
PROPOSED

MARLBOROUGH ENVIRONMENT PLAN

AQUACULTURE VARIATIONS

Variation 1A - Guidance Document



The Proposed Marlborough Environment Plan and Variations 1 and 1A.

What is the Proposed Marlborough Environment Plan?

The Proposed Marlborough Environment Plan is the new resource management document for the Marlborough district. It is a combined regional policy statement, regional coastal plan, regional plan and district plan that was publicly notified in June 2016. Submissions have already been received on the Plan, hearing of submissions has taken place and a decision was publicly notified in February 2020. The decisions are now subject to appeal. The Plan will eventually replace the current Marlborough Regional Policy Statement, Marlborough Sounds Resource Management Plan, and the Wairau/Awatere Resource Management Plan.

Why variations to the Proposed Marlborough Environment Plan?

The aquaculture provisions were removed from the Proposed Marlborough Environment Plan before it was publicly notified in 2016, so that the provisions could be further reviewed. The Council did not consider that the draft provisions gave full effect to Policy 8 of the New Zealand Coastal Policy Statement. The review has now been completed and the variations are a result of the review process.

Variation 1 and 1A each have their own guidance document.

Proposed Variation 1: Marine Farming

This is the main variation. It adds provisions to the Proposed Marlborough Environment Plan that contains objectives, policies and rules about how marine farming activities will be sustainably managed in the Marlborough district. Variation 1 mainly addresses longline farming like mussels, oysters, and seaweed. It also divides the sounds into small Coastal Management Units and Aquaculture Management Areas to make things easier to talk about.

Proposed Variation 1A: Finfish Farming

This variation specifically addresses finfish farming in the district. Finfish farms would be managed by the objectives, policies and rules in the proposed aquaculture provisions.

We recommend reading the Proposed Variation 1 guidance document alongside Proposed Variation 1A. Variation 1A relies on certain provisions in Variation 1, and builds upon the core aquaculture framework.

Proposed Variation 1A would create 10 new Finfish Aquaculture Management Areas

We propose making 10 new Finfish Aquaculture Management Areas.

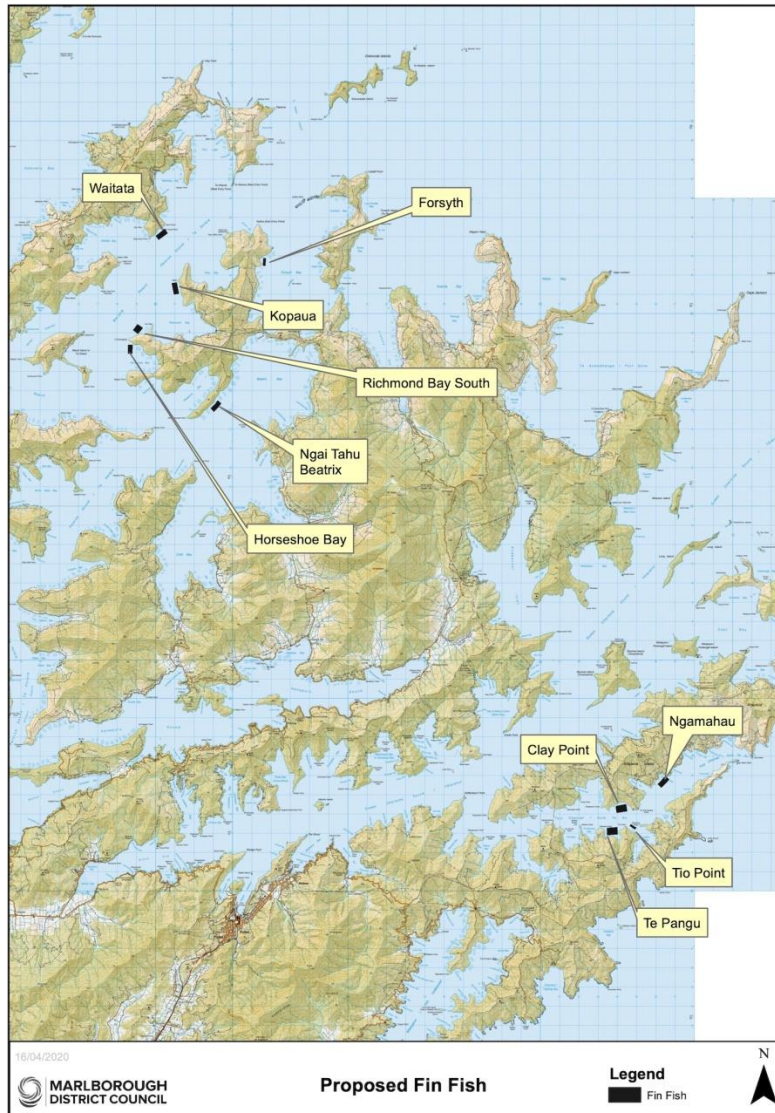


Figure 1: Proposed Finfish Aquaculture Management Areas

A Finfish Aquaculture Management Area (FAMA) is an area where finfish farming is considered appropriate in the district. Our goal is to develop meaningful parcels of water that can be easily located on a map, and have policies and rules applied directly to them. Some Finfish Aquaculture Management Areas cover existing finfish farms. Other Finfish Aquaculture Management Areas are in places that would be appropriate for finfish farms, but there aren't any farms there yet. Once Finfish Aquaculture Management Area locations are agreed upon, we can then choose to allow finfish farms to operate in them.

