au to develop the high value flat oyster aquaculture industry. The sites have been carefully selected as a 'sister site' to Apex's Oyster Bay farms, providing for year class separation to ensure best practice biosecurity in response to Bonamia. Flat oysters are the most high value and market ready opportunity for a new species and the application could pave the way for further production at open ocean sites.

NZIER finds an equivalent production value of \$1.2 million and annual potential export revenue of \$4.4 million. Apex has also pledged 80 person hours per annum to wilding pine control at Katoa Point Scenic Reserve.

The potential environmental effects have been comprehensively assessed and for the most part are considered to be no more than minor. There will be effects on the experience of navigation within Onapua Bay, and therefore recreation, but safe navigation corridors will be maintained and the farms will provide shelter from rough conditions inshore. While flat oysters are consented at more than 200 farms in the Marlborough Sounds flat oyster farming has been paused because of the Bonamia CAN which is currently under review. Apex has developed comprehensive biosecurity protocols as set out in the BMP. The EcIA finds that cumulatively, other ecological effects will be negligible in magnitude and very low overall. The landscape assessment proposes a targeted refinement but finds that this would not change the overall finding that the effects will be localised and acceptable and would not compromise the key landscape or natural character values of Onapua Bay

The site will be operated in accordance with industry best practice, and the proposed conditions provide appropriate mitigations including operation in accordance with the MMMP and the BMP. The proposed conditions also provide a placeholder for ongoing iwi engagement on effects on cultural values including mauri.

The Onapua Bay application enables the only feasible opportunity to develop a new nationally significant high value flat oyster farming operation and is consistent with the purpose of the FTAA.

Part 13 Project Conclusion

This is a joint application for six separate aquaculture consents, each designed to enhance sector resilience, productivity, and diversity both regionally and nationally, while delivering a broad range of economic, social, cultural, and environmental benefits.

As a package, the applications respond to challenges faced by the industry in complementary ways. Each application builds on current knowledge to collectively address the needs of the industry. Each of the sites is in a location known for successful farming characteristics. Collectively the application provides a comprehensive response to climate change and the need for resilience.

The individual applications will contribute to transformation of the Marlborough industry as follows:

Application Type	Applications	Purpose
New mussel nursery space	Papatua, Guards Bay and Hāpuku Rock	The nursery applications are a direct response to the industry's primary production bottleneck, a reliable supply of resilient seed. These applications are in premium Outer Sounds locations and are expected to drive a significant productivity uplift across existing farms in the Marlborough Sounds.
New mussel (and other species) production space	Okuri Bay and Richmond Bay	The production sites add geographic diversity and reduce vulnerability to climate driven rainfall closures contributing to smoother production cycles and year-round employment.
New species opportunity	Onapua Bay	The Onapua sites will enable single year class flat oyster farming enabling diversification into a commercially proven high value species.
Iwi aquaculture	Richmond Bay and Papatua	The Richmond Bay sites are gifted to Te Tauihu iwi through Maara Moana, with 17.7% of Papatua nursery lines set aside for iwi to stock the space. Combined these support iwi aquaculture aspirations in the region.

Table 47 The application package

Combined, their benefits are greater than the sum of their parts. The nursery sites enable greater productivity from the industry's existing assets, on land and at sea, while the production sites and Onapua Bay add the geographic and species diversity needed to adapt to a changing climate.

In addition to addressing a critical production bottleneck and supporting climate adaptation, collectively these projects will generate \$275 million in indicative export revenue, create 222 full time equivalent jobs and increase national GDP by \$1,283 million over 30 years. Over a 30 year assessment period, the present value of the increase in Marlborough GDP and household spending is estimated at \$865 million and \$409 million respectively.

The project meets the purpose of the FTAA. It is consistent with Pathways 1, 3 and 4 of the Government's Aquaculture Development Plan and the Securing Spat Supply Work Plan and enhances the productive use of existing regional infrastructure including wharves and factories. The economic benefits are regionally significant. The project supports aquaculture by increasing productivity, diversity and resilience and is a direct response to well recognised climate change challenges.

The potential environmental effects have been comprehensively assessed and determined to be generally no more than minor. There will be some localised effects that are more than minor; site specific landscape and natural character effects at Papatua; close range visual and amenity effects at Richmond Bay; and effects on visual amenity, the navigation experience and recreation at Onapua Bay; but those effects are considered appropriate in their location. Behavioural effects on dusky dolphin at Hāpuku Rock may be up to moderate, reflecting uncertainty in the existing knowledge rather than an identified effect mechanism, and will be addressed through Clearwater's research contribution. Cultural effects are for iwi to determine.

Aquaculture is well recognised for providing a range of social benefits to the mostly regional communities it operates in. Aquaculture jobs are wide and varied and provide many opportunities for career development both at sea and on land and the industry contributes significantly to community initiatives in Marlborough. The activities will provide positive ecosystem services such as habitat creation and enhancement of recreational fishing. Furthermore, farmed shellfish are a sustainable, nutritious and low carbon protein food.

The sites will be operated in accordance with industry best practice, and the proposed conditions provide appropriate mitigations including operation in accordance with the MMMPs and BMPs. Together applicants will contribute a combined annual amount of \$40,000 to environmental and community projects and 80 hours to removing wilding pines.

Each application is a prohibited activity under rule 16.7.9 of the MEP. However, this application provides a suite of evidence that the marine environment has the capacity to absorb aquaculture at the sites and at the scale proposed. Taken overall, the proposal is broadly consistent with the NZCPS, including Policy 8, and the MEP, and constitutes sustainable management of the coastal marine area.

The applicants have engaged comprehensively with Te Taihū iwi and anticipate ongoing engagement through the application process and through the life of the consents. Placeholder consent conditions are included to address any remaining concerns regarding site specific effects on cultural values including mauri.

Maara Moana has written to confirm a mandate from Te Taihū iwi to secure the Richmond Bay sites and acknowledged the opportunity this presents for iwi aspirations in the region. NZIER finds that, based on an average expected production supported of 1,095 GWT the equivalent production value for Richmond Bay will be \$1.8 million, and the annual potential export revenue will be \$6.5 million. This sits outside any Crown obligations created by the application as a whole.

Each of the applications is regionally significant in its own right and meets the purpose of the FTAA. However, their true strength is that as a package they comprise a transformative opportunity to adapt the Marlborough industry to be fit for a changing world, with increased supply chain resilience, diversity and productivity, and to strengthen the export value and sustainability of New Zealand's marine farming future.

There are no identified reasons to decline the application. The applicants therefore request that the Panel grant the six coastal permits subject to the proposed conditions in Schedule F and make the corresponding aquaculture decisions under clause 20 of Schedule 5.

Schedule A

Maps and Plans

The following maps and plans are uploaded with the application as Schedule A.

Application	Map/Plan	
All Sites	A1	Project Locations and Benefits
Papatua	A2	Locality Map
		MEP Coastal Natural Character, Landscape and ESMS Overlay
		Site Plan
		Structure Layout
Guards Bay	A3	Locality Map
		MEP Coastal Natural Character, Landscape and ESMS Overlay
		Site Plan
		Structure Layout
Okuri Bay	A4	Locality Map
		MEP Coastal Natural Character, Landscape and ESMS Overlay
		West Block Site Plan
		West Block Structure Layout
		South Block Site Plan
		South Block Structure Layout
Hāpuku Rock	A5	Locality Map
		MEP Coastal Natural Character, Landscape and ESMS Overlay
		North Block Site Plan
		North Block Structure Layout
		South Block Site Plan
		South Block Structure Layout
Richmond Bay	A6	Locality Map
		MEP Coastal Natural Character, Landscape and ESMS Overlay
		West Block Site Plan
		West Block Structure Layout
		South Block Site Plan
		South Block Structure Layout
		East Block Site Plan
		East Block Structure Layout
Onapua Bay	A7	Locality Map
		MEP Coastal Natural Character, Landscape and ESMS Overlay
		Site Plan
		Block A Structure Layout
		Block B Structure Layout
		Block C Structure Layout
		Onapua Bay Site Selection Map

Schedule B

Cultural Engagement

The following cultural engagement documents are uploaded with the application.

Document	Date	Schedule
Phase 1 Iwi Engagement Outcomes Report	11/25	B1
Phase 2 Record of Engagement and Summary of Matters Raised Through Te Tauihu Pou Taiao Forums	08/26	B2
Maara Moana Letter	09/26	B3

Schedule C

Consultation Record

The consultation record is uploaded with the application as Schedule C.

Schedule D

Technical Assessments

The following technical assessments are uploaded with the application.

Application	Topic	File Name	Author	Ref
Papatua	Seabed Effects	Papatua Benthic Report 2026	Robertson	D1
	Landscape and Natural Character Effects	Papatua Landscape and Natural Character Assessment 2026	Isthmus	D2
Guards Bay	Seabed, Water Column, Fisheries Resources, Marine Mammal, Seabird and Biosecurity Effects	Guards Bay Ecological Assessment 2021	Davidson	D3
		Guards Bay Ecological Assessment 2024	Robertson	D4
	Landscape and Natural Character Effects	Guards Bay Landscape and Natural Character Assessment 2026	Isthmus	D5
Okuri Bay	Seabed, Water Column, Fisheries Resources, Marine Mammal, Seabird, Biosecurity and Cumulative Effects	Okuri Bay Ecological Assessment 2022	Robertson	D6
	Seabird Effects	Okuri Bay King Shag Assessment 2022	McClellan	D7
	Landscape and Natural Character Effects	Okuri Bay Landscape and Natural Character Assessment 2026	Narrative Landscape	D8
Hāpuku Rock	Seabed, Water Column, Fisheries Resources, Marine Mammal, Seabird, and Biosecurity Effects	Hāpuku Rock Ecological Evidence and Assessment 2021	Davidson	D9
	Landscape and Natural Character Effects	Hāpuku Rock Landscape and Natural Character Assessment 2026	Narrative Landscape	D10
	Marine Mammal Effects	Hāpuku Rock Marine Mammals Assessment 2026	SLR	D11
Richmond Bay	Seabed, Water Column, Fisheries Resources, Marine Mammal, Seabird, Biosecurity and Cumulative Effects	Richmond Bay Ecological Assessment 2025	Robertson	D12
Onapua Bay	Seabed, Water Column, Fisheries Resources, and Biosecurity Effects	Onapua Bay Ecological Package 2021	Davidson	D14
		Onapua Bay Bonamia TAG Report 2019	MPI	D15
	Terrestrial Ecology	Onapua Bay Terrestrial Ecology Report 2019	Wildlands	D16
	Navigation	Onapua Bay Navigation Assessment 2016	Walker	D17

	Landscape and Natural Character Effects	Onapua Bay Landscape and Natural Character Assessment 2026	Narrative Landscape	D18
All Sites	Seabird Effects	All Sites Seabirds Letter 2026	McClellan	D19
	Marine Mammal Effects	All Sites Marine Mammal Advice Letter 2026	SLR	D20
		Response Letter to Consultation on MMMP 2026	SLR	D13
	Seabed, Water Column, Fisheries Resources, Marine Mammal, Biosecurity and Cumulative Effects	All Sites Ecological Impact Assessment 2026	Robertson	D21
	Economic Effects	Economic Assessment 2026	NZIER	D22
Code of Conduct Statements ²⁶⁸	Marine Mammals	Code of Conduct Statement – Helen McConnell	SLR	D23
	Seabed, Water Column, Fisheries Resources, Marine Mammal, Seabird, and Biosecurity Effects	Code of Conduct Statement – Ben Robertson	Robertson	D24
Landscape and Natural Character Joint Memorandum			Narrative Landscape and Isthmus	D25

²⁶⁸ Code of conduct statements for McClellan, Narrative Landscape, Isthmus and NZIER are contained within the respective reports

Schedule E

Management Plans

The following management plans are uploaded with the application

Management Plan	Reference
All Sites Marine Mammal Management Plan	E1
Apex Biosecurity Management Plan	E2
All Other Sites Biosecurity Management Plan	E3
Papatua Site Management Plan	E4

Schedule F

Proposed Conditions

The proposed conditions of consent are uploaded with the application.

