



24 June 2020

## **AQUACULTURE DECISION REPORT — FOUR COASTAL PERMITS IN OUTER PELORUS SOUND**

### **PURPOSE**

1. This report sets out my aquaculture decisions (as the relevant decision maker<sup>1</sup>) for four aquaculture decision requests made under section 114(4)(c)(ii) of the *Resource Management Act 1991* (RMA). The aquaculture decision requests are described below. My aquaculture decisions are made under section 186E of the *Fisheries Act 1996* (Fisheries Act).

### **SUMMARY**

2. I am satisfied the aquaculture activities proposed within the outer Pelorus Sound for coastal permits U180979, U180986, U180987 and U190620 will not have an undue adverse effect on the following fishing sectors:

- recreational - for the reasons set out in this report and summarised in paragraph 17;
- customary - for the reasons set out in this report and summarised in paragraph 17;
- commercial - for the reasons set out in this report and summarised in paragraph 42.

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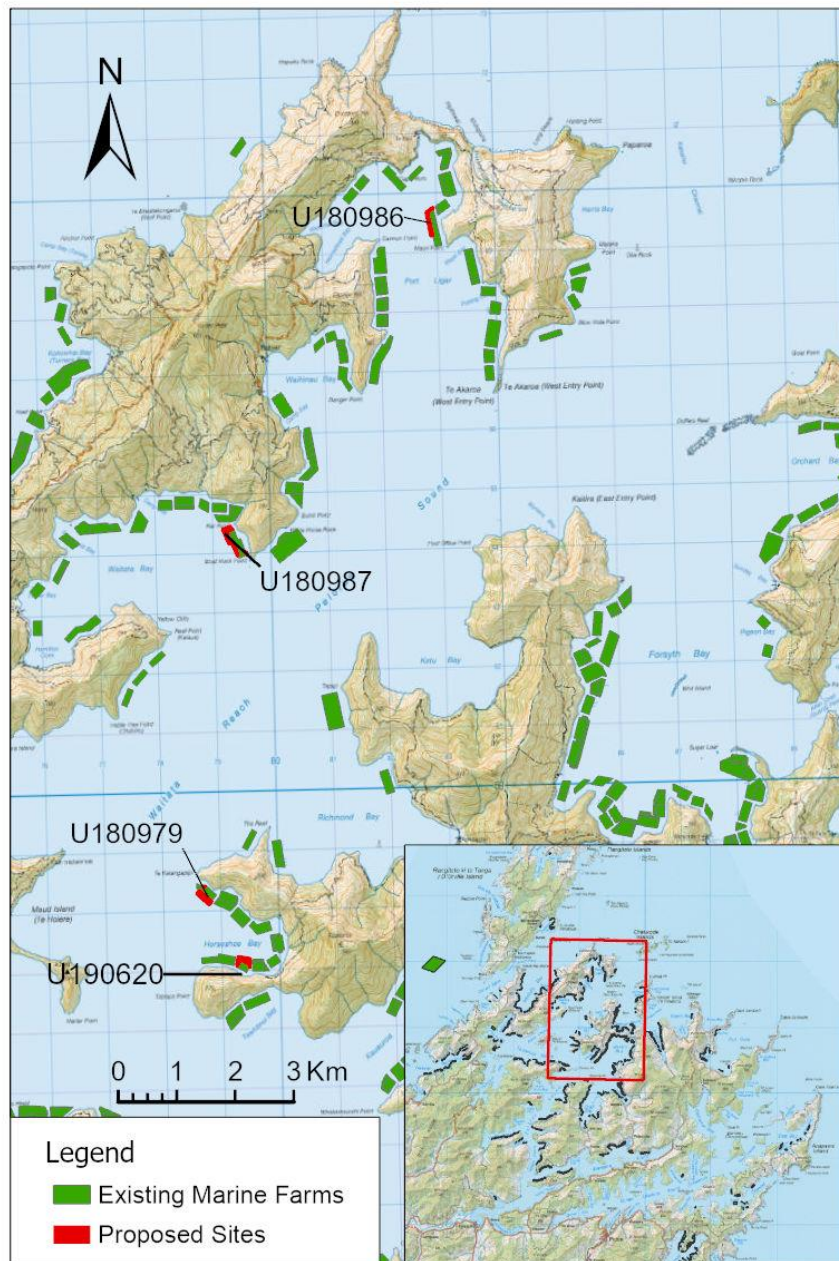
<sup>1</sup> Acting under authority delegated to me by the Director-General of the Ministry for Primary Industries (MPI) in accordance with section 41 of the *State Sector Act 1988*.

## AQUACULTURE DECISION REQUEST DETAILS

Regional Council:	Marlborough District Council (MDC)			
Farm structures:	Standard marine farm longlines and anchors.			
Coastal Permit	U180979	U180986	U180987	U190620
Date of Request:	17/12/2019	17/12/2019	17/12/2019	6/12/2019
Coastal Permit Applicant:	Goulding Trustees Limited	Shellfish Marine Farms Limited	Shellfish Marine Farms Limited	Aroma Aquaculture Limited
Location of marine farm site:	Horseshoe Bay	Port Ligar	Waitata Bay	Horseshoe Bay
Size of consent (ha):	4.83 hectares (ha)	5.07 ha	8.21 ha	3.00 ha
Size of new farm space (ha):	1.59 ha	0.62 ha	0.80 ha	1.30 ha
Species listed on consent:	Greenshell mussel <i>Perna canaliculus</i> , Blue mussel <i>Mytilus galloprovincialis</i> , Scallop <i>Pecten novaezelandiae</i> , Dredge oyster <i>Ostrea chilensis</i> , and seaweeds <i>Macrocystis pyrifera</i> , <i>Ecklonia radiata</i> , <i>Gracilaria</i> spp. and <i>Pterocladia lucida</i>	Greenshell mussel <i>Perna canaliculus</i> , Blue mussel <i>Mytilus galloprovincialis</i> , Scallop <i>Pecten novaezelandiae</i> , Dredge oyster <i>Ostrea chilensis</i> , and seaweeds <i>Macrocystis pyrifera</i> , <i>Ecklonia radiata</i> , <i>Gracilaria</i> spp. and <i>Pterocladia lucida</i>	Greenshell mussel <i>Perna canaliculus</i> , Blue mussel <i>Mytilus galloprovincialis</i> , Scallop <i>Pecten novaezelandiae</i> , Dredge oyster <i>Ostrea chilensis</i> , and Seaweeds <i>Macrocystis pyrifera</i> , <i>Ecklonia radiata</i> , <i>Gracilaria</i> spp. and <i>Pterocladia lucida</i>	Greenshell mussel <i>Perna canaliculus</i>

## Location and structures

3. Coastal permits U180979, U180986, U180987 and U190620 (**proposed sites**) are all located within the outer Pelorus Sound and all involve the renewal and small repositioning of existing marine farms (Map 1). In all cases, repositioning the sites brings them in line with the location of the existing structures. Where necessary, repositioning also avoids benthic features not suitable for marine farming as found by ecological survey (see Environment section). For each of the sites, an equivalent amount of area is to be surrendered and the size of the farms remains the same. Site and structures maps can be found in Appendix A.