In the Coastal Marine Zone of the Proposed Marlborough Environment Plan, marine farms are a prohibited activity unless they are located in an Aquaculture Management Area. Finfish Aquaculture Management Areas are Aquaculture Management Areas specifically for finfish farms.

Where the Finfish Aquaculture Management Areas would be located

We've proposed 10 Finfish Aquaculture Management Areas that would accommodate most existing finfish farms. Seven of the 10 Finfish Aquaculture Management Areas are located in Coastal Management Units (CMUs) where finfish farms are already established (Figs 2-5):

Finfish Aquaculture Management Area	Location
Forsyth Bay	Forsyth Bay CMU
Waitata Reach	Waitata Reach CMU
Kopaua	Waitata Reach CMU
Ngamahau Bay	Tory Channel CMU
Beatrix Bay	Beatrix Bay CMU
Clay Point	Tory Channel CMU
Te Pangu Bay	Tory Channel CMU



Figure 2: Location of proposed Forsyth Bay FAMA



Figure 3: Location of proposed Te Pangu (red), Clay Point (grey) and Ngamahau Bay (black) FAMAs



Figure 4: Location of proposed Waitata Reach (lavender) and Kopaua (mint) FAMAs



Figure 5: Location of proposed Beatrix Bay (light pink) FAMA

Three of the 10 Finfish Aquaculture Management Areas will contain relocated finfish farms, moved from their existing sites to the following Coastal Management Units (Fig 6 and 7):

Finfish Aquaculture Management Area	Location
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Tio Point	Oyster Bay, Tory Channel CMU
Richmond Bay South	Waitata Reach CMU
Horseshoe Bay	Maud Island CMU



Figure 6: Location of proposed Richmond Bay South (orange) and Horseshoe Bay (pink) FAMAs



Figure 7: Location of proposed Richmond Bay South (orange) and Horseshoe Bay (pink) FAMAs

How the Proposed Marlborough Environment Plan will work with Finfish Aquaculture Management Areas

Proposed Variation 1A: Finfish Farming proposes that within a Finfish Aquaculture Management Area, a finfish farm that has an authorisation is a restricted discretionary activity.

It also proposes that within a Finfish Aquaculture Management Area, a finfish farm that has an existing coastal permit is a restricted discretionary activity. Outside of Finfish Aquaculture Management Areas, finfish farming is proposed to be a prohibited activity. The exception is in the open water Coastal Management Units where all aquaculture, including finfish farms, is proposed to be a discretionary activity.

Learn more about Coastal Management Units and Aquaculture Management Areas in Proposed Variation 1: Marine Farming.

Proposed Variation 1A: Finfish Farming was shaped by other aquaculture processes

We developed Proposed Variation 1A with input and guidance from several different sources. Some other important aquaculture processes were underway at the same time, and they guided our work on Proposed Variation 1A:

- The proposed National Environmental Standard for Marine Aquaculture (NESMA) was released for consultation, and
- The Ministry for Primary Industries proposed to amend the Marlborough Sounds Resource Management Plan (the operative plan) to relocate finfish farms in the Marlborough Sounds.

The National Environmental Standard: Marine Aquaculture consultation

National Environmental Standards are consistent planning requirements for specified activities and land uses across the country. The National Environmental Standard for Marine Aquaculture sets out several rules around managing marine farming. The NESMA comes into effect on 1 December 2020, and as a result, the aquaculture variations have been written to be consistent with the NESMA.

The NESMA allows most replacement consents for existing farms to be processed as non-notified, restricted discretionary activities. The NESMA also says we can set more lenient rules for existing marine farms that are applying for replacement consents. It also says that we can set more stringent rules in areas where aquaculture is identified as 'inappropriate'.

Proposed Variation 1A proposes that within a Finfish Aquaculture Management Area, a finfish farm with an existing coastal permit is also a restricted discretionary activity. Our policies and rules broadly align with the NESMA, so Proposed Variation 1A is not likely to be impacted by it.