Schedule G

Planning Assessment

1.0 Fast-track Approvals Act Requirements

The project is for a resource consent that would otherwise be a prohibited activity under the Resource Management Act (RMA) pursuant to rule 16.7.9 of the Marlborough Environment Plan (Operative in Part) (MEP).

Section 42(5) of Fast-track Approvals Act (FTAA) allows a substantive application to seek resource consent for a prohibited activity under the RMA.

Schedule 5 of the FTAA requires a consent application to include an assessment against Sections 5, 6 and 7 of the RMA, this is provided in Section 3.0 below. Schedule 5 also requires assessment against relevant provisions of planning instruments including national environmental standards, national policy statements, the New Zealand Coastal Policy Statement (NZCPS), regional policy statements, plans, and planning documents recognised by iwi authorities and lodged with local authorities. An assessment against the NZCPS is provided in Section 4.0, assessment against the MEP is set out in Section 5.0 and assessments against relevant iwi management plans are set out in Section 6.0.

Taken overall, while the proposal constitutes a prohibited activity under the Marlborough Environment Plan other than in respect of landscape and natural character, it is broadly consistent with its policies and the NZCPS. Specifically, the proposal is not inconsistent with the directive policies of the NZCPS in that there are no adverse effects on significant indigenous biological diversity (11(a)) and no significant adverse effects on indigenous biological diversity (11(b)). The proposal is consistent with policy 8 aquaculture.

More importantly, the proposal is consistent with the purpose of the FTAA in that any adverse impacts can be appropriately managed through project design, avoidance measures, mitigation, monitoring and proposed conditions and are not out of proportion to the project's significant regional and national benefits.

2.0 Planning Context

New Zealand's planning system is hierarchical. At the top of the hierarchy is the RMA and various national instruments such as the NZCPS. At the bottom are regional and district plans. Regional policy statements fit in the middle. The theory is that issues will be resolved by reference to the higher order documents. Outcomes derived from that will be justified due to the fidelity with higher order instruments.

In practice, a number of difficulties arise:

- Plans are typically not up to date. The process for drafting the MEP started in approximately 2007 and in 2026 appeals on submissions lodged in 2016 are still on foot. Plans typically respond to the circumstances as we understood them 10 years ago.
- Abstract expression in higher order instruments leads to challenges in low order instruments. For example, it is not immediately apparent why reversible changes to landscape should be given the same, and potentially greater importance, than irreversible changes to indigenous biodiversity. There are parts of the Sounds where landscape protection applies to highly modified environments, the protection of which becomes a matter of national importance.

- Scientific knowledge changes, communities of interest change, values change, language changes, priorities change, and the climate is changing. As a consequence, in a hierarchy core model the only way to effect change is to reform the RMA and higher order instruments and then wait for the consequences of that change to trickle down.

The FTAA process is particularly relevant to the current proposal, where there is an urgent need for new water space to support climate adaptation. The understanding that has led to the identification of this need was not available when submissions were lodged on the proposed Marlborough Environment Plan in 2016 and the aquaculture Variation 1 in 2020.

3.0 Resource Management Act

3.1 Section 104

Section 104 of the RMA lists the matters that a consent authority must, subject to Part 2, have regard to when considering an application for a resource consent. It states:

- ‘(1) When considering an application for a resource consent and any submissions received, the consent authority must, subject to Part 2 and section 77M, have regard to—*
- (a) any actual and potential effects on the environment of allowing the activity; and*
 - (ab) any measure proposed or agreed to by the applicant for the purpose of ensuring positive effects on the environment to offset or compensate for any adverse effects on the environment that will or may result from allowing the activity; and*
 - (b) any relevant provisions of—*
 - (i) a national environmental standard:*
 - (ia) a wastewater environmental performance standard:*
 - (ib) a stormwater environmental performance standard:*
 - (ic) an infrastructure design solution:*
 - (ii) other regulations:*
 - (iii) a national policy statement:*
 - (iv) a New Zealand coastal policy statement:*
 - (v) a regional policy statement or proposed regional policy statement:*
 - (vi) a plan or proposed plan; and*
 - (c) any other matter the consent authority considers relevant and reasonably necessary to determine the application.’*

Applications for resource consent under the FTAA are not required to meet the requirements of Section 104. Nevertheless, consistent with Section 104 (1)(a), the actual and potential effects on the environment associated with the establishment, operation and maintenance of the proposed activities, are set out in **Part 6** and the relevant technical assessments in **Schedule D**. In accordance with Section 104 (1)(b), consistency with the relevant provisions of relevant policy statements, plans and proposed plans are set out below.

3.2 Part 2

This application is consistent with Part 2 (Sections 5, 6 and 7) of the RMA.

Section 5 sets out that the purpose of the RMA is to promote the sustainable management of natural and physical resources. As identified throughout this application the project will deliver significant economic and social benefits, some positive ecosystem services and cultural benefits through enabling iwi aspirations in

aquaculture, all while ensuring that environmental effects are acceptable, well managed and consistent with the highest order national instrument, the NZCPS.

The application is consistent with Section 5 subsection 2 as follows:

Section 5 Subsection 2	Comment
(a) sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and	The potential environmental effects have been comprehensively assessed and determined to be generally no more than minor. There will be some localised effects that are more than minor; site specific landscape and natural character effects at Papatua; close range visual and amenity effects at Richmond Bay; and effects on visual amenity, the navigation experience and recreation at Onapua Bay; but those effects are considered appropriate in their location. Behavioural effects on dusky dolphin at Hāpuku Rock may be up to moderate, reflecting uncertainty in the existing knowledge rather than an identified effect mechanism, and will be addressed through Clearwater's research contribution. Cultural effects are for iwi to determine. The activities will provide positive ecosystem services such as habitat creation. Furthermore, farmed shellfish are a sustainable, nutritious and low carbon protein food. Further detail is included in Part 6 Environmental Effects and the Technical Reports in Schedule D .
(b) safeguarding the life supporting capacity of air, water, soil, and ecosystems; and	
(c) avoiding, remedying, or mitigating any adverse effects of activities on the environment	

Table G1 Assessment against RMA Section 5

The application is consistent with Section 6 – the matters of national importance as follows:

Section 6 Subsection	Comment
(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	• The Papatua site is within an ONL, an HNC and partially within an area of ONC. The Guards Bay site is within an ONL. The Okuri Bay site is within an area of VHNC. The Hāpuku Rock site is in an ONL and the Onapua Bay site within an HNC. The Richmond site is not within any mapped area. • There will be some adverse visual effects on the values of those mapped areas. However, those effects will be minimised due to the low lying nature and recessive colour of the surface structures (typically black buoys, with the exception of orange floats required for maritime safety purposes). • The structures will be visible in close proximity and visibility will reduce with distance from the farm. Whether the visibility of the structures has an impact on the values and characteristics is a matter of site specific assessment. The land use at the vicinity of each site is characterised by a primary production
(b) The protection of outstanding natural features and	

landscapes from inappropriate subdivision, use, and development	character including pastoral farmland and forestry and in some cases, values have been diminished by erosion. The applicants will be farming indigenous Greenshell mussels, flat oysters and seaweeds in their natural habitat, with no feed or additives. In that sense, the shellfish and seaweed farming proposed is 'close to nature.'
(c) The protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna	• The proposed marine farms are located over an environment well suited to shellfish and seaweed farming and there are no ecologically significant marine sites or areas of biogenic habitat that would be impacted by the farms. • Effects would be limited to under and close to the growing structures and would reverse in 5 to 11 years after the farm is removed.²⁶⁹ • Shellfish and seaweed farming is known to provide ecosystem services including habitat creation. • There will be negligible water column effects. Typically, little if any effects are detectable beyond the boundaries of shellfish farms and the proposed sites are in well flushed environments. • The effects of shellfish farms are insignificant compared to other terrestrial and regional oceanographic drivers. • Effects on marine mammals are expected to be no more than minor except for on dusky dolphin at Hāpuku Rock. Mussel and oyster farms have been coexisting with marine mammals since the inception of the industry. • There may be negligible to moderate effects on the habitat of dusky dolphins at the Hāpuku Rock site, but this species is characterised as Not Threatened and there are a number of environmental factors that could be contributing to the changing behaviour of the species in the area. Clearwater have proposed to contribute co-funding to a research programme to enable understanding of dusky dolphin presence and behaviour in Admiralty Bay. • The applicants have proposed MMMPs as conditions of consent. • Effects on the endangered king shag are not anticipated, including the colony to the south of the Papatua site at the Hunia Peninsula. The draft conditions include a condition requiring the avoidance of vessel transit within 200 metres of colonies. • Recent studies show that king shag have individual foraging preferences. Some prefer to forage in marine farms, and the birds frequently use marine farms as roosting sites for rest or to digest their food. • No adverse effects on other seabirds are anticipated. • All sites will be operated in accordance with the A+ Sustainable Management Framework and the MFA ECP thereby ensuring that all best practices are followed to minimise the chance of marine mammal and seabird interactions. • There will be no more than minor biosecurity effects, any residual effects will be mitigated to the extent practical by the applicants operating biosecurity best practices set out in the A+ Biosecurity Standards and the applicants have proposed BMPs as conditions of consent.

²⁶⁹ Davidson, R.J., Scrimgeour, G.J., Richards, L.A. and Locky, D., 2024. Multi-spatial and temporal assessments of impacts and recovery of epibenthic species and habitats under mussel farms in the Marlborough Sounds, New Zealand. *Journal of Shellfish Research*, 43(1), pp.15-28. <https://www.researchgate.net/publication/389554576>

	• The applications provide a diversity of sites in the Outer Sounds for mussel farming as well as in Onapua Bay for flat oyster farming thereby enabling the industry to further mitigate biosecurity risk. • Flat oyster farming at Onapua Bay will be in accordance with Bonamia TAG recommendations and subject to Biosecurity Act permissions.
(d) The maintenance and enhancement of public access to and along the coastal marine area, lakes, and rivers	• Navigation through and around the farms for recreational fishing vessels will be enabled. Effects on fisheries resources will be no more than minor and, in some respects, positive. • There will be no more than minor recreational effects. Shellfish and seaweed farms are known to have positive effects for recreational fishing. • The farm blocks will be sited in a manner that allows for navigation to and along the shore. Public access to the sites will still be enabled.
(e) The relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga.	• It is for iwi to determine cultural effects. • The Richmond Bay site has been provided by the other five applicants as a gift to iwi and 17.7% of the lines of the Papatua site will be set aside for them as nursery space. This provides a significant package of opportunity for iwi to progress iwi aquaculture aspirations over and above any Crown obligations that will be triggered in the granting of new space. • The application sites are not within a formal mātaihai,²⁷⁰ taiāpure or rāhui area. They are subject to applications under MACAA. • During engagement with pou taiao cumulative ecological and cultural effects were raised as the key concern noting that cultural values are intrinsically linked to ecological health. • It is also for iwi to determine effects on customary fishing however the EclA supports the applicants' initial assessment that effects on customary fishing will be no more than minor. • The applicants anticipate ongoing engagement with iwi on these applications and resulting activities.

Table G2 Assessment against RMA Section 6

The application is consistent with Section 7 – the other matters that decision makers shall have particular regard to as follows:

Section 7	Comment
(a) Kaitiakitanga	• It is for iwi to determine cultural effects. • The Richmond Bay site has been provided by the other five applicants as a gift to iwi and 17.7% of the lines of the Papatua site will be set aside for them as nursery space. This provides a significant package of opportunity for iwi to progress iwi aquaculture aspirations over and above any Crown obligations that will be triggered in the granting of new space. • The application sites are not within a formal mātaihai,²⁷¹ taiāpure or rāhui area. They are subject to applications under MACAA.

²⁷⁰ Although Ngāti Kuia has applied for a mātaihai in the area that includes the Guards Bay application.

²⁷¹ Although Ngāti Kuia has applied for a mātaihai in the area that includes the Guards Bay application.