**Map 1²: Location of the proposed sites in the outer Pelorus Sound.**

<sup>2</sup> Disclaimer: Maps 1 and 2 and all accompanying information accompanying (the “Maps”) is intended to be used as a guide only, with other data sources and methods, and should only be used for the purpose for which it was developed. The information shown in the Maps is based on a summary of data obtained from various sources. While all reasonable measures have been taken to ensure the accuracy of the Maps, MPI: (a) gives no

## Environment

4. The proposed new farm space authorised by coastal permit U180979 moves the farm seaward and avoids the exclusion area along the inshore part of the farm. Most of the consented area is located over deep silt and clay substratum with a variable component of natural shell. In contrast, inshore edges of the consented area were characterised by silt, fine sand and natural shell on a steeply sloping shore. Previous studies have observed occasional cobbles from this inshore area of the consented area, leading to a structure exclusion zone (Davidson 1996; Davidson and Brown 1999). The space being surrendered is in this area. Photos collected from areas offshore of the shore slope and within the consent show the area supports species typical of silt substratum (eg, cushion sea stars, sea cucumbers and occasional horse mussel). Davidson (1996), as well as Davidson and Brown (1999) observed opalfish from these deep areas and an occasional scallop. In the 2018 survey (Davidson, *et al.*, 2018b) one scallop was observed and no fish. No species, habitats or communities regarded as ecologically significant were observed during the latest benthic survey. The site has an average depth of 34 m.

5. The proposed new farm space authorised by coastal permit U180986 is located seaward in deeper water than the existing consented area it replaces. A benthic survey of the area found that it was mostly located over a deep and relatively flat benthos. Silt and clay substratum dominated with and without a small component of natural shell. Species abundance and diversity from most of the consented area was low compared to high current locations in the Marlborough Sounds. Benthic observations within mud dominated areas of the consent confirmed the area supported species typical of soft substratum (eg, cushion sea stars, sea cucumbers). No fish were observed from offshore silt and clay habitats. No scallops were observed during the present survey suggesting this species is not abundant (Davidson *et al.*, 2018a). The site has an average depth of 31.5 m.

6. The proposed new farm space authorised by coastal permit U180987 moves seaward (offshore) - to avoid the exclusion areas currently designated within the site. The benthic substratum offshore of the consented area was characterised by silt and clay (Davidson & Richards, 2018). Mussel shell debris was recorded at low levels in one place, but was mainly not present. Some natural shell was recorded as well. Species abundance and diversity was characteristic of central and outer Pelorus Sound. Benthic observations within the consent area showed species typical of silt dominated substratum (eg, cushion sea stars, sea cucumbers). Occasional eleven-arm starfish were seen near clumps of live mussels on the benthos under the farm backbones. Spotty were also occasionally observed. Hydroids were present offshore of the southern consent area. No other species of ecological significance were observed during the survey. The site has an average depth of 19.5 m.

7. The proposed new farm space authorised by coastal permit U190620 is located seaward in deeper water than the existing consent it replaces and aligns with surrounding farms. A benthic survey (Davidson, *et al.*, 2019) of the existing consent area found soft substratum, comprising silt and clay, with some cobble, sand and natural shell at the western

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inshore consent corner. Species abundance was low, as is typical of soft substratum. Only starfish and a few spotty were recorded, but no habitats or communities of ecological significance. The site has an average depth of 17.6 m.

### ***Input from stakeholders***

8. Fisheries New Zealand did not seek input from stakeholders on these four applications as they all involve only a minor change in position of the existing farms and all are within areas dominated by marine farming.

## **STATUTORY CONTEXT**

9. Section 186E(1) of the Fisheries Act requires me to, within 20 working days after receiving a request for an aquaculture decision from a regional council, make a determination or reservation (or one or more of them in relation to different parts of the area to which the request relates).

10. A ‘determination’ is a decision that I am satisfied that the aquaculture activities authorised by the coastal permit will not have an undue adverse effect on customary, recreational, or commercial fishing<sup>3</sup>. A ‘reservation’ is a decision that I am not satisfied that the aquaculture activities authorised by the coastal permit will not have an undue adverse effect on fishing.

11. If I make a reservation, I am required to specify whether the reservation relates to customary, recreational or commercial fishing or a combination of them. If the reservation relates to commercial fishing, I must specify the stocks and area concerned—section 186H(4).

12. Section 186GB(1) of the Fisheries Act specifies the only matters I must have regard to when making an aquaculture decision. These matters are as follows:

- the location of the area that the coastal permit relates to in relation to areas in which fishing is carried out;
- the likely effect of the aquaculture activities in the area that the coastal permit relates to on fishing of any fishery, including the proportion of any fishery likely to become affected;
- the degree to which the aquaculture activities in the area that the coastal permit relates to will lead to the exclusion of fishing;
- the extent to which fishing for a species in the area that the coastal permit relates to can be carried out in other areas;
- the extent to which the occupation of the coastal marine area authorised by the coastal permit will increase the cost of fishing; and

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<sup>3</sup> Section 186C of the Fisheries Act defines “adverse effect,” in relation to fishing, as restricting access for fishing or displacing fishing. An “undue adverse effect” is not defined. However, the ordinary meaning of “undue” is an effect that is unjustified or unwarranted in the circumstances. For the purpose of my decision under section 186E, an undue adverse effect will mean the significance of the effect on restricting access for fishing, displacing fishing or increasing the cost of fishing is unjustified or unwarranted in the circumstances.

- the cumulative effect on fishing of any authorised aquaculture activities, including any structures authorised before the introduction of any relevant stock to the quota management system.

13. For the purpose of my assessment, customary fishing differs from recreational fishing if it is undertaken outside of the recreational limits provided in the *Fisheries (Amateur Fishing) Regulations 2013* (Amateur Regulations) and is instead authorised by a customary authorisation.

14. Appendix B gives further information on statutory context.

## **ASSESSMENT**

15. The following is an assessment, within the statutory context, of the effects of the proposed aquaculture activities on recreational, customary and commercial fishing. It is based on all the relevant information available to me.

16. This assessment relates to the 1.59 ha, 0.62 ha, 0.80 ha and 1.30 ha of new consented space authorised by the coastal permits listed herein as if they had not been previously occupied.

### ***Recreational and customary fishing***

17. I am satisfied the aquaculture activities that may operate within the proposed sites will not have an undue adverse effect on recreational or customary fishing because:

- Only a small amount of recreational and customary fishing is likely to occur at the proposed sites;
- anchored rod/line fishing could still occur when the proposed structures are installed;
- there are other recreational and customary fishing areas available nearby;
- occupation of the proposed sites will result in a minimal, if any, increase in the cost of recreational or customary fishing;
- the likely effect of occupation of the proposed sites on recreational and customary fishing is negligible; and
- this small effect added to existing effects of approved aquaculture space will not cause the cumulative effect on recreational or customary fishing to become undue.

18. The above conclusions were reached following the more detailed assessment below.

### ***Location of the coastal permit area relative to fishing areas***

19. The location of the coastal permit areas relative to fishing areas for recreational and customary sectors are considered separately below.

### ***Recreational fishing***

20. I consider the areas of the proposed sites are located where some recreational fishing is likely to occur. The localities of the proposed sites are not particularly important for recreational fishing, but some does occur around this area. Methods used include mobile and stationary

rod/line fishing from a boat. The main species which could be caught include blue cod, snapper, kahawai, gurnard and sea perch.<sup>4</sup>

21. Information on recreational fishing used in this assessment comes from:

- two national interview surveys in the 2011-12 and 2017-18 fishing years (Wynne-Jones *et al.*, 2014, 2019);
- three aerial over-flight surveys coupled with boat ramp surveys covering Fisheries Management Area 7 (FMA 7) over:
  - 12 months in 2005-06 (Davey *et al.*, 2008);
  - two days in 2014-15 (Hartill, *et al.*, 2015); and
  - 12 months in 2015-16 (Hartill, *et al.*, 2017);
- Amateur Charter Vessel (ACV) returns. Charter fishing must be reported to MPI and reports include location of fishing and catches.