Ministry of Primary Industries' proposal to relocate finfish farms

In April 2017, the Minister of Fisheries proposed to amend the Marlborough Sounds Resource Management Plan (the operative plan) so that six finfish farms could be relocated. The Minister appointed a Marlborough Finfish Farm Relocation Advisory Panel to provide him with independent advice on the proposal. The panel held public hearings, met with iwi and submitters, and reviewed expert research reports.

In July 2017, the Panel gave an independent report with recommendations¹ to the Minister. They recommended that three farms in Waihinau, Otanerau and Ruakaka Bay be relocated to Tio Point, Horseshoe Bay, and Richmond Bay South. For more information on the process run by the Ministry for Primary Industries use the following link:

<https://www.mpi.govt.nz/consultations/marlborough-salmon-relocation/>

Proposed Variation 1A is based on a lot of the technical expertise and research that the Panel used, because it was some of the most current information out there on finfish farms. Also, Proposed Variation 1A helps make the Panel's recommendations possible by creating Finfish Aquaculture Management Areas in Tio Point, Horseshoe Bay, and Richmond Bay South.

Which finfish farms do we think should be relocated?

There are currently 12 consented finfish farms in the Marlborough Sounds, and they are in these Coastal Management Units:

- Waitata Reach
- Waihinau Bay
- Forsyth Bay
- Kopaua
- Beatrix Bay
- Crail Bay (two sites)
- Otanerau Bay

¹ Report and Recommendations of the Marlborough Finfish Farm Relocation Advisory Panel. Prepared for the Minister for Primary Industries. July 2017.

- Ruakaka Bay
- Ngamahau Bay
- Clay Point
- Te Pangu Bay

Farms we think should be relocated

We've decided to adopt the recommendation of the Marlborough Finfish Farm Relocation Advisory Panel to create three new finfish farming sites to replace three existing ones. Three finfish farms (in Waihinau, Otanerau, and Ruakaka Bays) are operating in low flow areas. Therefore, we think that they should be relocated to the higher flow areas Tio Point, Richmond Bay South, and Horseshoe Bay.

Two existing farms in Crail Bay are also located in low flow areas. These were also identified for relocation, however suitable relocation sites have not been identified. At these low flow sites, the farms have the potential to continue to degrade the environment. For these reasons, we think that finfish farming is inappropriate here and we have not proposed a Finfish AMA over these two sites.

Farms we think don't need to be relocated

We think that three existing farms in Waitata Reach, Kopaua and Ngamahau Bay can stay where they are. This decision is based on our current knowledge, because they were granted consent, and because they are operating in high flow areas. These three areas were the subject of the Sustainably Growing King Salmon plan change proposal. That proposal was considered by a Board of Inquiry (BOI) who granted the consent. Conditions of the consent require the farms to monitor effects and change the management of the farms (for example reduce stocking rates or feed levels) to meet set environmental standards. So far, no adverse effects on water quality have been observed at these sites.

We also think that the three consented farms in Beatrix Bay, Clay Point and Te Pangu Bay should remain where they are. These farms have not been identified as having adverse effects on the environment.

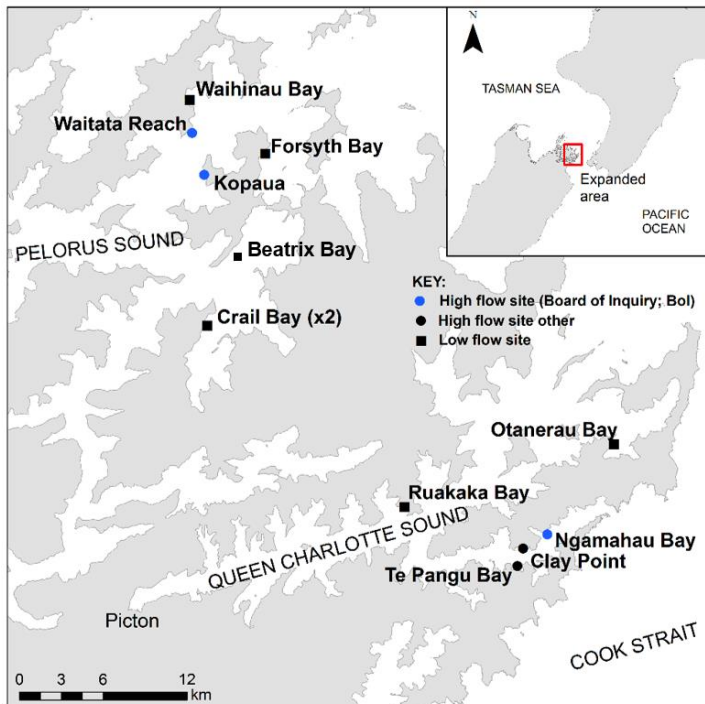


Figure 8: Location of 12 consented farms in the Marlborough Sounds at present (Source: Best management practice guidelines for salmon farms in the Marlborough Sounds – Part 2: Water quality standards and monitoring protocol)

Proposed Variation 1A requires finfish farms to follow best practice management guidelines

Proposed Variation 1A requires finfish farms in the Marlborough Sounds to follow the Best Management Practice Guidance. This requires finfish farms to be managed in a way that responds to monitoring information to reduce environmental effects/keep environmental effects within acceptable levels.