	- During engagement with pou taiao cumulative ecological and cultural effects were raised as the key concern noting that cultural values are intrinsically linked to ecological health. - It is also for iwi to determine effects on customary fishing however the EclA supports the applicants' initial assessment that effects on customary fishing will be no more than minor. - The applicants anticipate ongoing engagement with iwi on these applications and resulting activities.
(b) The efficient use and development of natural and physical resources	Creating spat nurseries in productive areas and strategically located new productive mussel farming space in areas that add diversity, resilience and productivity, will increase the efficient use of the existing mussel farms in the Marlborough Sounds. Enabling high value flat oyster farm represents an efficient use of the relatively small space being applied for.
(c) The maintenance and enhancement of amenity values	- There will be some amenity effects in the form of low lying buoys and navigational aids however these are considered appropriate in the context of the broader landscapes. - The main noise generated is during harvest, which occurs infrequently, and over relatively short periods and the proposed sites have sufficient distance from nearby dwellings. - The industry operates in accordance with the MFA Certification Programme which includes best practices for noise as well as in accordance with the noise standards set out in the MEP.
(d) Intrinsic values of ecosystems	The ecosystem effects have been comprehensively assessed and determined to be no more than minor, and the activities will provide positive ecosystem services such as habitat creation. Furthermore, farmed shellfish are a sustainable, nutritious and low carbon protein food. Further detail is included in Part 6 Environmental Effects and the Technical Reports in Schedule D.
(e) Recognition and protection of the heritage values of the sites, buildings, place, or areas	There will be no more than minor effects on historic heritage.
(f) Maintenance and enhancement of quality of the environment	Appropriately located longline shellfish and seaweed farming is known to create ecosystem benefits in the Marlborough Sounds. The industry contributes significantly to programmes that seek to enhance the environment in the region.
(g) Any finite characteristics of natural and physical resources	Longline shellfish and seaweed farming is a high value non extractive primary industry which creates significant value with limited environmental effects. Effects quickly become undetectable beyond the boundaries of the marine farm.

Table G3 Assessment against RMA Section 7

4.0 New Zealand Coastal Policy Statement

The NZCPS came into effect in 2010 and provides higher level objectives for sustainable use of the coastal environment, including recognition of marine farming's economic contribution, while directing that adverse effects on threatened indigenous species and priority values be avoided.

The Government made amendments to the NZCPS in 2025, some of which are relevant to aquaculture. Amendments to Policy 6 enabled recognition of operational (as well as functional) need to locate in the coastal marine area. Definitions for these terms have been added from the national planning standards. Policy 8 has been amended to better recognise that aquaculture can provide ecological benefits as well cultural, social and economic. The amendments also provide for aquaculture within gazetted aquaculture settlement areas.

Objective	Policies	Assessment
Objective 1 Ecosystem Values and Coastal Water Quality	Policy 3 Adopt a precautionary approach towards activities whose effects on the coastal environment are uncertain, unknown, or little understood, but potentially significantly adverse.	Aquaculture is perhaps the most studied and well understood activity occurring in the coastal marine area. Aquaculture is consistent with sustainable management: what effects exist are reversible upon removal of farms. The proposal does not justify a precautionary approach.
	Policy 11a Avoid adverse effects on significant indigenous biodiversity (e.g. indigenous taxa that is threatened or at risk).	- The sites are located well away from any ESMS or biogenic seabed habitat. - Mussel farms are known to have neutral and, in some cases, positive effects for king shag, particularly as the industry avoids vessel traffic in the vicinity of colonies.
	Policy 11b Avoid significant adverse effects, and avoid, remedy or mitigate other adverse effects of activities on other habitats, areas and ecosystems in the coastal environment.	
	Policy 12 Control activities in, or near, the coastal marine area that could have adverse effects on the coastal environment by causing harmful aquatic organisms to be released or otherwise spread.	- There may be up to a moderate effect on dusky dolphin habitat from the Hāpuku Rock proposal, but this species is classified as Not Threatened and the applicant has proposed to contribute to a research programme. - The applicants have proposed MMMPs in the draft conditions. - There is no evidence that the proposals will create adverse effects on significant indigenous biodiversity or significant adverse effects on other biodiversity.
	Policy 21 Enhance water quality in areas where it has degraded.	The applicants follow the industry best practice A+ Sustainable Management Framework which includes Biosecurity Standards and have proposed BMPs. The Onapua Bay proposal increases options for flat oyster biosecurity.
	Policy 23 Have particular regard to the sensitivity of the receiving environment, the capacity of the receiving environment, and the potential for significant adverse effects on ecosystems and habitats when managing discharges to the coastal environment.	
Objective 2 Natural Character	Policy 13(1)(a) Avoid adverse effects on the characteristics and	There will be negligible water column effects. Typically, little if any effects are detectable beyond the boundaries of a shellfish farm and the proposed sites are in well flushed environments. The effects of shellfish farms are insignificant compared to other terrestrial and regional oceanographic drivers.
		The Papatua site is within an ONL, an area of HNC and partially within an area of ONC. The Guards Bay site is

and Natural Features / Landscapes	qualities that contribute to the outstanding natural character of areas in the coastal environment.	within an ONL. The Okuri Bay site is within an area of VHNC, the Hāpuku Rock site is in an ONL and the Onapua Bay site within an HNC. Richmond is not within any mapped area.
	Policy 15(a) Avoid adverse effects on the characteristics and qualities that contribute to areas in the coastal environment areas that are outstanding natural features and landscapes.	There will be some adverse visual effects on the values of those mapped areas. However, those effects will be minimised due to the low lying nature and recessive colour of the surface structures (typically black buoys, with the exception of orange floats required for maritime safety purposes).
	Policies 13(1)(b) and 15(b) Avoid significant adverse effects, and avoid, remedy, or mitigate other adverse effects of activities, on natural character and other natural features and natural landscapes in the coastal environment.	The structures will be visible in close proximity and visibility will reduce with distance from the farm. The land at each site is characterised by a primary production character including pastoral farmland and forestry and in some cases, values have been diminished by erosion. The applicants will be farming indigenous Greenshell mussels, in their natural habitat, with no feed or additives. In that sense, mussel farming is 'close to nature.' The Onapua Bay site has the potential to farm a range of seaweed species which are known to enhance the biotic aspects of natural character.
Objective 3 Tangata Whenua Values and Interests	The objectives and policies of the NZCPS direct that the principles of the Treaty of Waitangi be taken into account and that the role of tangata whenua as kaitiaki of the coastal environment be recognised.	- It is for iwi to determine cultural effects. - The Richmond Bay site has been provided by the other five applicants as a gift to iwi and 17.7% of the lines of the Papatua site will be set aside for them as nursery space. This provides a significant package of opportunity for iwi to progress iwi aquaculture aspirations over and above any Crown obligations that will be triggered in the granting of new space.
	Policy 2 further elaborates on this by recognising that tangata whenua have traditional and continuing cultural relationships with areas of the coastal environment, and that opportunities should be provided for tangata whenua to exercise kaitiakitanga over these waters.	- The application sites are not within a formal mātaihai,²⁷² taiāpure or rāhui area. They are subject to applications under MACAA. - During engagement with pou taiao cumulative ecological and cultural effects were raised as the key concern noting that cultural values are intrinsically linked to ecological health. - It is also for iwi to determine effects on customary fishing however the EclA supports the applicants' initial assessment that effects on customary fishing will be no more than minor. - The applicants anticipate ongoing engagement with iwi on these applications and resulting activities.
Objective 4 Public	Objective 4 seeks to maintain and	Effects on fishing are not anticipated. Effects on fisheries

²⁷² Although Ngāti Kuia has applied for a mātaihai in the area that includes the Guards Bay application.

Access and Recreational Opportunities	enhance the public open space qualities and recreation opportunities of the coastal environment, including by recognising that the coastal marine area is an extensive area of public space for the public to use and enjoy.	resources will be no more than minor and, in some respects, positive. Shellfish and seaweed farms are known to provide habitat for fish. • Navigation through and around the farms for recreational vessels will be enabled. • The proposed farm blocks are sited in a manner that allows for navigation to and along the shore. • Public access to the sites will still be enabled.
	Policy 6 also recognises the recreation qualities and values of the coastal marine area.	
Objective 6 Social, Economic and Cultural Wellbeing	Objective 6 and its associated policies (including Policy 6) recognise that the protection of values of the coastal environment should not preclude use and development in appropriate places and forms, and within appropriate limits. The objectives and policies specifically recognise those uses which depend on the natural and physical resources of the coastal environment, including for functional and operational reasons.	• Aquaculture is well recognised for providing a range of social benefits to the mostly regional communities it operates in. Aquaculture jobs can be wide and varied and provide many opportunities for career development both at sea and on land and the industry contributes significantly to community initiatives in Marlborough. The proposals have a functional and operational need to be located at the application sites.
	Policy 8 recognises the significant existing and potential contribution of aquaculture to the social, economic and cultural wellbeing. Policy 8 also seeks that the regional policy statement and regional plans include provisions for aquaculture activities in appropriate places in the coastal environment and that the ecological, social and economic benefits of aquaculture be taken into account.	• Policy 8 of the NZCPS requires aquaculture to be provided for in appropriate places, but that is being limited without spat nurseries. • The joint proposal presents substantial benefits for the aquaculture industry in Marlborough which were not anticipated during the development of the MEP. • The proposals together address critical climate change adaptation challenges, focusing primarily on resolving the bottleneck in mussel production by providing high quality spat nursery capacity as well adding diversity and resilience by enabling single year class farming of high value flat oysters. • The proposals also include new mussel farming space specifically for Te Taihu Iwi in an area that was identified during development of the MEP as appropriate for aquaculture. • Well-located longline shellfish and seaweed farming is known to provide ecosystem benefits.

Table G4 Assessment against NZCPS

5.0 Marlborough Environment Plan

The MEP is the new resource management document for the Marlborough region. It is a combined regional policy statement, regional coastal plan, regional plan and district plan that was publicly notified in June 2016, with the marine farming provisions (Variation 1) being notified in December 2020. The MEP became operative in part in June 2025 and further non regional coastal plan provisions, including many for Variation 1 were made operative in April 2026. It is still subject to a limited number of appeals.

The proposed MEP was not intended to be conclusive. The plan itself identifies criteria that will be applied when considering future plan changes.²⁷³

The plan used prohibited activity status in order to allocate resources. Prohibited activity status was not used because the effects of additional aquaculture are significant. Rather, in order to encourage existing marine farmers to move into AMAs it needed to be a prohibited activity for the farm to remain where it is and it needed to be a prohibited activity for somebody else to move into space intended for another farm.

Provisions as originally proposed in 2015 and 2016 would have left all marine farms in the Sounds as discretionary activities. As a consequence, a full assessment of all environmental effects and potentially public notification, would have been required on a farm by farm basis. Given that there are 590 farms in the Sounds, that would have resulted in costs in the tens of millions. A solution to that problem consistent with NZCPS Policy 8 needed to be found.

In September 2016, MDC decided to appoint a Marlborough Aquaculture Review Working Group to assist the Council with the review process. That group consisted of members of the marine farming industry, community organisations and central government agencies. Alongside it, a technical advisory group was established. The advisory group reported in July 2019. A series of recommendations were made including:

- Areas considered appropriate for marine farming were provided for by way of Aquaculture Management Areas (AMAs); and
- Marine farming outside of AMAs but within the enclosed waters of the Marlborough Sounds be a prohibited activity.

These decisions were specifically made as a spatial allocation.

The terms of reference for the working group were developed by MDC in a document dated 22 March 2017. Those terms of reference emphasise the fact that the working group was to provide for the existing industry. Specifically, 45 geographical units, known as coastal management units or CMUs were defined.

The terms of reference stated:

- *'The intent is to create AMAs in each CMU where marine farms already exist. There would be discrete areas that correspond to the size and arrangement of existing marine farms. Such applications would be progressed as controlled activities'.*

It was noted:

²⁷³ Policy 14.21.6 and Policy 14.21.7 [Operative in part - Policy - Chapter 14 - Use of the Coastal Environment and the Allocation of Coastal Space \(Updated 10 September 2026\)](#).

- 'As the working group considers the values that exist within each CMU, it may identify opportunities for new AMAs. Given that this is new space, applications for coastal permits will be assessed as discretionary activities'.

As it happened, the working group contributed to, but did not complete, identification of the spatial area in which existing marine farms could be located. That then became the focus of the hearings before the hearings panel once the aquaculture variation, Variation 1 was notified. Some submitters did suggest that new space might be created, but that was primarily to compensate for other sites lost.