22. Rod and line fishing from boats targeting blue cod, scallops or snapper was the most popular type of fishing in the Port Ligar survey area (which includes the proposed sites). Some set netting and diving from a private boat for rock lobster, sea perch and hāpuku also occurred (Davey *et al.*, 2008).

23. Averaged over the two national interview panel surveys in those fishing in Pelorus Sound (the survey area which includes the proposed sites), were mostly fishing from trailer boats (65% of trips), launches (16%) or from land (10%). Most fishing was done using rod or line (91%). Nets (6%), dredge (6%) and diving (4%) were also used. Species caught included blue cod (46% of fishing trips), snapper (15%), kahawai (14%), gurnard (12%) and scallops (7%). Other species included tarakihi, barracouta and flounder (Wynne-Jones *et al.*, 2014, 2019).<sup>5</sup> Scallops appear in these data, since they were popular in Pelorus Sound before the current temporary prohibition on scallop take in this area. However, it is not clear that recreational scallop fishing used to be particularly important in the areas of the proposed sites.

24. Aerial surveys of fishing boats show a large number of recreational fishing vessels fish in Queen Charlotte Sound, Croisilles Harbour and some areas in the outer Pelorus Sound. As shown in Map 2, fishing intensity is reasonably low in the areas of Pelorus Sound where the proposed sites are located, but relatively intense recreational boat fishing occurs nearby around Ketu Bay. Fishing in this area was historically mainly for scallops, however, this has reduced significantly.

25. ACV fishing must be reported to MPI, and include location of fishing and amount of catch. ACV fishing around the locations of the proposed sites target blue cod by hand line, usually while drifting, but also at anchor. In the nine years from October 2010 to November 2019, 400 ACV fishing events were received from outer Pelorus Sound (0.7 events per km<sup>2</sup>)

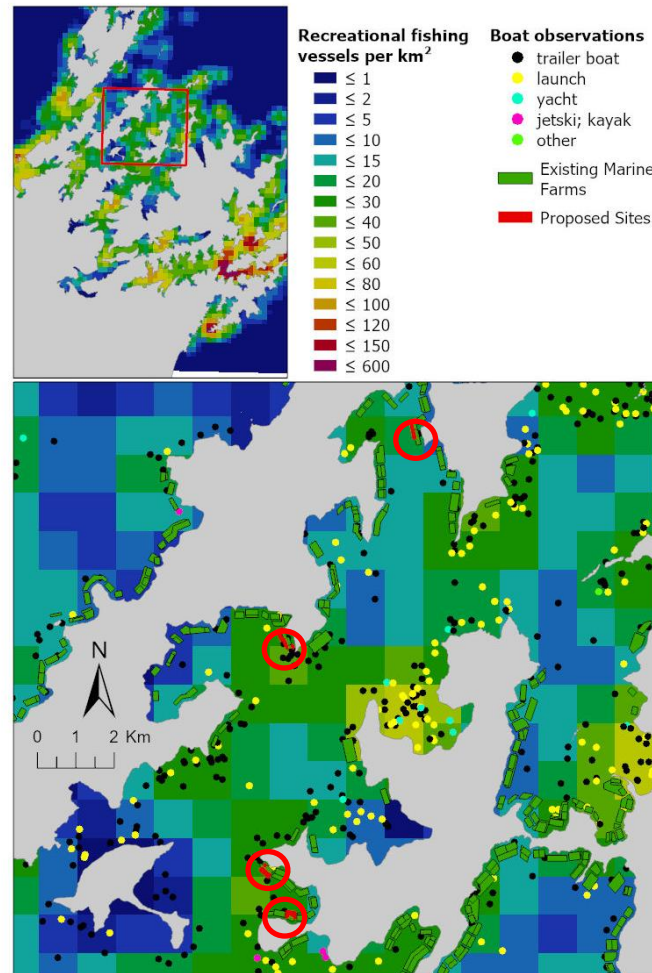
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<sup>4</sup> Recreational fishers are not required to report catch or fishing locations. MPI is therefore unable to estimate an average annual recreational catch or proportion of recreational catch likely to be affected by the proposed aquaculture activities. Rather, MPI can only assess the effect of the proposed aquaculture activities on recreational fishing based on qualitative information.

<sup>5</sup> The national survey is designed to give statistically robust estimates at the scale of FMAs and not smaller areas but here has been used to give a rough characterisation of recreational fishing patterns within a single survey strata covering Pelorus Sound.

compared with about 2,256 events in Queen Charlotte Sound (7.3 events per km<sup>2</sup>). On this basis outer Pelorus Sound is relatively unimportant for amateur charter fishing.

26. Table 1 summarises my assessment of the main methods used and species likely to be caught by recreational fishers at the proposed sites based on recreational fishing surveys, the applicants' benthic surveys, ACV data and anecdotal sources.



**Map 2.** Estimated annual intensity of recreational fishing from boats in 2015-16 and actual boat observations from all aerial surveys in the Marlborough Sounds (Davey *et al.*, 2008, Hartill *et al.*, 2017). The locations of the proposed sites in outer Pelorus Sound are circled in red.



**Table 1: Recreational fishing methods used and species likely to be caught near and around the area of the proposed sites, based on the available information.**

	<b>ACV data for Port Ligar, Waitata Bay and Horseshoe Bay</b>	<b>Recreational fishing surveys (Pelorus Sound and Port Ligar survey areas)</b>	<b>Other information</b>	<b>My assessment</b>
<b>Methods used</b>	Hand line drifting and hand line on anchor.	<p>In the wider Pelorus Sound, fishing methods include: rod/line (91% of trips), net (6%), dredge (6%), diving (4%) (Wynne-Jones <i>et al.</i>, 2014, 2019)</p> <p>Marlborough Sounds is a high use recreational fishing area, but the proposed sites' areas of Pelorus Sound are relatively low use (Hartill <i>et al.</i>, 2017).</p>	<p>The habitat types recorded in the applicants' benthic surveys support line, pot, dredge and net finfish fishing methods.</p> <p>Diving may occur in the general locality and particularly inshore of the proposed sites. However, the sites themselves are probably too deep, being an average depth of 25 m.</p> <p>Set netting is possible, but usually occurs in shallower bays and estuaries.</p>	<p>Stationary and mobile rod/line, and possibly long lining methods may be used at the proposed sites.</p> <p>Set netting is possible but not likely.</p> <p>It is not likely dredging or diving would occur within the proposed site, given the decline of scallops in the top of the South Island.</p>
<b>Species caught</b>	Targeted –, blue cod, snapper Caught – blue cod, spiny dogfish, hāpuku, snapper.	<p>In the whole Pelorus Sound the main species caught are: blue cod (46%), snapper (15%) kahawai (14%), gurnard (12%) and scallops (7%) (Wynne-Jones <i>et al.</i>, 2014, 2019).</p> <p>Main target species in Port Ligar survey area (covering the proposed sites): blue cod, scallops, snapper, and rock lobster. However, main species caught in Inner Port Ligar survey area: scallops (historically), blue cod, kahawai, and sea perch (Davey, <i>et al.</i>, 2008).</p>	<p>Scallops, blue cod and other recreational fish species were observed in ecological surveys of the existing farms, but not specifically within the proposed extensions. These species were generally in low abundance and only in areas not occupied by growing structures.</p>	<p>The absence of hard substrates beneath the proposed new farm spaces makes it unlikely rock lobster, or other reef species would be caught there. Blue cod will be present in some areas of the existing farms where rocky substrate or live mussel reefs occur.</p> <p>Snapper, kahawai, gurnard and sea perch are likely to be the main species available for fishing at these sites.</p>

### ***Customary Fishing***

27. I consider the proposed sites may be located where there is customary fishing, but they are unlikely to be particularly important for this activity. The main method likely to be used, if any, is stationary rod/line fishing from a boat. The main species caught would be, flatfish and snapper.