What does Proposed Variation 1A mean for Māori interests?

Proposed Variation 1A could technically be making new space for marine farming because it's different to the currently occupied areas. However, we don't intend for any *additional* space to be actually occupied by marine farms. We intend to work with the current space set aside through treaty settlement legislation for iwi. Whether our reorganisation of space creates a new settlement obligation under the legislation is a discussion between iwi and the crown.

What does Proposed Variation 1A mean for our landscapes?

The sounds are a place of scenic beauty. We acknowledge that finfish farms can potentially affect the qualities of our landscapes. So, where possible we located the proposed Finfish Aquaculture Management Areas in locations that do not have outstanding natural features, outstanding natural landscape values, or outstanding natural coastal character values in the Proposed Marlborough Environment Plan.

However, a number of finfish farms are currently located near land that has Outstanding Natural Feature and Outstanding Natural Landscape overlays in the Proposed Marlborough Environment Plan.

When we were deciding whether to relocate certain finfish farms, landscape played a role in that decision. The impact the finfish farms at Ruakaka Bay, Otanerau Bay and Waihinau Bay have on nearby landscape and natural feature values was a big reason to relocate them to Tio Point Richmond Bay South and Horseshoe Bay – sites that are not (or if so, only marginally) covered by an Outstanding Natural Feature and Outstanding Natural Landscape overlay in the Proposed Marlborough Environment Plan.

How might finfish farms impact the environment?

We now understand the impacts that finfish farms can have on the environment better than we used to. Key environmental impacts are measured in the water column, and on the seabed.

Finfish farms can increase nutrients and decrease oxygen in the water

Finfish are farmed in sea pens, where they are fed and raised until they are ready for harvest. When finfish are fed, not all the food is eaten. Food residues remain in the water column and can collect on the seabed. When finfish produce waste, it also accumulates in the water column and on the seabed. Excess food and waste can increase the amount of nutrients in the water.

Finfish respiration (breathing) can use up a lot of oxygen in the water around finfish farms. Decreased oxygen can affect fish and other animals in the water.

Measuring impacts on the water column

When the number of nutrients in the water increases beyond natural levels, this can affect water column health. In extreme cases, organisms like algae can grow out of control and become toxic to plants and animals living in the water column and on the seabed. Algal blooms are also toxic to people and their pets.

Best Management Practice Guidelines² were developed by a working group of experts and industry partners to help us manage the impacts of finfish on the water column. They contain Water Quality Standards (WQS), that require farms to increase monitoring or reduce farm impact when certain trigger levels are met. There are three water quality parameters that have thresholds: total nitrogen, dissolved oxygen, and chlorophyll-a. Council currently monitors these indicators as part of their State of the Environment monitoring.

Proposed Variation 1A includes a policy³ that requires parameters to be monitored, to measure potential effects on the water column. The policy is flexible in that it does not identify specific parameters to be measured. This means that Council can respond to the evolving scientific evidence on water column effects.

² *Best Management Practice Guidelines for salmon farming in the Marlborough Sounds – Part 2: Water quality standards and monitoring protocol. October 2019*

³ Policy 13.22.10 – Managing adverse effects of finfish farms

Measuring impacts on the seabed

Increased amounts of nutrients can also affect the seabed. The seabed chemistry can change, which creates intolerable conditions for many organisms. In the worst-case scenario, the seabed can become completely devoid of life.

Best Management Practice Guidelines⁴ set out clear and consistent requirements for monitoring and managing finfish farms' effects on the seabed. They contain Environmental Quality Standards that use Enrichment Stages from 1.0 to 10.0 to gauge seabed health.

An Enrichment Stage over 5.0 means that the seabed is very high in nutrients and some organisms may begin to die. Therefore, the Best Management Practice Guidelines recommend that an Enrichment Stage of 5.0 is the maximum acceptable level of nutrients beneath finfish farms in the Marlborough Sounds.

Nutrient and oxygen impacts are less noticeable the further you get from farms

The effects of high nutrients and low oxygen are less noticeable the further you get from the sea pen. Water mixes with water from the surrounding sounds and nutrients then become dispersed and there is less demand for oxygen.

⁴ *Best Management Practice Guidelines for salmon farming in the Marlborough Sounds: Benthic environmental quality standards and monitoring protocols. November 2014 / June 2019*