While some submitters did submit on new space, the hearings panel decision did not provide for all existing farms to have AMAs. Rather it found that the provision of new space for the relocation of the existing marine farms in Appendix 4 (the so called inappropriate farms) should be considered through a further plan change process. This is consistent with the plan providing for the application for new space in the future.

The main premise of Variation 1 was that aquaculture should be managed as follows:

- Maintain the same level of aquaculture in the inner (enclosed water) Sounds.
- Move marine farms seaward to improve access and restore foreshore euphotic zone health (the upper layer of a waterbody that receives enough sunlight to enable photosynthesis).
- Relocate farms where necessary to reduce effects on other coastal values.
- Provide future capacity for marine development outside the enclosed waters (open water) of the sounds, guided by Marlborough Environment Plan policies and values.

This was achieved by the creation of AMAs, discreet locations for most of the existing farms to be provided for as a controlled activity. In all other areas (except for open waters) new aquaculture is prohibited.

Prohibited activity status is often used where the environmental effects of an activity are unacceptable or where there are substantial risks inherent in the activity warranting first a plan change and then a resource consent application for any new development. The prohibited activity status in the MEP cannot be justified on either of those grounds. Rather, prohibited activity status was used as a tool to allocate resources. Nearly all existing farms were provided for. However, to ensure that the transition to the Variation 1 layout, prohibited activity status was used for the remainder of the space. Since the notification of the MEP, there has been no detailed assessment of the appropriateness for aquaculture. The prohibited activity status is best understood as a holding position pending a detailed analysis which is what this process provided.

The leading case on prohibited activities is the Court of Appeal decision in *Coromandel Watchdog of Hauraki Inc v Chief Executive of the Ministry of Economic Development*²⁷⁴. That case noted that prohibited activity status might be used:

- Where an activity would never be allowed during the currency of the local authority's plan;
- Where there is insufficient information about an activity to determine what provision should be made for it;
- Where a staged approach is intended. If the local authority wishes to prevent development in one area into another area has been developed, prohibited activity status may be appropriate for the undeveloped area;

²⁷⁴ *Coromandel Watchdog of Hauraki Inc v Chief Executive of the Ministry of Economic Development* [2007] NZCA 473.

- Where it is necessary to allow an expression of social or cultural outcomes or expectations such as, for example, in respect of nuclear power generation;
- Where it is intended to restrict the allocation of resources. In that context aquaculture is specifically referred to²⁷⁵; and
- Where the council wishes to establish priorities other than on a 'first in first served' basis.

In the case of Marlborough, the purpose of using the prohibited activity status was to provide an allocation method and to establish priorities other than on a 'first in first served basis'. This was to enable the continuation of the existing industry, not growth, adaptation or other productivity needs. However, the MEP does recognise that the climate is changing and resilience and adaptation is needed²⁷⁶.

Appropriately sited aquaculture results in a change to the environment, but that that change is not often considered to be adverse. The use of prohibited activity status for aquaculture does not signal that the environmental effects are adverse. Certainly, as part of the MEP process, the justifications for prohibited activity status lay elsewhere.

Variation 1 both identified appropriate places for existing aquaculture in Marlborough and provided a pathway for new aquaculture to be created.

Every plan is accompanied by an evaluation of the benefits and costs of that plan change against other alternatives which might exist. MDC's Section 32 analysis provided this.²⁷⁷

The matter is summarised on pages 28 to 29:

- *'The Council have decided that the PMEP should provide for about the same level of aquaculture activities as currently exists. They chose this option because:*
 - *The Council do not have enough robust evidence to prove either that the marine environment has the capacity to absorb more aquaculture, or that the adverse effects require the level of farming to be reduced (see below).*
 - *Some communities are strongly opposed to an increase in aquaculture – the 'social' carrying capacity has been met.*
 - *This option retains the existing economic benefits generated by the industry.*
- *To reduce the level of marine farming through the reallocation process, the Council needs evidence that the benefits of reducing the number of marine farms (for example on other values such as ecology, amenity, natural character, public access etc) is necessary to achieve the objectives of the PMEP, taking into account the economic costs of reducing the size of the industry. The Council considers the information it has collated (including information from the KCSRA) does not yet demonstrate this.*
- *On the flip side, to increase the level of farming the Council needs to be satisfied that there is robust evidence that the marine environment can absorb more farming without generating adverse effects. The aquaculture industry has not provided this evidence, except in the case of Onapua Bay. The applicants*

²⁷⁵ *Coromandel Watchdog of Hauraki Inc v Chief Executive of the Ministry of Economic Development* [2007] NZCA 473 at [34](e).

²⁷⁶ See in particular Marlborough Environment Plan, Volume 1, Chapter 6 Objective 6.1 and Policy 6.1.3. [Operative in part - Policy - Chapter 6 - Climate Change and Ocean Acidification \(Updated 20 July 2026\)](#).

²⁷⁷ Perception Planning., [Technical Advisory Group \(TAG\) Report: Recommendation for the inclusion of an aquaculture management area \(AMA\) in the Proposed Marlborough Environment Plan \(PMEP\) within Onapua Bay, Tory Channel](#) (August 2026).

for the Apex Marine Farm in Onapua Bay have provided sufficient evidence (which has been peer reviewed) to demonstrate that Onapua Bay can accommodate a marine farm in this area. Variation 1B is in draft form, with consultation currently ongoing. The Council intends to make a decision about this variation next year.

- *As the discussion in respect of Onapua Bay makes clear, the Council is open to the expansion of the aquaculture industry on receipt of the appropriate evidence. This process provides the opportunity to collate and put that evidence forward'.*

The same pattern occurred through the course of the hearings. The industry tendered little evidence in respect of new space.²⁷⁸ It tendered no evidence, for example, in respect of the proposed Richmond Bay space. The panel concluded that it lacks information at this time to enable such an assessment within the scope of this variation.²⁷⁹ It recommended that *'the establishment of any new AMAs for the relocation of existing marine farms in Richmond Bay are considered through a future plan change'.*

The panel provided policies against which future new AMAs are to be assessed. Those policies are numbered 14.21.5 – 14.21.7. This application does not create AMAs because the Fast-track process cannot change plans. Nonetheless, it is instructive to review this application against those policies that would apply to new AMAs in the MEP. Where the policies refer to relocation space, those have been marked as being non applicable. As one can see, the primary inconsistency between these proposals and the plan is in respect of landscape and natural character values. The landscape and natural character assessments which underpin the plan provisions were not undertaken with any liaison with tangata whenua.²⁸⁰ Nevertheless, the peer reviewed expert landscape and natural character assessment for each site demonstrate the effects on the values of those overlays will be no more than minor.

Other areas of potential inconsistency relate to uncertainty regarding dusky dolphins at Hāpuku Rock, for which Clearwater has proposed contribution to a research programme, the potential for effects on the navigation experience at Onapua Bay, and siting outside the 'coastal ribbon' for Papatua and Guards Bay. However, there are other farms in the Marlborough Sounds that do not comply with those policies.

In most other respects, the applications are generally in accordance with the policies that guide new AMAs.

The MEP includes a range of other provisions of relevance, particularly relating to Marlborough's tangata whenua Iwi, the sustainable management of natural and physical resources, climate change and ocean acidification, natural character, landscape, indigenous biodiversity, public access and open space, and use of the coastal environment.

Assessment of consistency with the provisions of the MEP is set out over.

²⁷⁸ Onapua Bay being a notable exception.

²⁷⁹ at [811].

²⁸⁰ Boffa Miskell Ltd, *Marlborough Landscape Study: Landscape Characterisation and Evaluation* (report for Marlborough District Council, August 2015) at 19 ('no liaison with Tangata Whenua has taken place during the assessment of this landscape study'); and Boffa Miskell Ltd, *Natural Character of the Marlborough Coast: Defining and Mapping the Marlborough Coastal Environment* (report for Marlborough District Council, June 2014) at 23 ('no engagement with Tangata Whenua has yet been undertaken ... This is a recognised gap').

Table G5 Assessment of proposal against the AMA creation policies in the MEP

This analysis presupposes that what is being created is a new AMA. However, there is no power to create new AMAs under the Fast-Track Approvals Act 2024. Nonetheless, this assessment enables an analysis of the effects of the proposal in the context of what the MEP would enable. Where the policies refer to making provision for existing space, that has been recorded as not applicable.

Provision	Text of Provision	Richmond Bay	Papatua	Guards Bay	Hāpuku Rock	Okuri Bay	Onapua Bay
14.21.5	AMAs established through Variation 1 (other than ASAs) provide for existing marine farms within the Enclosed Water CMUs. AMAs within the Enclosed Waters CMUs are generally located:						
(a)	In the coastal ribbon between 100 and 300 metres from mean low water (other than those AMAs that provide for intertidal marine farms or those marine farms set out in (b)) to protect natural, recreational and amenity values of the coastal marine area of the Marlborough Sounds;	Generally consistent. The farm is between 100 and 300 m from shore.	Not consistent. The farm is between 200 and 1,500 m from shore	Not consistent. The farm is between 200 and 1,250 m from shore	Not consistent. The farm is between 100 and 600 m from shore	Not consistent. The farm is between 170 and 375 m from shore	Generally consistent. The farm is sited between 80 and 200 m from shore.
(b)	In the same location as the existing marine farm in the Admiralty Bay CMU, Port Ligar CMU, Forsyth Bay CMU and Port Underwood CMU when a seaward move into the coastal ribbon in (a) may have adversely affected the ecological values within those CMU;	Not applicable. Not within the Admiralty Bay CMU, Port Ligar CMU, Forsyth Bay CMU or Port Underwood CMU.	Not applicable. Not within the Admiralty Bay CMU, Port Ligar CMU, Forsyth Bay CMU or Port Underwood CMU.	Not applicable. Not within the Admiralty Bay CMU, Port Ligar CMU, Forsyth Bay CMU or Port Underwood CMU.	Not applicable. Not within the Admiralty Bay CMU, Port Ligar CMU, Forsyth Bay CMU or Port Underwood CMU.	Not applicable. Not within the Admiralty Bay CMU, Port Ligar CMU, Forsyth Bay CMU or Port Underwood CMU.	Not applicable. Not within the Admiralty Bay CMU, Port Ligar CMU, Forsyth Bay CMU or Port Underwood CMU.
(c)	To reflect a similar consented area to accommodate the same or shorter total consented length of backbone or intertidal structures;	Not applicable. What is proposed is new space.	Not applicable. What is proposed is new space.	Not applicable. What is proposed is new space.	Not applicable. What is proposed is new space.	Not applicable. What is proposed is new space.	Not applicable. What is proposed is new space.
(d)	20 metres from reefs (including cobble habitat)	Consistent	Consistent	Consistent	Consistent	Consistent	Consistent
(e)	20 metres from sites that met Policy 9.1.1 and the ecological significance criteria in Appendix 3, including ecologically significant marine sites identified in Appendix 27 and shown on the Volume 4 planning maps, except where the installation or operation of the marine farm is consistent with Policy 9.3.1.	Consistent	Consistent	Consistent	Consistent	Consistent	Consistent
(f)	To maintain and enhance the recreational and amenity values of the Marlborough Sounds by appropriate separation from publicly accessible boat launching facilities, jetties, publicly accessible beaches, moorings and anchorages of refuge;	Consistent. Mr Bentley had proposed a farm layout that would have been much closer to Port Pohuenui Homestead. The amendments of this layout have resulted in the application being consistent with this sub-policy.	Consistent	Consistent	Consistent	Consistent. There are private residences that overlook Okuri Bay. However, the proposed farms will be at a substantial distance not to have a significant effect on amenity, but avoids significant adverse effects on the key characteristics identified in Volume 3, Appendix 2 of the plan.	Consistent. There are three or four residences that overlook the farms at distances of approximately 500m or more. Those sites are slightly elevated and consequently are at a distance where in some conditions the farms will be visible. In other conditions they will not be.
(g)	To achieve safe and efficient navigation corridors	Consistent	Consistent	Consistent	Consistent	Consistent	Consistent. While there may be up to moderate effects on navigational experience the navigation corridor west and south