28. Up to eight Iwi may have customary fisheries interests in the areas of the proposed sites.<sup>6</sup> There are no mātaihai reserves, temporary rāhui or taiāpure customary management areas in the vicinity of the proposed marine farms.

29. There is little quantitative data available on customary catch taken in the vicinity of the proposed sites. Fishing locations for customary authorisations are usually only reported by FMA or Quota Management Area (QMA), although more specific sites are sometimes identified. Customary fishers are not required to report catch or fishing locations.

30. From Jan 1998 to April 2020, 83 customary fishing authorisations were reported to Fisheries New Zealand for Horseshoe Bay, unspecified areas of Pelorus Sounds (areas that could overlap with the proposed sites) and nearby Ketu Bay (where similar species may be caught). These were mostly for scallops, pāua, blue cod and crayfish. It is not possible to say whether any of these authorisations involved customary fishing in the areas of the proposed sites, but it is reasonable to assume they may have. The available data is therefore used as the best available information on species which could also occur in the sites.

31. I have assessed likely customary fishing in the proposed sites in Table 2 below, using the available information.

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<sup>6</sup> Ngāti Tama, Ngāti Apa, Ngāti Koata, Ngāti Kuia, Ngāti Rārua, Ngāti Toa, Rangitāne, Te Āti Awa

**Table 2: Customary fishing methods used and species caught or targeted in the areas of the proposed sites, based on the available information.**

	Source of information		
	Customary authorisations issued for unspecified areas of Pelorus Sound, Horseshoe Bay and Ketu Bay	Other information	My assessment
<b>Methods used</b>	No customary authorisations specifically give Waitata Bay or Port Ligar (where U180987 and U180986 are located) as a location. However, there are authorisations for Horseshoe Bay (U180979 and U190620), nearby Ketu Bay and Pelorus Sound as a whole.	Recreational fishers commonly use rod/line methods, and dredging so customary fishers may also use these methods. The sites are possibly too deep for diving and set netting. Longlines may be used.	Rod/line fishing is the most common methods for recreational fishers and may also be used by customary fishers.  Set netting is possible but not likely.  It is not likely scallops would be dredged or dived for within the proposed sites, given their recent declines in the top of the South Island.
<b>Species caught or targeted</b>	Scallops, pāua, blue cod and rock lobster are most common species taken with customary authorisations that might include the proposed sites. Butterfish, blue moki, flatfish, kina, hāpuku / bass, Pacific oysters and snapper have also been sought.	Pāua, rock lobster, butterfish, and blue moki are not typically found over the soft silty substrate at the proposed sites. Nor are kina, hāpuku / bass and Pacific oysters likely in this habitat.  Scallops and blue cod were observed in ecological surveys of the existing farms, but not specifically within the proposed extensions. These species were generally in low abundance and only in areas not occupied by growing structures.	The absence of hard substrates beneath the proposed sites makes it unlikely rock lobster, butterfish or other reef species would be caught there.  Flatfish and snapper are likely to be the main species available for fishing at this site.

### *Exclusion of fishing*

32. The proposed marine farming structures are standard mussel longlines about 18 m apart on average. I consider that any recreational or customary set netting, longlining, or rod/line drift fishing occurring in the area of the proposed site may be excluded from the proposed site because of the risk of entanglement.<sup>7</sup>

33. However, I consider that stationary rod and line fishing could continue between the proposed structures, as anecdotal information suggests fishers commonly fish by rod/line within mussel farms. Some diving may still occur, but is unlikely given the depth of these sites.

### *Availability of other areas*

34. I consider alternative areas around Pelorus Sound could absorb any recreational and customary fishing displaced from the proposed sites because:

- the proposed sites are only small and the amount of fishing that would occur there is likely to be small;
- the same species seen over the mud and silt substrate at the proposed sites could be found in most areas of Pelorus Sound, where this substrate is common. No information suggests the proposed sites offer unique habitats or species mix; and
- the same methods used at the proposed sites could be used elsewhere nearby; sufficient alternative areas exist, especially for stationary rod/line fishing.

35. Apart from the closed area for finfish fishing around Maud Island, and longline and set net restrictions in certain areas under the Amateur Regulations, all the waters of Pelorus Sound are available for recreational and customary fishing. Many alternative areas are available for the types of fishing that could occur at the proposed sites.

### *Increased cost of fishing*

36. I consider that the aquaculture activities at the proposed sites will increase the cost of recreational and customary fishing minimally, if at all.

37. I consider that any recreational or customary fishing excluded from the sites could be carried out nearby with minimal additional cost, as a result of a marginal increase in fuel cost or change in method.

### *Likely effect on fishing*

38. I consider the effect on recreational and customary fishing from the proposed aquaculture activities will be small because:

- not all recreational or customary fishing methods would be excluded from the proposed sites;
- the area of the proposed sites are small and unlikely to be of particular importance to recreational or customary fishers; and

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<sup>7</sup> Anecdotal information from recreational fishers suggests that spaces between longlines of mussel farms in the Marlborough Sounds are too narrow for longlining, set netting and trolling without risk of entanglement. Drift fishing is also difficult between closely set mussel lines because of risk of entanglement.

- alternative areas around Pelorus Sound could absorb the recreational and customary fishing displaced from the proposed sites.

### ***Cumulative effects***

39. I consider existing aquaculture in the Marlborough Sounds may have affected recreational and customary fishing. However, I consider the cumulative effects on recreational and customary fishing, including the aquaculture activities at the proposed sites, will not be undue.

40. There is about 1,583 ha of authorised aquaculture space in outer Pelorus Sound, where the proposed sites are located. There are also about 3,300 ha of marine farms in the wider Marlborough Sounds.

41. I consider the cumulative effects on recreational and customary fishing, including the aquaculture activities at the proposed sites, will not be undue because:

- some recreational and customary fishing (eg, anchored rod/line fishing) can still occur within marine farms;
- not all existing farms are located in popular recreational and customary fishing areas; and
- the area of the proposed sites is minimal with regard to all of the space available for recreational and customary fishing in Pelorus Sound and the wider Marlborough Sounds.

### ***Commercial fishing***

42. I am satisfied the aquaculture activities that may operate within the proposed sites will not have an undue adverse effect on commercial fishing because:

- a negligible amount of commercial fishing is likely to occur in the proposed sites;
- a negligible amount of commercial fishing, if any, is likely to be excluded from the proposed sites;
- there are alternate fishing grounds within the quota management areas for any fishing excluded from the proposed sites;
- occupation of the proposed sites will result in a negligible, if any, increase in the cost of commercial fishing;
- effects on commercial fishing catch will be negligible; and
- the additional adverse effect on commercial fishing is negligible and will not cause the cumulative effect on commercial fishing for any fish stock to become undue.

43. The above conclusions were reached following the more detailed assessment below.

### ***Location of the coastal permit area relative to fishing areas***

44. I consider the proposed sites are located where there is likely to be minimal commercial fishing.

45. Fisheries New Zealand used CatchMapper<sup>8</sup> to identify the fishing that potentially occurs in the vicinity of the proposed sites. The proposed sites are surrounded by other marine farms and the likelihood that any commercial fishing occurs that close to existing structures is very small. Table 3 gives the fishing that may occur within the vicinity.