							of the proposed farms will be maintained.
(h)	To avoid significant adverse effects on the amenity values experienced at existing dwellings;	Consistent	Consistent	Consistent	Consistent	Consistent	Consistent
(i)	To recognise and provide for the traditional and continuing relationship of Marlborough's tangata whenua iwi with the moana and sites of significance.	Consistent (subject to confirmation with iwi)	Consistent (subject to confirmation with iwi)	Consistent (subject to confirmation with iwi)	Consistent (subject to confirmation with iwi)	Consistent (subject to confirmation with iwi)	Consistent (subject to confirmation with iwi)
(j)	Outside areas identified as having high, very high or outstanding levels of natural character in Appendix 2, and outside areas identified as outstanding natural features and outstanding natural landscapes in Appendix 1, (both shown on the maps in Volume 4), where necessary to avoid adverse effects on the characteristics and values of those areas;	Consistent	Not consistent.	Consistent with natural character, not consistent with landscape.	Consistent with natural character, not consistent with landscape.	Consistent with landscape, mapped as very high natural character but avoids adverse effects on the key characteristics identified in Volume 3, Appendix 2 of the plan and is consequently consistent with natural character.	Consistent with landscape, partially mapped as high natural character but avoids adverse effects on the key characteristics identified in Volume 3, Appendix 2 of the plan and is consequently consistent with natural character.
(k)	To avoid significant adverse effects on natural character, or on natural features and natural landscapes;	Considered consistent subject to the views of iwi.	Consistent. The expert landscape and natural character assessment finds the site level effects may be more than minor but not significant and the Te Anamāhanga level effects to be no more than minor.	Consistent. The expert landscape and natural character assessment finds the effects to be no more than minor.	Consistent. The expert landscape and natural character assessment finds the effects to be no more than minor.	Consistent. The expert landscape and natural character assessment finds the effects to be no more than minor.	Consistent. The expert landscape and natural character assessment finds that landscape effects will be more than minor at the bay scale and some visual effects will be more than minor, but no effects are significant.
(l)	To avoid significant adverse effects on the areas, habitats and ecosystems set out in Policy 11(b) of the NZCPS; and	Consistent. The ecological assessment finds the effects to be no more than minor.	Consistent. The ecological assessment finds the effects to be no more than minor.	Consistent. The ecological assessment finds the effects to be no more than minor.	Consistent. The ecological assessment finds the effects to be no more than minor. The farm may have up to moderate effects on dusky dolphin.	Consistent. The ecological assessment finds the effects to be no more than minor.	Consistent. The ecological assessment finds the effects to be no more than minor.
(m)	Away from significant feeding or breeding habitat for New Zealand king shag, elephant fish, dolphins and other important species except where the installation or operation of the marine farm is consistent with Policy 9.3.1.	Consistent. Is in feeding habitat for New Zealand king shag but marine farms provide feeding opportunities for that species. Is located in Important Bird Area.	Consistent. Is in feeding habitat for New Zealand king shag but marine farms provide feeding opportunities for that species. Is located in Important Bird Area.	Consistent. Is in feeding habitat for New Zealand king shag but marine farms provide feeding opportunities for that species. Is located in Important Bird Area.	Is in feeding habitat for New Zealand king shag but marine farms provide feeding opportunities for that species. Is located in Important Bird Area. Is located in Admiralty Bay dusky dolphin habitat which, in the absence of information is classified as moderate. The overall effects on other marine	Consistent. Is in feeding habitat for New Zealand king shag but marine farms provide feeding opportunities for that species. Is located in Important Bird Area.	Consistent.

					mammal species is negligible to very low.		
14.21.6	Additional AMAs in the Enclosed Waters CMUs, and AMAs in Near shore CMUs, and marine farms in the offshore CMU are not appropriate in:						
(a)	Queen Charlotte Sound CMU to protect the particularly high recreational, scenic, and amenity values present in that area;	Consistent. Not in Queen Charlotte Sound CMU	Consistent. Not in Queen Charlotte Sound CMU	Consistent. Not in Queen Charlotte Sound CMU	Consistent. Not in Queen Charlotte Sound CMU	Consistent. Not in Queen Charlotte Sound CMU	Consistent. Not in Queen Charlotte Sound CMU
(b)	The National Transportation Corridor;	Consistent. Not in National Transportation Corridor	Consistent. Not in National Transportation Corridor	Consistent. Not in National Transportation Corridor	Consistent. Not in National Transportation Corridor	Consistent. Not in National Transportation Corridor	Consistent. Not in National Transportation Corridor
(c)	Areas identified as outstanding natural character in Appendix 2, if the AMA and any resulting marine farm would have adverse effects on the values and characteristics of that area;	Consistent. Not mapped as outstanding natural character in Appendix 2	Consistent, the farm is located partially within an area mapped as outstanding natural character, but the expert landscape and natural character assessment finds the values of that area would not be adversely affected.	Consistent. Not mapped as outstanding natural character.	Consistent. Not mapped as outstanding natural character.	Consistent. Not mapped as outstanding natural character.	Consistent. Not mapped as outstanding natural character.
(ci)	Areas identified as high or very high natural character in Appendix 2, if the AMA and any resulting marine farm would have significant adverse effects on the values and characteristics of that area	Consistent. Not mapped as high or very high natural character.	Consistent, the farm is within an area of very high natural character, but the expert landscape and natural character assessment finds that although the site level effects may be more than minor they are not significant.	Consistent. Not mapped as high or very high natural character.	Consistent. Not mapped as high or very high natural character.	Consistent. The farm is located within an area of very high natural character, but the expert landscape and natural character assessment finds the effects to be no more than minor.	Consistent. The farm is located within an area of high natural character, but the expert landscape and natural character assessment finds the effects to be no more than minor.
(d)	Areas identified as outstanding natural features or outstanding natural landscapes in Appendix 1, if the AMA and any resulting marine farming would have adverse effects on the values and characteristics of that area; and.	Consistent	Consistent, the farm is located within an area of outstanding natural landscape, but the expert landscape and natural character assessment finds the effects to be no more than minor.	Consistent. The expert landscape and natural character assessment finds the effects to be no more than minor.	Consistent. The expert landscape and natural character assessment finds the effects to be no more than minor.	Consistent -	Consistent.
(e)	Ecologically significant marine sites identified in Appendix 27 and shown on the Volume 4 planning maps, except where the installation or operation of the marine farm is consistent with Policy 9.3.1.	Consistent	Consistent	Consistent	Consistent	Consistent	Consistent
14.21.7	Unless already considered inappropriate under Policy 14.21.6, the appropriateness of additional AMAs in the Enclosed Waters CMUs and AMAs in the Nearshore CMUs will be assessed considering adverse effects on any of the natural and human use values of the coastal marine area and may be provided only where Policy 14.21.5 is met and:						

(a)	an assessment of the seafloor beneath a proposed AMA and its immediate environs has been completed which shows that there are;						
(a)(i)	no areas that meet Policy 9.1.1 and the ecological significance criteria in Appendix 3 as having significant marine biodiversity value underneath or within 20 metres of the AMA that may be adversely affected by the installation or operation of a marine farm;	Consistent	Consistent	Consistent	Consistent	Consistent	Consistent
(a)(ii)	no reefs (including cobble habitats), biogenic habitats, or indigenous algae beds within 20 metres of the AMA that may be significantly adversely affected by the installation or operation of a marine farm;	Consistent	Consistent	Consistent	Consistent	Consistent	Consistent
(b)	the location, installation and/or operation of the marine farm avoids significant adverse effects on areas, habitats and ecosystems set out in Policy 11(b) of the NZCPS;	Consistent	Consistent	Consistent	Consistent	Consistent	Consistent
(c)	the location of an AMA and subsequent marine farm will not unreasonably adversely affect navigation that would be caused by introducing speed restrictions across the majority of a bay;	Consistent	Consistent	Consistent	Consistent	Consistent	Consistent
(d)	public access for recreational opportunities is maintained;	Consistent	Consistent	Consistent	Consistent	Consistent	Consistent
(e)	the operation of the subsequent marine farm would have no more than minor adverse effects on amenity values, including visual amenity, resulting from lighting and noise; and	Consistent	Consistent	Consistent	Consistent	Consistent	Consistent
(f)	the AMA is located away from areas with significant cultural values where that is necessary to protect the relationship of Marlborough's tangata whenua iwi with those places.	Consistent (subject to confirmation with iwi)	Consistent (subject to confirmation with iwi)	Consistent (subject to confirmation with iwi)	Consistent (subject to confirmation with iwi)	Consistent (subject to confirmation with iwi)	Consistent (subject to confirmation with iwi)

Table G6 Assessment of the proposal against the remaining relevant policies in the MEP

MEP Provisions		Purpose	Assessment
Objective 3.3 – 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.	Policies 3.1.1, 3.1.2, 3.1.3, 3.1.4 and 3.1.10	- These policies seek to ensure resource management gives effect to the principles of the Treaty of Waitangi / Te Tiriti o Waitangi and recognises the distinct status of iwi. - The policies require early consultation with tangata whenua iwi so that cultural values inform proposals and direct decision makers to consider how kaitiakitanga, mauri (particularly of coastal and fresh water), mahinga kai and customary uses and practices are maintained or enhanced. - They encourage iwi management plans - They provide for the protection of sites and places of significance, including those not scheduled in the MEP, by avoiding, remedying or mitigating adverse effects on both tangible and intangible cultural values.	- The applicants recognise the Te Taihū have statutory acknowledgements which recognise their mana moana in the vicinity of the application sites. - Consultation with tangata whenua has been ongoing through the life of the application. - The Richmond Bay consent has been provided by the other five applicants as a gift to iwi and 17.7% of the lines of the Papatua site will be set aside for them as nursery space. This provides a significant package of opportunity for iwi to progress iwi aquaculture aspirations over and above any Crown obligations that will be triggered in the granting of new space. - The application sites are not within a formal mātaihai²⁸¹, taiāpure or rāhui area. They are subject to applications under MACAA. - During engagement with pou taiao cumulative ecological and cultural effects were raised as the key concern noting that cultural values are intrinsically linked to ecological health. - It is for iwi to determine cultural effects. - It is also for iwi to determine effects on customary fishing however the EclA supports the applicants' initial assessment that effects on customary fishing will be no more than minor.
Objective 3.4 – 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.			
Objective 3.6 – Resource management decision making processes that give particular consideration to the cultural and spiritual values of Marlborough’s tangata whenua iwi.			

²⁸¹ Ngāti Kuia has a mātaihai application in progress that includes Guards Bay
Aquaculture Direct Limited

			The applicants anticipate ongoing engagement with iwi on these applications and resulting activities.
Objective 4.1 – Sustainable use and development of Marlborough’s natural resources supports Marlborough’s social, economic and cultural wellbeing.	Policies 4.1.2, 4.1.3, and 4.1.5.	- These policies seek to enable the sustainable use and development of Marlborough’s natural resources in a way that supports the social, economic and cultural wellbeing of its communities, while managing adverse environmental effects. - The policies enable sustainable use and development through allocation frameworks, and permitted, controlled and resource specific rules. - They direct that the quality of natural resources be maintained and enhanced. - They require decision makers to have regard to any offset or compensation measures proposed where significant residual adverse effects cannot be avoided, remedied or mitigated.	- The joint proposal constitutes sustainable use of Marlborough's resources as it enables much needed resilience, diversification and productivity for the aquaculture industry in Marlborough in a manner which was not anticipated during the development of the Marlborough Environment Plan. The proposal enables the industry: - To increase mussel spat availability and resilience so that the existing farms in the Marlborough Sounds can be operated at their full productive potential; - To add diversity of production farming space including to reduce impacts of rainfall closures to smooth production windows; - To thereby optimise the use of existing infrastructure such as hatcheries, wharves and factories; - To address flat oyster industry biosecurity risks and to provide a pathway to growth for this high value species; - To involve tangata whenua aspirations and kaitiakitanga within the application itself. - The expert assessments provide evidence that the quality of natural resources will be maintained.

			Shellfish and seaweed farming can provide ecosystem services including habitat for fish. • The expert assessments do not find any significant adverse effects and offsetting is not indicated.
Objective 4.3 The maintenance and enhancement of the visual, ecological and physical qualities that contribute to the character of the Marlborough Sounds.	Policies 4.3.1, 4.3.2, 4.3.3, 4.3.4 and 4.3.5.	• These policies seek to 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 while recognising that the Sounds is a dynamic environment and has already undergone considerable change.	• The expert ecological assessments set out the levels of modification that exist in the Marlborough Sounds environment and find that in most respects effects on ecological values will be no more than minor. There may be up to moderate effects on dusky dolphin but that species is Not Threatened and Clearwater have proposed to contribute to an Admiralty Bay research programme similar to the King shag project which will help to increase understanding of the numerous factors that have contributed to decline in presence and change in behaviour. • Shellfish and seaweed farming can provide ecosystem services including habitat for fish. • Any effects on landscape or natural character will typically have an effect out to approximately 300m. Beyond that except for elevated sites the effects will be minor. The affected areas are small, relative to the size of the relative mapped landscape or natural character area and relative to the landscape and natural character of the Sounds as a whole. • The expert assessments support the finding that the proposals will: ○ Have appropriate visual effects which are reversible upon removal of the farms ○ Meet the indigenous biodiversity policy

			requirements set out in the NZCPS ○ Contribute ecosystem services to an already degraded marine environment.
Objective 6.1 – Mitigation of and adaptation to the adverse effects on the environment arising from climate change or ocean acidification.	Policy 6.1.3	• This policy seeks to enable primary industries including aquaculture to adapt to the effects of climate change and ocean acidification.	• The six applications combined are a response to increasing challenges from climate change to the region’s aquaculture industry. • They enable industry adaptation by placing farms in cooler, nutrient rich areas that are more resilient to warming and ocean acidification, and by diversifying nursery sources to reduce vulnerability to environmental variability, helping ensure the long term sustainability of aquaculture in Marlborough. • The Onapua Bay application allows for best practice single year class farming for the high value flat oyster which is a critical response to climate change.
Objective 7.2 – Preserve and promote the restoration of the natural character of the coastal environment, and lakes and rivers and their margins, and protect them from inappropriate subdivision, use and development.	Policies 7.1.1, 7.2.1, 7.2.2, 7.2.3, 7.2.4, 7.2.5, 7.2.6 and 7.2.8	• These policies seek to preserve and restore the natural character of the coastal environment and of lakes and rivers and their margins, and to protect them from inappropriate subdivision, use and development. • Adverse effects on the characteristics that contribute to areas of outstanding natural character are to be avoided, and significant adverse effects elsewhere in the coastal environment are to be avoided, with other adverse effects avoided, remedied or mitigated. • Where consent is required, assessment is to have regard to the location, scale, design and operation of the activity, existing and lawfully established use, the elements, patterns, processes and experiential attributes that contribute to natural character, the	• The Papatua site is within an HNC and partially within an ONC, the Okuri Bay site is within a VHNC and the Onapua Bay site within an HNC. • While there will be effects on natural character it is isolated to the particular part of the bay within which each of the applications is located. Even if the application is contrary to policy, this needs to be considered in light of the statutory purpose of the Fast-Track legislation. • The applicants will be farming indigenous species, including Greenshell mussels, flat oysters and a range of seaweed species in their natural habitat, with no feed or additives. In that sense, shellfish and seaweed farming is ‘close to nature.’ Shellfish and seaweed farming is known to enhance the biotic

		interconnection of land, freshwater and the coastal marine area, and any functional or operational to be located in the coastal marine area. • The policies recognise that activities in already modified areas are less likely to result in adverse effects. • They direct how cumulative effects are to be assessed • They require regard to the potential to restore natural character, and encourage restoration efforts by iwi, landowners, community groups and businesses.	aspects of natural character. • The applications are appropriately sited and laid out and have a functional and operational need to be located in the coastal marine area. • The expert assessments find that cumulative effects on natural character will be no more than minor. • The applicants have committed to activities that restore the coastal environment, including (for Papatua, Guards Bay, Hāpuku Rock and Okuri Bay) contribution of \$10,000 each to the MFA Environment and Community Fund and for Onapua Bay 80 hours per year to remove wilding pines at Katoa Point Reserve.
Objective 8.2 – Protect outstanding natural features and landscapes from inappropriate subdivision, use and development and maintain and enhance landscapes with high amenity value.	Policies 8.2.4, 8.2.5, 8.2.6, 8.2.7, 8.2.8, 8.2.10, 8.2.11, 8.2.12, 8.2.13 and 8.2.14	• These policies seek to protect outstanding natural features and outstanding natural landscapes (ONFL) and to maintain and enhance landscapes with high amenity value. • Adverse effects on the values that contribute to ONFL and significant adverse effects on identified high amenity landscapes such as the Marlborough Sounds are to be avoided. • Initiatives that control wilding pines are supported. • Liaison with DOC is required with regard to effects on land administered by DOC. • Assessments are to have regard to the location, scale, design and operation of activities, structure effects on skylines and the foreshore, reflectivity and materials and cumulative effects. • Consideration is to be given to the perceptual relationship to the land for activities in the Cook Strait	• The Papatua, Guards Bay and Hāpuku Rock sites sit within ONLs. • The expert assessments find that the values of the ONLs include modification including from forestry and farming and in some cases, values have been diminished by erosion. Nonetheless the proposed farms may be contrary to the landscape and natural character policy. • Visual effects will be contained due to the low lying nature and recessive colour of the surface structures (typically black buoys, with the exception of orange floats required for maritime safety purposes). • The structures will be visible in close proximity and visibility will reduce with distance from the farm. • The applications are appropriately sited and constitute appropriate development. • Apex has committed to 80 hours per year to remove

		landscape.	wilding pines at Katoa Point Reserve. • The applicants have engaged with DOC.
Objective 9.1 – Marlborough’s remaining significant indigenous biodiversity in terrestrial, freshwater (including wetlands) and marine environments are protected and other indigenous biodiversity is maintained and enhanced.	Policies 9.3.1, 9.3.2, 9.3.5, 9.3.6, 9.3.7, 9.3.9 and 9.3.11	• These policies seek to protect significant indigenous biodiversity and maintain or enhance other biodiversity. • In the coastal environment, adverse effects are to be avoided where areas, habitats or ecosystems fall within NZCPS Policy 11(a), significant wetlands or Category A and B ESMS, with buffers to protect those sites including for king shag breeding sites. • Significant adverse effects are to be avoided (and other effects avoided, remedied or mitigated) for Policy 11(b) values. • The policies direct avoidance of dredging, bottom trawling, deposition of dredged material, reclamation and (for Category A sites) anchoring within ecologically significant marine sites. • They set out applicable offsetting and compensation principles. • They enable customary harvest in accordance with tikanga.	• The sites are located away from any ESMS or reefs and biogenic seabed habitat. Where reefs and biogenic habitat occur in the vicinity the expert ecological assessments find that the effects of the farming activities will be no more than minor. A small structures exclusion area is proposed for the Onapua Bay farm as a precautionary measure. • Mussel farms are known to have neutral and, in some cases, positive effects for king shag, particularly as the industry avoids vessel traffic in the vicinity of colonies. • There may be up to a medium effect on dusky dolphin habitat from the Hāpuku Rock proposal, but this species is Not Threatened and an Admiralty Bay dusky dolphin research programme is proposed. • There is no evidence that the proposals will create adverse effects on significant indigenous biodiversity or significant adverse effects on other biodiversity.
Objective 14.1 – Areas of the coastal environment where the adverse effects from particular activities and/or forms of subdivision, use or development are to be avoided are clearly identified.	Policies 14.1.1 (and 9.3.1)	• This policy directs that adverse effects be avoided on outstanding natural character, outstanding natural features and landscapes, and on the significant marine areas, habitats or ecosystems identified in Policy 9.3.1(a) and (b), and that significant adverse effects be avoided on marine biodiversity or cultural values, significant wetlands, and sites and places of significance to Marlborough’s tangata whenua iwi.	• The expert assessments confirm that the proposals will not cause adverse effects on Policy 11(a) species. This application as a whole may be contrary to the natural character and landscape policy. • The expert assessments confirm that the proposals will not cause significant adverse effects on marine biodiversity. • During engagement with pou taiao cumulative ecological and cultural effects were raised as the key

			concern noting that cultural values are intrinsically linked to ecological health however the EclA supports the applicants' initial assessment that effects on these values will be no more than minor.
Objective 14.2 – Subdivision, use or development activities take place in appropriate locations and forms and within appropriate limits.	Policies 4.2.1, 14.2.1, 14.2.2, 14.2.3, 14.2.4, 14.2.5 and 14.2.6	• These policies seek to ensure coastal subdivision, use and development occurs in appropriate locations, forms and limits. • They identify the values to be recognised and provided for, namely natural character and landscape, tangata whenua relationships, public open space and access, coastal ecosystems, water quality and amenity. • They direct how coastal amenity values are to be assessed, maintained and enhanced. • They set out the further matters decision makers must weigh in determining whether an activity is appropriate. These include social and economic wellbeing, efficient use of resources, effects on established coastal dependent activities, coastal hazard risk, cumulative or sprawling patterns of development, the functional need for a coastal location, and precaution where effects are uncertain but potentially significant. • They require no more than a three year lapse period for marine farming and a general limitation on consent term of 20 years.	• While the application sites are located outside AMAs, therefore comprise a prohibited activity in the MEP they generally align with the policies that guide identification of appropriate locations for aquaculture. Policies 14.21.5 and 14.21.6 are particularly relevant in this regard and a full assessment of each application against these policies is set out above. • The area of conflict is in respect of landscape and natural character. • The proposals will provide significant economic benefits and contribute to the social wellbeing of Marlborough communities. • Importantly, the increase in supply and resilience of spat, the increase in diversity of production sites and the ability to undertake biosecurity single year class farming of flat oysters will contribute to a significant increase in productivity of the existing industry, thereby supporting the continued use of existing infrastructure and increasing year round secure and interesting jobs. • The applications have a functional and operational need to be located in the coastal environment. • The effects of marine farming are well known, supported by decades of research. Precaution is not indicated in this respect.

			• The applicants seek 35 year consent terms in recognition of the significant resource required to make an FTAA application and the long term need for certainty to enable investment. • A 3 year lapse period is appropriate except for Richmond where a 5 year lapse period is sought.
Objective 14.3 – Recreation continues to make a significant contribution to people’s health and wellbeing and to Marlborough’s tourism industry, whilst avoiding adverse effects on the environment.	Policies 14.3.2 and 14.3.4	• These policies seek to maintain and enhance opportunities for recreational use of the coastal environment and to protect the contribution recreation makes to wellbeing and tourism. • The policies give coastal recreation priority over commercial activities requiring occupation of the coastal marine area in Queen Charlotte Sound / Tōtaranui (excluding East Bay) and retain recreation as the dominant use over such commercial activities in East Bay and Tory Channel / Kura Te Au.	• Effects on fishing are not anticipated. • Effects on fisheries resources will be no more than minor and, in some respects, positive. Shellfish and seaweed farms are known to provide habitat for fish. • It is for iwi to determine effects on customary fishing however the EclA supports the applicants' initial assessment that effects on customary fishing will be no more than minor. • Navigation through and around the farms for recreational vessels will be enabled. The proposed farm blocks are sited in a manner that allows for navigation to and along the shore. • Public access to and around the sites will still be enabled. • The Onapua proposal (a side bay of Kura Te Au) will have no more than minor effects on coastal recreation, especially in the context of recreation in the wider channel.
Objective 14.20 – Equitable and sustainable allocation of public space within Marlborough’s coastal marine area.	Policies 14.20.1, 14.20.2, 14.20.3, 14.20.5, 14.20.7	• These policies seek the equitable and sustainable allocation of public coastal space. They recognise there is no inherent right to use, develop or occupy the coastal marine area; applies a ‘first in, first served’ default allocation mechanism with the option of an alternative regime where competing demand arises;	• The Marlborough mussel industry is not able to meet its productive potential due to a shortage of mussel nursery space. The applications will therefore benefit the industry as a whole and thereby bring broader economic and social benefits to the people and communities of Marlborough.