46. Commercial cod potting, dredging, set netting, longlining, diving, hand gathering and trawling all occur at the proposed sites. The main species caught were blue cod, scallop, flatfish, school shark, sea cucumber, elephant fish, horse mussel, gurnard and kahawai. Other species also caught were rock lobster, kina and garfish. Scallop dredging occurred in the past, but is unlikely now.

47. No hard substrate was observed during surveys of the proposed sites. Therefore fishing for species dependent on such habitat is considered unlikely at this site. Such species would have included rock lobster, butterfish, and horse mussel. The proposed sites are not suitable for beach seining because of the existing structures shoreward of the new farm space.

48. Most of the potentially affected commercial fisheries in Table 3 are managed as stock units over FMA 7<sup>9</sup> FMA 7 spans the west coast and top of the South Island from Awarua Point in Fiordland to the Clarence River in Marlborough. The proposed sites are very small in relation to the area of the potentially affected fisheries.

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<sup>8</sup> CatchMapper is a spatial database of all commercial fishing events for the eleven years from October 2007 to September 2018 (see Appendix C for more explanation).

<sup>9</sup> FMAs can be seen here <https://fs.fish.govt.nz/Page.aspx?pk=45&tk=389>

**Table 3: Fisheries identified as potentially occurring within the affected footprint of the proposed marine farm and estimated relative amount of the fishstock caught within the footprint.** <sup>10,11</sup>

All types of fishing detected within proposed farm footprint (and main fishstock)	% high spatial resolution	Average annual no. of overlapping fishing days	% of main fishstock landings potentially affected	Commercial fishing potentially affected	Likelihood of being affected
Blue cod (BCO7), cod pot	0%	158.4	less than 0.01%	Yes	This fishery could occur here but thought to mainly occur elsewhere
Scallop (SCA7), dredge	0%	143.0	less than 0.01%	Yes	Might occur here and might be slightly displaced
Flatfish(FLA7), set net	0%	104.5	less than 0.01%	Yes	This fishery could occur here but thought to mainly occur elsewhere
Other species longline (mainly SCH7)	3%	87.3	less than 0.01%	Yes	This fishery could occur here but thought to mainly occur elsewhere
School shark(SCH7), longline	0%	65.4	less than 0.01%	Yes	This fishery could occur here but thought to mainly occur elsewhere
Sea Cucumber, Diving	0%	37.1	less than 0.01%	Yes	Might occur here and might be slightly displaced
Other species (mainly ELE7), set net	13%	26.2	less than 0.01%	Yes	Might occur here and might be slightly displaced
Other species (mainly HOR7), hand gathering	0%	16.1	less than 0.01%	Yes	Might occur here and might be slightly displaced
Inshore Mixed species (mainly GUR7, FLA7), trawl	100%	4.6	less than 0.01%	Yes	Trawling happens nearby and might be slightly displaced
Kahawai (KAH3), set net	0%	2.5	less than 0.01%	Yes	Might occur here and might be slightly displaced
Gurnard (GUR7), trawl	100%	2.1	less than 0.01%	Yes	Trawling happens nearby and might be slightly displaced
Flatfish (FLA7), trawl	100%	1.1	less than 0.01%	Yes	Trawling happens nearby and might be slightly displaced
Rock lobster, Rock Lobster Pot (CRA5)	0%	706.4	less than 0.01%	No	Rock lobster potting will not occur in this habitat
Kina (SUR7A), diving	0%	179.9	less than 0.01%	No	Kina diving will not occur in this habitat
Other species (mainly ELE7, SPO7), set net	0%	77.6	less than 0.01%	No	Butterfish will not occur in this habitat
Blue cod (BCO7), hand line	0%	75.7	less than 0.01%	No	Hand lining on commercial boats for recreation
Other species (mainly BCO7), hand line	0%	10.4	less than 0.01%	No	Hand lining on commercial boats for recreation
Other species (mainly GAR7), beach seine	0%	6.3	less than 0.01%	No	Seining will not occur at this site due to the existing structures

<sup>10</sup>Main fishstock refers to the main species caught in the fishing cluster but does not include all species taken by those fishing events.

<sup>11</sup> The amount of fishing overlapping with farm footprints is more precisely estimated where fishing location is reported by specific point coordinates rather than general statistical areas. The presence of a fishery within a footprint might be mistaken or the number of days overestimated when the fishing events were not mapped to precise locations. In these cases, other knowledge or available information may be used to confirm whether a fishery might potentially be affected.

### *Exclusion of fishing*

49. I consider the amount of fishing that will be excluded is likely to be minimal. Trawl, set net and longline fishing may occur close by. However, given that marine farms already exist immediately adjacent to, and surrounding the proposed sites, the additional obstruction to commercial fishing is likely to be negligible.

50. The fisheries given in Table 3 were identified by overlaying exclusion areas for each fishing method with the mapped fishing events in CatchMapper. The exclusion areas, also termed footprints of the proposed sites, include appropriate buffer zones around the farms depending on the type of fishing method. Towed fishing methods have larger footprints, ie larger areas from which they would be excluded, than static fishing methods. Only new footprint areas where fisheries have not already been excluded by existing authorised aquaculture is included in this assessment.

51. Set net and longline fishing, if any occurs, would be excluded from within the immediate boundaries of the proposed sites. Trawling is likely to be excluded from an area up to 250 m from the proposed sites, but as stated earlier is unlikely to occur that close given the proximity of other farms.

### *Availability of other fishing areas*

52. I consider alternative areas are available to absorb any commercial fishing displaced from the proposed sites, if there was any, because:

- the annual catches of each species potentially caught at these sites are a negligible percentage of the total catches for those species within the relevant Quota Management Area (QMA) (Table 3);
- the same methods as those possibly used at the proposed sites could be used elsewhere in the relevant QMA for each fishstock; and
- there is nothing special or unique about the fisheries habitat in the proposed sites.

### *Increased cost of fishing*

53. I consider that the aquaculture activities at the proposed sites are highly unlikely to increase any cost of commercial fishing. The proposed sites are not unique or especially productive for fishing and the area excluded is very small compared to other fishing grounds available nearby.

### *Likely effect on fishing*

54. Overall, I consider the aquaculture activities at the proposed sites will have a negligible adverse effect on commercial fishing.

55. CatchMapper was used to estimate that on average less than a combined 20 kg of fish per year were possibly caught from the footprints of the four proposed sites<sup>12</sup> (from the fisheries assessed as potentially affected in Table 3).

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<sup>12</sup> Over the 11 most recent years, to 2017/19, that data is available.



### *Cumulative effects*

56. I consider existing aquaculture in the Marlborough Sounds has affected commercial fishing. However, I consider the cumulative effects on commercial fishing, including aquaculture activities at the proposed sites, will not be undue.

57. There is about 1,583 ha of authorised aquaculture space in outer Pelorus Sound, where the proposed sites are located. There are also about 3,300 ha of marine farms in the wider Marlborough Sounds that make up about 23% of the 14,700 ha of aquaculture in FMA 7.

58. I consider the cumulative effects on commercial fishing, including from aquaculture activities at the proposed sites, will not be undue because:

- for any fish stocks potentially affected by aquaculture activities at the proposed sites, the maximum cumulative effect has previously been assessed as approximately 3.3% of annual average catch of any fishery (snapper (SNA7)), and not undue; and
- the amount of additional catch that might have been displaced at the proposed sites is negligible.