	and 14.20.8	and direct that any exclusive occupation be minimised to that reasonably necessary, having regard to the public interest. • The policies also set the basis for coastal occupancy charges (including for marine farms) and direct that revenue be applied to sustainable management activities such as coastal monitoring, research, biosecurity, restoration and public access.	• The applications will also provide more productive growing space which will enhance this effect. • The Onapua Bay proposal will enable development of a high value flat oyster industry which will increase the diversity and value of the industry overall. • The Papatua site will be operated in a manner which will ensure spat nursery space is available to all industry members. • The Richmond Bay application provides an opportunity for Iwi to increase their involvement in the industry in alignment with their broader aspirations.
Objective 14.21 – Provide for marine farming in appropriate locations while protecting and maintaining the values of Marlborough’s coastal environment.	Policies 9.1.1, 9.3.1, 14.17.3, 14.17.6, 14.21.1, 14.21.2, 14.21.3, 14.21.4, 14.21.5, 14.21.6, 14.21.7, 14.21.8, 14.21.9, 14.21.10, 14.21.11, 14.21.12, 14.21.13	• These policies comprise the core marine farming framework. They divide the coastal marine area into coastal management units (CMUs), then seek to provide for marine farming in appropriate locations specifically Aquaculture Management Areas (AMAs), Aquaculture Settlement Areas (ASAs), and potentially the offshore CMU while protecting the values of the coastal environment. • They set out the criteria for identifying existing and new AMAs in policies 14.21.5, 14.21.6 and 14.21.7. A full analysis of the proposals against those policies is included above. • They recognise the Crown’s Māori commercial aquaculture settlement obligations and Ngāi Tahu’s enduring relationship with Te Tai o Marokura. • They set an allocation methodology for existing and relocating farms, provide for marine farming in AMAs and ASAs as a controlled activity, and direct avoidance	• The joint proposal constitutes sustainable use of Marlborough's resources as it enables much needed resilience, diversification and productivity for the aquaculture industry in Marlborough. Each of the applications will provide regionally significant benefits and the package as a whole is nationally significant. • Each of the sites has been assessed against policies 14.21.5, 14.21.6 and 14.21.7 at Table G5 above and found to be generally in keeping with those policies • The expert assessments confirm that the proposed locations are appropriate for aquaculture with the possible exception of the applications for natural character and for landscape. • If the consents are granted a new Crown aquaculture settlement obligation will be created which will further support Te Taihu iwi aspirations in aquaculture.

	and 14.21.14	of farming in inappropriate areas (generally outside AMAs or ASAs) through prohibited activity status. • They provide for structure exclusion areas to protect benthic habitat.	• Under the MEP the activities comprise prohibited activities, but the FTAA still allows for consents to be granted. • One small structures exclusion area is proposed as a precautionary measure over an area of reef in the middle block at Onapua Bay.
Objective 14.22 – To understand and address any actual or potential cumulative effects of marine farming in the enclosed waters of the Marlborough Sounds.	Policies 14.22.1 and 14.22.2	• These policies seek to understand and address the actual or potential cumulative effects of marine farming in the enclosed waters of the Marlborough Sounds. • They establish a state of the environment programme to monitor and assess cumulative water column effects, and a cultural monitoring programme developed in partnership with Marlborough’s tangata whenua iwi to identify and assess the cumulative effects of marine farming on the relationship of tangata whenua iwi with the moana, sites of significance and their cultural values.	• The expert ecological assessment has considered cumulative effects and found them to be no more than minor. • This application may conflict with the policies in respect of natural character and landscape. • The marine farming industry supports state of the environment monitoring to understand the multitude of stressors on the marine environment. • The applicants have proposed as a placeholder Mauri Management Framework as condition of consent. The applicants have been in discussions with iwi as to the appropriate form of the condition. Those discussions are ongoing.
Objective 14.23 – Marine farms are operated sustainably, kept in good order, and adverse effects of the farm operations are avoided, remedied or mitigated.	Policies 14.23.1, 14.23.2, 14.23.3, 14.23.4 and 14.23.5	• These policies seek to ensure marine farms are operated sustainably, kept in good order, and that the adverse effects of farm operations are avoided, remedied or mitigated. • The policies require the removal of structures on expiry, surrender or prolonged disuse of a farm (subject to a limited exception for anchoring structures that cannot practicably be removed. • They direct consent holders to take the best practicable options to avoid the loss of non-biodegradable debris and litter and to regularly	• The applicants will follow industry best practice such as through A+ the MFA ECP. • The proposed conditions require operation in accordance with a Biosecurity Management Plan and a Marine Mammal Management Plan. • The proposed conditions include requirements to manage debris, regularly clean adjacent beaches and avoid vessels transiting in the vicinity of king shag colonies. • The proposed conditions include management of the layout and positioning of the farms including allowing

		monitor, collect and appropriately dispose of it. • They control the layout, positioning, design, colour and reflectivity, buoyage, anchoring, lighting, noise and biosecurity of farms and associated structures, including maintaining gaps for public access. • They also enable changes to the layout of structures, and the change or addition of farmed species, within defined limits.	for public access and safe navigation including Aids to Navigation.
Objective 16.1a – Maintain and, where necessary, enhance water quality in Marlborough’s rivers, lakes, wetlands, aquifers and coastal waters, so that: (a) the mauri of wai is protected; (b) water quality at beaches and in rivers is suitable for contact recreation (primary and secondary); (c) people can use the coast, rivers, lakes and wetlands for food gathering, cultural, commercial and other purposes; (d) groundwater quality is suitable for drinking; (e) the quality of surface water utilised for community drinking water supply remains suitable for drinking after existing treatment; and (f) coastal waters, rivers, lakes and wetlands support healthy ecosystems.	Policies 16.1.1, 16.1.8 and 16.1.10	• These policies seek to maintain and, where necessary, enhance water quality so that mauri is protected and waters remain suitable for ecosystem health, contact recreation, food gathering, cultural, commercial and drinking water purposes. • As a minimum, coastal waters are to be managed to protect marine ecosystems and provide for contact recreation, food gathering, marine farming and cultural and aesthetic values. • Point source discharges are enabled only where specified adverse effects are avoided beyond the zone of reasonable mixing, and discharge permit assessments must have regard to effects on the spiritual and cultural values of tangata whenua iwi, the degree of treatment, the temporary or maintenance nature of a discharge, and cumulative effects on ecosystem health.	• The expert ecological assessment finds that the effects on water quality will be no more than minor. • Aquaculture requires high coastal water quality to operate • The growing of mussels and oysters does not compromise coastal water quality. • Shellfish and seaweed farming can enhance water quality.

6.0 Iwi Management Plans

The applicants' planning consultant has undertaken initial assessments against the available Iwi Management Plans.

The applicants have engaged a cultural engagement facilitator who has undertaken Phase 1 of an Iwi engagement plan and set out a programme for Phase 2 to be carried out ahead of lodging a substantive application. Phase 2 will provide an opportunity for each individual Iwi to make their own assessment where relevant.

6.1 Ngāti Koata Trust Iwi Management Plan

The Ngāti Koata Trust Iwi Management Plan²⁸² (2002) sets out a vision *‘to ensure that the environment and human activities area culturally managed in harmony with the appreciation that the natural world is dynamic, fragile and finite’*.

The IMP includes anticipated environmental results such as *‘maintenance and enhancement of the mauri of the coastal environment, preservation of kaimoana, and the continuation of activities that do not adversely alter the environment’*. Section 8 ‘Coastal Water’ is relevant to this proposal, and the following is an assessment from the applicants' perspective of its context in terms of the objectives and policies in Section 8.

Objectives	Policies	Assessment
Maintenance or enhancement of water quality in the coastal marine area at a level that enables the gathering or cultivating of shellfish for human consumption.	Ngāti Koata involvement in the management and planning of coastal water quality.	Mussel, oyster and seaweed farms have less than minor effects on coastal water quality and have been known to mitigate sedimentation from terrestrial sources.
	Ngāti Koata favour open water marine farms rather than coastal ribbon development. This is because the greatest area for recreational fishing occurs nearest the coastline in the Marlborough Sounds.	Papatua, Hāpuku Rock and Okuri Bay allow between 100-200m of sea room inshore of the farm. The remaining farms are closer. Nonetheless because the farms are located above muddy habitat the applicants believe the locations are less likely to be fished and may provide greater fishing opportunity for certain species in certain locations.
Protection of the coastal environment by avoiding, remedying or mitigating any significant adverse effects of activities that alter or modify the foreshore or seabed.	Avoid, remedy or mitigate the adverse effects of use and development of resources in the coastal area on cultural and Iwi values.	The project EclA finds that the effects on ecological values will be no more than minor. During engagement with pou taiao cumulative ecological and cultural effects were raised as the key concern noting that cultural values are intrinsically linked to ecological health. The applicants anticipate ongoing engagement with Ngāti Koata on these applications and resulting activities.
	Avoid, remedy or mitigate any adverse effects resulting from the	The Papatua site is within an ONL and HNC and partially within an ONC. The Guards Bay site is within an ONL. The Okuri Bay site is within VHNC. The Hāpuku Rock site is in an ONL and the Onapua

²⁸²Ngāti Kōata Trust, [Ngāti Kōata Trust Iwi Management Plan 2002](#) (June 2002).

	occupation of structures and activities in the coastal marine area. Recognise and provide for the need to: Preserve the natural character of the coastal environment. Protect the amenities of the area. Avoid, remedy or mitigate adverse effects on ecological systems including natural movement and productivity of biota and natural biodiversity including adverse effects on fish spawning and nursery areas, bird breeding and nursery areas, habitats important to the continued survival of all indigenous species, wildlife and marine biota, the intrinsic value of ecosystems. Avoid remedy or mitigate any adverse effects to the foreshore and seabed arising from marine farming activity.	Bay site within an HNC. There will be adverse visual effects on the values of those mapped areas. However, those effects will be contained due to the low lying nature and recessive colour of the surface structures (typically black buoys, with the exception of orange floats required for maritime safety purposes). The structures will be visible in close proximity and visibility will reduce with distance from the farm. The land at each site is characterised by a primary production character including pastoral farmland and forestry and in some cases, values have been diminished by erosion. The applicants will be farming indigenous Greenshell mussels, in their natural habitat, with no feed or additives. In that sense, mussel farming is 'close to nature.' The Onapua Bay site has the potential to farm a range of seaweed species which are known to enhance the biotic aspects of natural character. The sites are located well away from any ESMS or biogenic seabed habitat. Mussel farms are known to have neutral and, in some cases, positive effects for king shag, particularly as the industry avoids vessel traffic in the vicinity of colonies. Mussel farms have been coexisting with marine mammals since the industry's inception. There may be up to a medium effect on dusky dolphin habitat from the Hāpuku Rock proposal, but this species is Not Threatened. There is no evidence that the proposals will create adverse effects on significant indigenous biodiversity or significant adverse effects on other biodiversity. Shellfish and seaweed farms provide ecosystem services including habitat creation. The applicants follow the industry best practices relating to marine mammals and seabirds including those set out in the A+ Sustainable Management Framework.
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Table G7 Assessment against Ngāti Koata Trust Iwi Management Plan

6.2 Ngāti Rarua Environmental Strategy

The Ngāti Rarua Environmental Strategy - Popoia Te Ao Tūroa²⁸³ (2021) is *‘first and foremost a tool to assist Ngāti Rarua to effectively and authentically engage in environmental management’*.

Section 11 ‘Tangaroa’ notes that *‘Ngāti Rarua consider that the coast and marine areas are fully integrated with land, air, river and freshwater ecosystems. For this reason, the ‘coast and marine area’ is not tightly defined in this strategy. The policies in this section encompass both the coastal marine area (CMA) as defined in the Resource Management Act¹⁰, as well as the beaches, dunes, estuaries, islands, coastal flora and fauna and other elements that interact immediately with the CMA’*. The following is an assessment from the applicant’s perspective of the proposal in the context of the objectives and policies in Section 16.0.