## AQUACULTURE DECISIONS

59. I am satisfied – based on all relevant information available to me – the activities proposed for the areas authorised by coastal permits U180979, U180986, U180987 and U190620 will not have an undue adverse effect on:

- a) recreational fishing, and
- b) customary fishing, and
- c) commercial fishing.

60. Accordingly, my decisions are determinations for coastal permits U180979, U180986, U180987 and U190620 with regard to:

- a) recreational fishing, and
- b) customary fishing, and
- c) commercial fishing.

61. The areas of the determinations on recreational, customary and commercial fishing totals 4.31 ha within the following coordinates (NZTM2000):

U180979 (1.59 ha):

Point	Easting	Northing
Part 1		
1	1678835.07	5458160.04
2	1678795.35	5458116.80
3	1678596.63	5458299.32
4	1678635.87	5458342.05
Part 2		
5	1678729.56	5458415.93
6	1678724.85	5458410.83
7	1678706.49	5458418.94
8	1678715.42	5458428.66

U180986 (0.62 ha):

Point	Easting	Northing
1	1682927.31	5469294.06
2	1682903.20	5469288.49
3	1682833.39	5469681.85
4	1682942.53	5469753.89
5	1682942.75	5469752.64
6	1682838.14	5469682.54
7	1682883.12	5469488.63

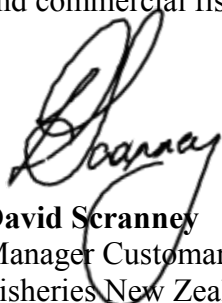
U180987 (0.80 ha):

Point	Easting	Northing
Part 1		
1	1679587.05	5463985.71
2	1679584.37	5463984.64
3	1679568.05	5464029.76
Part 2		
4	1679211.39	5464429.10
5	1679297.44	5464194.55
6	1679341.86	5464210.49
7	1679410.95	5464022.24
8	1679426.64	5463978.87
9	1679329.71	5464203.60
10	1679282.41	5464186.08
11	1679182.20	5464418.39
Part 3		
12	1679259.60	5464446.54
13	1679224.25	5464433.82
14	1679308.19	5464464.62
15	1679308.60	5464464.15

U190620 (1.30 ha):

Point	Easting	Northing
1	1679475.83	5457048.82
2	1679475.44	5457035.17
3	1679468.84	5457036.29
Part 2		
4	1679479.67	5457181.46
5	1679477.04	5457090.60
6	1679319.33	5457178.67
7	1679260.92	5457073.91
8	1679286.45	5457214.36

62. The reasons for my decisions are set out in the conclusions for recreational, customary and commercial fishing in this report.



**David Scranney**  
 Manager Customary Fisheries and Spatial Allocations  
 Fisheries New Zealand – Tini a Tangaroa  
 Ministry for Primary Industries – Manatū Ahu Matua

Dated 24 June 2020

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# APPENDIX A: SITE AND STRUCTURES MAPS

## 1. U180979

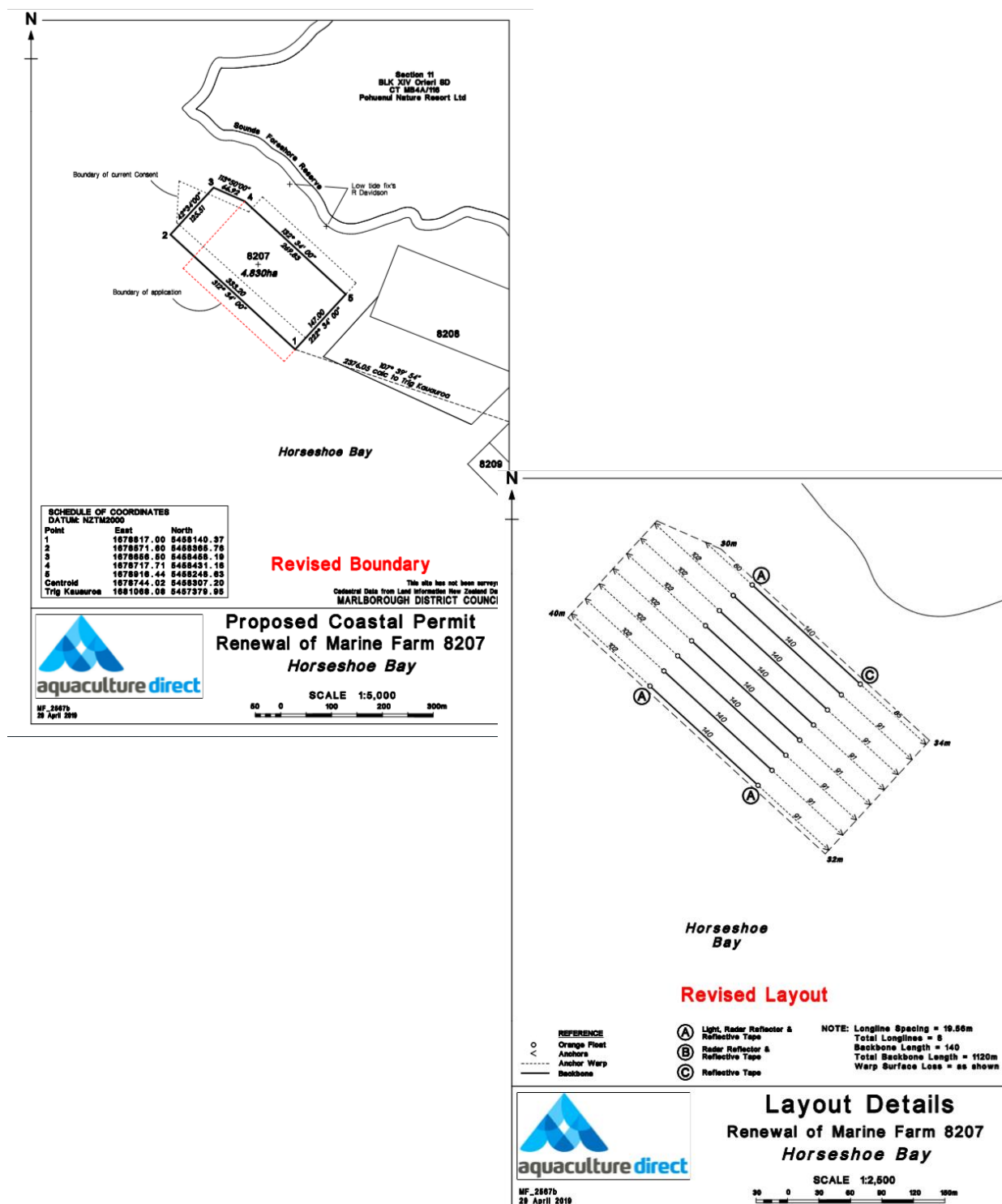


Figure 1. Copies of site map and structures plan showing location of new space and structures authorised by coastal permit U180979 taken from Marlborough District Council coastal permit decision paper.

SCHEDULE OF COORDINATES			
DATUM: NZTM2000			
Point	East	North	
1	1662903.20	5489268.49	
2	1662833.39	5489081.88	
3	1662942.53	5489763.89	
4	1663020.32	5489319.54	
Centroid	1662924.86	5489509.94	
Il Maori Point	1663184.80	5489084.94	

**RENEWAL OF PART OF MARINE FARM 8617**  
**Port Ligar, Pelorus Sound**

SCALE 1:5,000

60 0 100 200 300 400

**Layout Details**  
**Renewal of Part of Marine Farm 8617**  
**Shellfish Marine Farms Ltd**  
**Port Ligar, Pelorus Sound**

SCALE 1:2,500

20 0 50 100 150m

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### 3. U180987

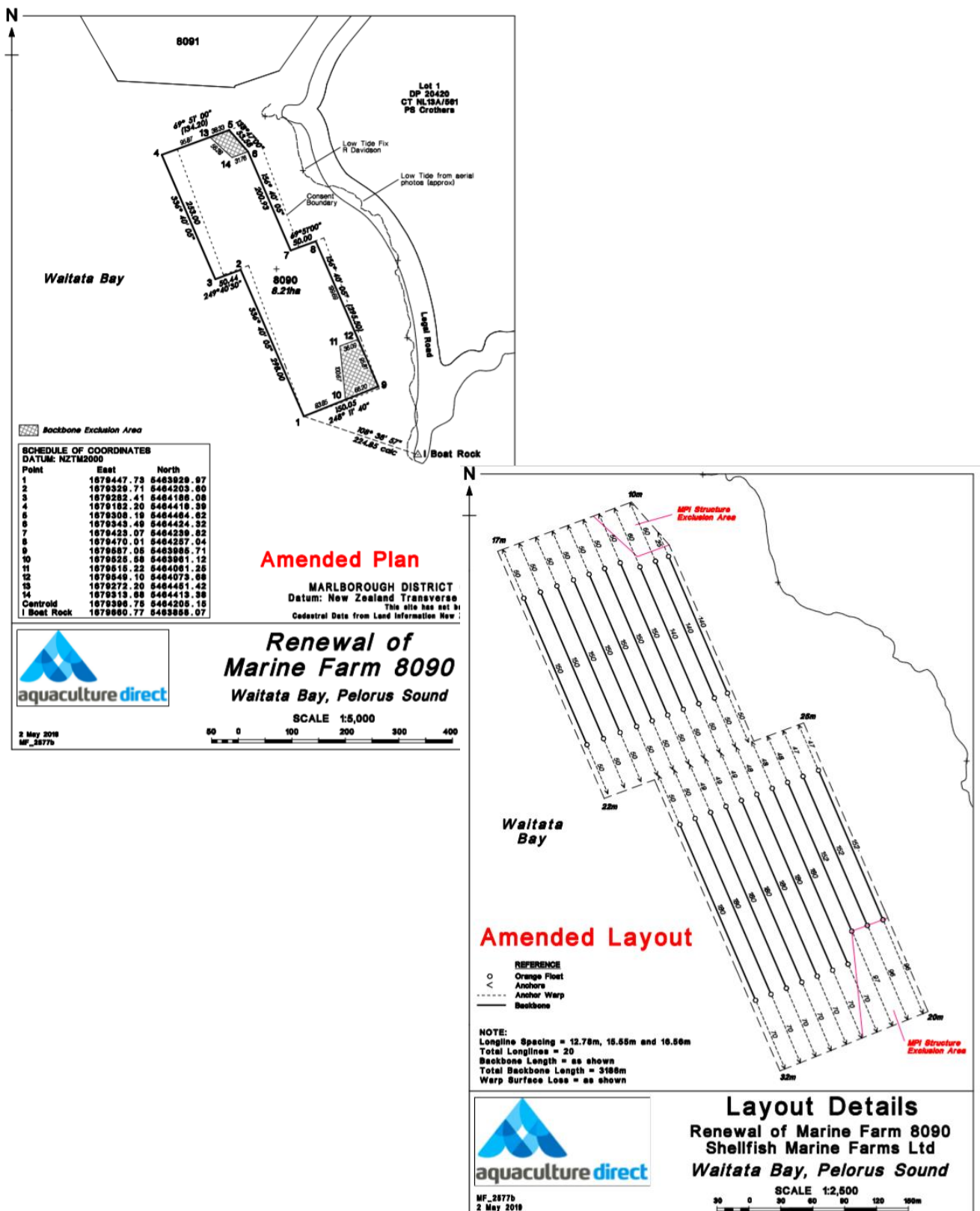


Fig. 3 Copies of site map and structures plan showing location of new space and structures authorised by coastal permit U180987 taken from Marlborough District Council coastal permit decision paper.

#### 4. U190620

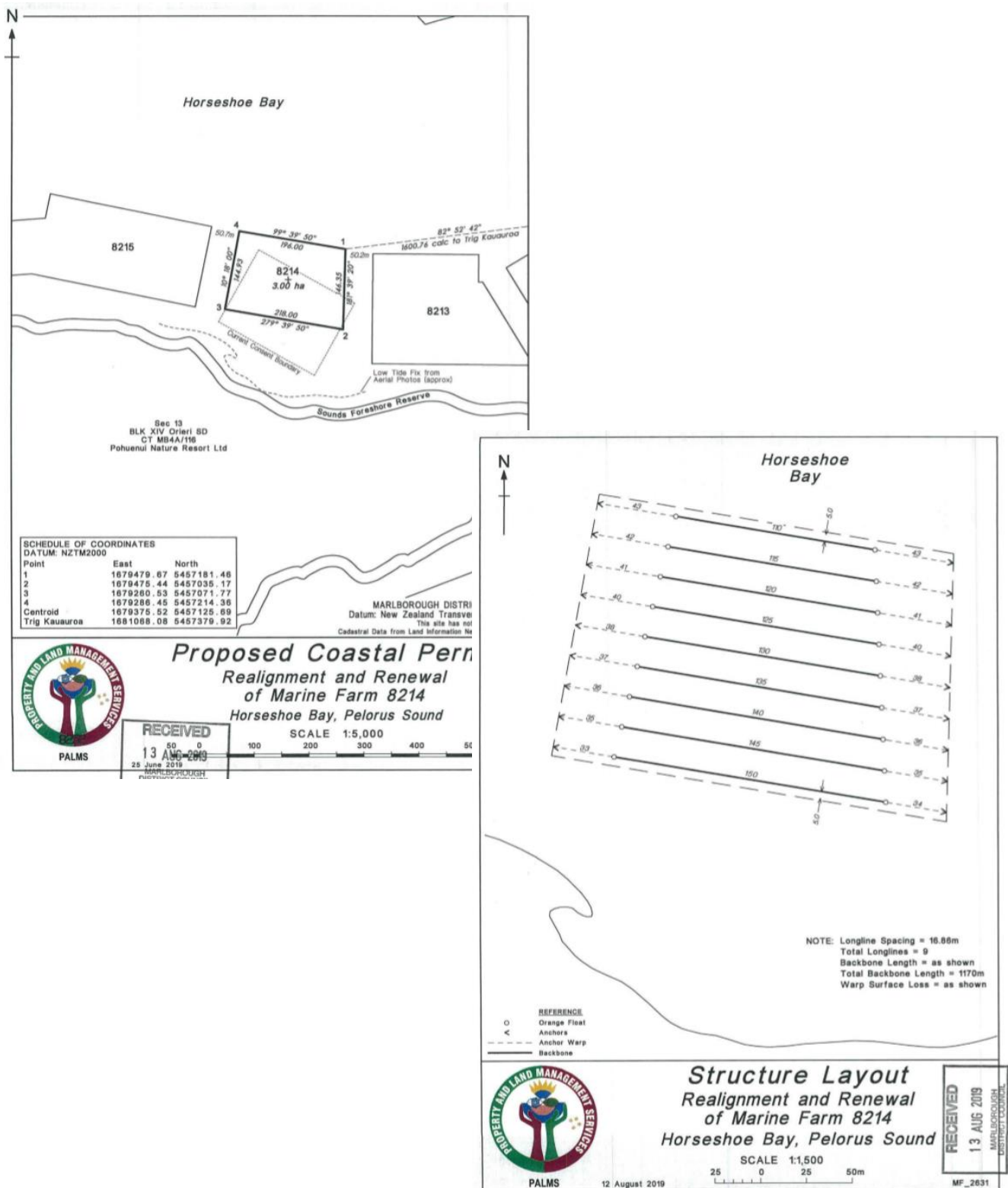


Fig. 4 Copies of site map and structures plan showing location of new space and structures authorised by coastal permit U190620 taken from Marlborough District Council coastal permit decision paper.