Objective	Policies and methods	Assessment
The mauri of Tangaroa is protected, enhanced and restored.	Require the relationship that Ngāti Rarua have with the coast and marine area to be acknowledged, recognised and provided for in management of the coast and marine area.	The applicants acknowledge that Ngāti Rarua have a special relationship with the CMA.
	Actively seek to protect, enhance and restore the mauri of the coastal and marine area.	The applicants will be farming indigenous Greenshell mussels, in their natural habitat, with no feed or additives. In that sense, mussel farming is ‘close to nature.’ The Onapua Bay site has the potential to farm a range of seaweed species which are known to enhance the biotic aspects of natural character. The sites are located well away from any ESMS or biogenic seabed habitat. Mussel farms are known to have neutral and, in some cases, positive effects for king shag, particularly as the industry avoids vessel traffic in the vicinity of colonies. Mussel farms have been coexisting with marine mammals since the industry’s inception. There may be up to a medium effect on dusky dolphin habitat from the Hāpuku Rock proposal, but this species is Not Threatened. There is no evidence that the proposals will create adverse effects on significant indigenous biodiversity or significant adverse effects on other biodiversity. Shellfish and seaweed farms provide ecosystem services including habitat creation. The applicants follow the industry best practices relating to marine mammals and seabirds including those set out in the

²⁸³Ngāti Rārua, [Ngāti Rārua Environmental Plan 2021](#) (Ngāti Rārua, 2021).

		A+ Sustainable Management Framework.
	Require a precautionary approach towards proposed activities where effects on the coastal and marine environment are uncertain, unknown or poorly understood.	Aquaculture is perhaps the most studied and well understood activity occurring in the coastal marine area. Aquaculture is consistent with sustainable management: what effects exist are reversible upon removal of farms. The proposal does not justify a precautionary approach.
	Assess activities and resource use in the coastal and marine area taking into account effects on: Marine and coastal biodiversity, Coastal water quality, Mahinga kai, Nga wahi taonga tuku iho, Ngāti Rarua access to coastal areas for customary activities, Natural character and landscapes, Effects on customary fishery resources, Monitoring provisions, Cumulative and long term effects	The effects assessments find that the farms will be appropriately sited and managed with respect to marine and coastal biodiversity, coastal water quality, and natural character and landscapes. Shellfish and seaweed farms can act as habitat for fish which has the potential to enhance the availability of mahinga kai. Access around and within the farms is still enabled. Some monitoring of dusky dolphins may be undertaken as part of the proposed Hāpuku Rock marine mammal management plan. Cumulative and long term effects are not anticipated.

Table G8 Assessment against Ngāti Rarua Environmental Strategy

6.3 Ngāti Tama Environmental Management Plan

The Ngāti Tama ki Te Waipounamu Trust Environmental Management Plan²⁸⁴ (2018) serves as a ‘*guide for councils, government agencies and natural resource users to understand issues of significance to Ngāti Tama, and how those issues can be resolved in a manner consistent with cultural values and interests.*’

Part 15.0 ‘Coastal Marine Environment’ notes that ‘*the association of Ngāti Tama ki Te Taihu with the coastal marine area is an integral part of their rohe in Te Taihu*’. The following is an assessment from the applicant’s perspective of the proposal in the context of the relevant coastal marine aspirations expressed in Part 15.0.

Section	Aspiration	Assessment
15.3 Coastal Water Quality	The interconnected nature of water environments is recognised in the management of catchments. Ngāti Tama customary marine title and protected customary rights granted as provided for or in the Marine and Coastal Area (Takutai Moana) Act 2011; Water bodies are managed with particular regard to protecting the mauri of wai, and protecting Ngāti Tama cultural and spiritual values (present and future); Water is protected from being used as a medium for	Shellfish and seaweed farming can have positive effects on coastal water quality.

²⁸⁴Ngāti Tama, [Ngāti Tama Environmental Management Plan 2018](#) (Ngāti Tama, 2018).

	transporting and treating waste; and Wastewater is treated to the highest standard possible before being discharged to land.	
15.5 Structures in the Coastal Marine Area	The significance of the coastal marine environment to Ngāti Tama is recognised and cultural heritage sites are protected The foreshore and seabed, coastal waters, mahinga kai and kaimoana are protected from developments which are incompatible with Ngāti Tama cultural values; and Structures within the coastal environment are of sound construction and compatible with the natural character of the area.	The project EclA finds that the effects on ecological values will be no more than minor. During engagement with pou taiao cumulative ecological and cultural effects were raised as the key concern noting that cultural values are intrinsically linked to ecological health. The applicants anticipate ongoing engagement with Ngāti Tama on these applications and resulting activities. Shellfish and seaweed farming can have positive effects on coastal ecosystems. The farms will be operated in accordance with industry best practice to ensure the structures are of sound construction including the MFA ECP.
15.8 Commercial Surface Water Activities	Ngāti Tama whānau are able to access healthy kai moana from coastal marine environments Culturally sensitive coastal marine environments are protected from the adverse effects of commercial surface water activities (for example, traditional resource gathering areas such as Westhaven Inlet).	Shellfish and seaweed farming, when appropriately located, can have positive effects on coastal habitats. The farm operators will follow all industry best practices, including with regard to noise, discharges, and biosecurity including registration with the MFA ECP and the A+ Sustainable Management Framework.
15.10 Marine and Coastal Birds	Ngāti Tama cultural associations with marine and coastal birds are protected marine and coastal bird nesting and feeding areas are protected from developments in marine coastal areas.	Marlborough's aquaculture industry has been at the forefront of a programme to understand the behaviour of the taonga species kawau pateketeke in the Marlborough Sounds and the most recent research shows that some birds prefer to rest and feed within mussel farms and that overall mussel farms have a neutral effect. The farm operators follow the industry best practices relating to seabirds including avoiding transiting close to roosting colonies.
15.11 Marine Mammals	Ngāti Tama has a tikanga responsibility to preserve protect and dispose of marine mammals to ensure cultural protocols are observed in the interaction and handling of marine mammals. A protocol has been developed to assist Ngāti Tama and DOC to cooperate in managing strandings in the rohe. Under this	The farms are not anticipated to create adverse interactions with marine mammals. The farm operators follow industry best practices in relation to marine mammals set out in the A+ programme as well as in accordance with DOC guidance ²⁸⁵ .

²⁸⁵ Department of Conservation, [Sharing Our Coasts with Marine Mammals](#) (DOC, last accessed 16 July 2026).

	protocol, Ngāti Tama and the DOC accept responsibility for working together to ensure that the entire stranding management process meets all public health and safety standards and quality conservation management guidelines.	
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Table G9 Assessment against Ngāti Tama Environmental Management Plan

6.4 Te Ātiawa Iwi Environmental Management Plan

The Te Ātiawa Iwi Environmental Management Plan *‘is about managing the rohe of Te Ātiawa in Marlborough’* but *‘embraces Te Ātiawa tikanga and aspirations in both Marlborough and the greater Tasman areas’*.

Section 7.8 Sustainable management of the Moana has a headline objective that *‘the mauri of the coastal / marine resources will be sustained in perpetuity, and traditional Te Ātiawa practices and Iwi aspirations will be realised’*. The following is an assessment from the applicant’s perspective of the proposal in the context of the relevant objectives in Section 7.8.

Objective	Assessment
Objective 1 The quality of coastal/ marine water throughout the rohe will be a priority outcome for all managers.	Shellfish and seaweed farms have less than minor effects on coastal water quality and have been known to mitigate sedimentation from land based stressors.
Objective 2 The integrity of the coastal / marine habitat, inclusive of saltwater wetlands and the coastal riparian habitat, which forms the coastal/ marine ecosystem throughout the rohe, will be a priority outcome for the community and all the managers of the rohe.	The available evidence supports the finding that the applications will have a no more than minor effect on the integrity of coastal habitat. The farm operators will follow all industry best practices, including with regard to noise, discharges, and biosecurity including registration with the MFA ECP and the A+ Sustainable Management Framework.
Objective 3 Te Ātiawa Iwi will be able to freely participate in both traditional and contemporary cultural practices, in engaging the coastal marine resources of the rohe.	Shellfish and seaweed farms can act as habitat for fish which has the potential to enhance the availability of mahinga kai. Access around and within the farms is still enabled.

Table G9 Assessment against Te Ātiawa Iwi Environmental Management Plan

Te Ātiawa identify marine farming as a threat to sustaining mauri for the following reasons:

- Changes to water quality, affecting the mauri of the water body;
- Modification of hydrological conditions, flow changes, sedimentation;
- Modification of the benthic habitat through the accumulation of marine farm associated material such as faeces, shell litter and uneaten food; and
- Changes in marine biodiversity as a result of marine farming.

The available evidence supports the finding that the proposed farms will have a no more than minor effect on marine and coastal biodiversity and coastal water quality. Shellfish and seaweed farms can act as habitat for fish which has the potential to enhance the availability of mahinga kai.

6.5 Te Aro Pipi Taiao Strategy and Iwi Taiao Management Plan, July 2025 – Te Rūnanga a Rangitāne o Wairau Trust

Te Aro Pipi²⁸⁶ sets out an overarching vision; *'He waka uruuru moana, He waka uruuru whenua, He waka uruuru kapua'*. Rangitāne are *'committed to ensuring that our cultural practices and connection to the Wairau are preserved and enhanced through sustainable and collaborative efforts'*

Section 4.5 Wai Māori me te Wai Tai Fresh and Coastal Water recognises that *'the wellbeing of the waterways is intrinsically linked to our wellbeing. When wai suffers, so do we.'* Section 4.6 Whenua me te Kanorau Koiora | The Land and Biodiversity sets out a customary duty to protect and nurture the whenua and its resources. Section 4.7 Te Huringa Āhuarangi me ngā Matepā ā-Taiao | Climate Change and Natural Hazards recognise that climate change and natural hazards can affect the wellbeing of te taiao and lead to loss of productivity. Section 4.8 Ahumahi, Whanaketanga me ngā Pūnaha Hanga | Industry, Development and Infrastructure recognises that *'industries and development provide valuable learning, employment, housing, and economic opportunities for our people. However, it is important to recognise that these opportunities come with unique challenges and impacts on te taiao'*.

The following is an assessment from the applicant's perspective of the proposal in the context of the relevant objectives in Te Aro Pipi.

Objective	Assessment
Section 4.5 Objective 7: Fresh and coastal water quality and mauri is protected, maintained and enhanced.	Shellfish and seaweed farms have less than minor effects on coastal water quality and have been known to mitigate sedimentation from land based stressors.
Section 4.6 Objective 10: Native biodiversity is protected, enhanced and restored to ensure ecosystem health.	The technical assessments find that the proposals will have no more than minor effects on indigenous biodiversity and shellfish and seaweed farms can contribute positive ecosystem benefits.
Section 4.7 Objective 12: A community that is resilient to natural hazards and the impacts of climate change	These proposals are the industry's response to loss of productivity and resilience brought by climate change.
Section 4.8 Objective 13: Industries operate sustainably, maintaining and enhancing the health of te taiao for future generations and ensuring the prosperity of our people.	- The available evidence supports the finding that the applications will have a minor effect on the health of te taiao. - Rangitāne identify aquaculture as a threat to sustaining the moana due to 'the presence of micro plastics, diesel pollution, waste products and discharges and the occupation of coastal areas'. - Through the set of conditions volunteered as part of this application the risks of sustained adverse effects are reduced as much as practicable. - The application has benefits to Rangitāne and the Taiao through the various documented measures.

Table G10 Assessment against Te Rūnanga a Rangitāne o Wairau Trust Te Aro Pipi Taiao Strategy and Iwi Taiao Management Plan

²⁸⁶ https://images.rangitane.org.nz/Taiao_Strategy_2025_screen_file_e67892bf0f.pdf

Schedule H

Referral Decision

The referral decision is uploaded with the application as Schedule H.

Schedule I

Reference Documents

The following reference documents are uploaded with the application.

Topic	File Name	Author	Ref
Recreation Effects	Papatua Recreation Report 2011	TRC	I1
	Recreation and Tourism Evidence 2021	Greenaway	I2
Water Column Effects	Mussel Farm Plankton Report 2020	Cawthron	I3
Fisheries Resources Effects	Fish in Mussel and Seaweed Farms Report 2023	UoA	I4
Onapua Bay	Onapua Bay Operations Report 2026	Apex	I5
Guards Bay	Report on Guards Bay Archaeological Site P26_142	NZAA	I6

Schedule J

Section 30 Notice

The Section 30 notice is uploaded with the application as Schedule J.

Schedule K

Nearest Landowners and Other Legal Interests

A schedule of the nearest landowners and other legal interests is uploaded with the application as Schedule K.

Schedule L

Guards Bay Hectare Change

An explanation of the change in hectares for Guards Bay is uploaded as Schedule L.