## APPENDIX B: ADDITIONAL STATUTORY CONTEXT

1. Section 186E(3) of the Fisheries Act<sup>13</sup> requires me, in making an aquaculture decision, to have regard to any:
  - a. information held by the Ministry for Primary Industries; and
  - b. information supplied, or submissions made, to the Director-General under section 186D(1) or (3) by:
    - i. an applicant for or holder of the coastal permit;
    - ii. any fisher whose interests may be affected;
    - iii. persons or organisations that the Director-General considers represent the classes of persons who have customary, commercial or recreational fishing interests that may be affected by the granting of the coastal permit or change to, or cancellation of, the conditions of the coastal permit; and
  - c. information that is forwarded by the regional council; and
  - d. any other information that the Director-General has requested and obtained.
2. Section 186F of the Fisheries Act specifies an order of processing that must be followed in making aquaculture decisions. But section 186F(5) allows aquaculture decisions to be made in a different order from that specified if I am satisfied that in making an aquaculture decision out of order it will not have an adverse effect on any other aquaculture decision that has been requested. I am so satisfied in this case.
3. Section 186GB(2) of the Fisheries Act says that if a pre-request aquaculture agreement has been registered under section 186ZH in relation to the areas that the coastal permit relates to, I must not have regard to the undue adverse effects on commercial fishing in respect of any stocks covered by the pre-request aquaculture agreement when having regard to the matters specified in section 186GB(1). No pre-request aquaculture agreements have been registered in relation to coastal permit U180173.
4. Section 186GB(1)(b) requires an assessment of the likely effects of the aquaculture activities on fishing of any fishery including the proportion of any fishery likely to be affected. “Fishery” is not defined either in section 186 or elsewhere in the Fisheries Act. However, “stock” is defined in section 2 to mean any fish, aquatic life, or seaweed of one or more species that are treated as a unit for the purposes of fisheries management. Parts (3) and (4) of the Fisheries Act focus on “stocks” for the purpose of setting and allocating Total Allowable Catches and managing species within the quota management system (QMS). Sections 186GB(1)(f) and (2) also refer to “stock” with specific regard to adverse effects on commercial fishing. So for the purpose of my decision under section 186E, I consider a commercial fishery is a fish stock delineated by a fisheries management area (FMA) or quota management area (QMA).
5. I consider the relevant recreational and customary fishery are as I have described in the assessment above in “*Location of the coastal areas relative to fishing area.*”

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<sup>13</sup> Section 186E(3)(a) of the Fisheries Act refers to the ‘Ministry of Fisheries’ which is now the Ministry for Primary Industries. Section 186E(3)(b) and (d) refers to the ‘chief executive’ who is now the Director-General.

6. Section 186C of the Fisheries Act does not define “cumulative effect” beyond what is provided in section 186GB(1)(f) that the effect includes any structures authorised before the introduction of any relevant stock to the QMS. For the purpose of my decision under section 186E, “cumulative effect” on commercial fishing includes the total effect of all authorised aquaculture activities within the relevant QMA or FMA. For recreational and customary fisheries, the relevant areas for considering “cumulative effects” are as I have described in the assessment above in my consideration of section 186GB(1)(a) and (f). Sections 186GB(1)(a) and (f) relate to location at proposed site in relation to where fishing occurs and the cumulative effect of aquaculture, respectively.

7. The *Fisheries (South Island Customary Fishing) Regulations 1998* (the South Island Regulations) define customary food gathering as the traditional rights confirmed by the Treaty of Waitangi and the *Treaty of Waitangi (Fisheries Claims) Settlement Act 1992*, being the taking of fish, aquatic life, or seaweed or managing of fisheries resources, for a purpose authorised by Tangata Tiaki/Kaitiaki, including koha, to the extent that such purpose is consistent with tikanga Māori and is neither commercial in any way nor for pecuniary gain or trade.

8. The South Island Regulations and regulation 50 and 51 of the Amateur Regulations provide for Tangata Tiaki/Kaitiaki to determine the customary purpose for which fish, aquatic life, or seaweed may be taken, methods used, seasons fished, size and quantity taken etc. The South Island Regulations and regulations 50 and 51 do not contemplate restrictions under the Fisheries Act on the quantity of fish taken or the methods used to take fish. Should tangata whenua fish without customary authorisations, all the recreational limits under the Amateur Regulations apply.

## APPENDIX C: COMMERCIAL FISHING REPORTING AND ANALYSIS

1. Historically, fishing catches were reporting by a set of statistical areas providing only coarse-scale information about where commercial fishing occurs. However, since 2007/08 vessels over 6 m long that have used trawl or line fishing methods have reported the start position of each fishing event by latitude and longitude to within 1 minute, which equates to around 1 nautical mile (nm). Since 2006/07, start positions for netting methods have reported to within 2 nm. Using this fine scale position data, Fisheries New Zealand has modelled and mapped fishing intensity for different clusters of fishing, characterised by a type of fishing gear and the main species caught.<sup>14</sup> This detail can be commercially sensitive and may not be publically released
2. Until recently, vessels less than 6 m long still reported by statistical areas and so the precise location of their fishing is unknown. However, based on information from Fisheries Officers and Maritime New Zealand, Fisheries New Zealand has mapped long lining, bottom trawling and set netting by vessels less than 6 m as being within enclosed bays and within 3 nm of open coasts. Knowledge about species and information from commercial fishers and fishing companies, and Fisheries Officers can also help to determine whether specific types of fishing are likely to occur in an area.
3. Fishing effort that is only reported by statistical area was apportioned evenly across the area available for fishing although some areas are likely to include more productive habitats than others. The parts of the statistical area available for fishing for each type of fishing method are defined by using all available information (including regulated closures, bathymetry, seabed substrate, and consultation with fishers) about where the method is likely to be used. Where fishing is reported to the statistical area level, there is increased uncertainty as to where fishing events have taken place within the statistical area.
4. The amount of all mapped fishing events that overlap with a proposed farm footprint is calculated. Trip landings are apportioned to the overlapping part of each event. These are summed and annually averaged for each fishery cluster and fishstock to estimate the amount of fish likely to have been landed within the footprint.
5. The amount of fishing was averaged over October fishing years 2007/08 to 2017/18. Eleven years is long enough to take into account natural variation in the abundance and distribution of fish stocks and fishing effort so that likely average future fishing is fairly represented.

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<sup>14</sup> MPI developed the CatchMapper tool to spatially model the estimated catch from landing data. This informs our assessment, and particularly, Table 3. For more information see Osborne, TA 2018 Forecasting quantity of displaced fishing Part 2: CatchMapper - Mapping EEZ catch and effort. New Zealand Aquatic Environment and Biodiversity Report No. 200. Downloaded on 4 March 2019 from <https://fs.fish.govt.nz/Page.aspx?pk=113&dk=24611>