



13 December 2016

MARINE FARMING PERMIT DECISION, SANFORD LIMITED (COASTAL PERMIT U010733), PORT UNDERWOOD

PURPOSE

1 This paper sets out my decision (as the relevant decision maker¹) on an application under section 67J of the Fisheries Act 1983 for a marine farming permit.

SUMMARY

2 I am satisfied the aquaculture activities proposed within the area of coastal permit U010733 will not have an undue adverse effect on:

- recreational fishing — for the reasons set out in this report and summarised in paragraph 42;
- customary fishing — for the reasons set out in this report and summarised in paragraph 63;
- commercial fishing — for the reasons set out in this report and summarised in paragraph 89.

3

AQUACULTURE DECISION REQUEST DETAILS

Regional Council:	Marlborough District Council (MDC)
Applicant:	Sanford Limited
Date application received:	5 April 2016
Location of application site:	Between Pipi Bay and Kaikoura Bay, Port Underwood
Size of application site:	0.58 hectare (ha) extension to marine farm licence (Li) 140
Species to be farmed:	Green-lipped mussel (<i>Perna canaliculus</i>)
Farm structures:	Surface longlines
Coastal permit:	U010733, expiring on 16 December 2024

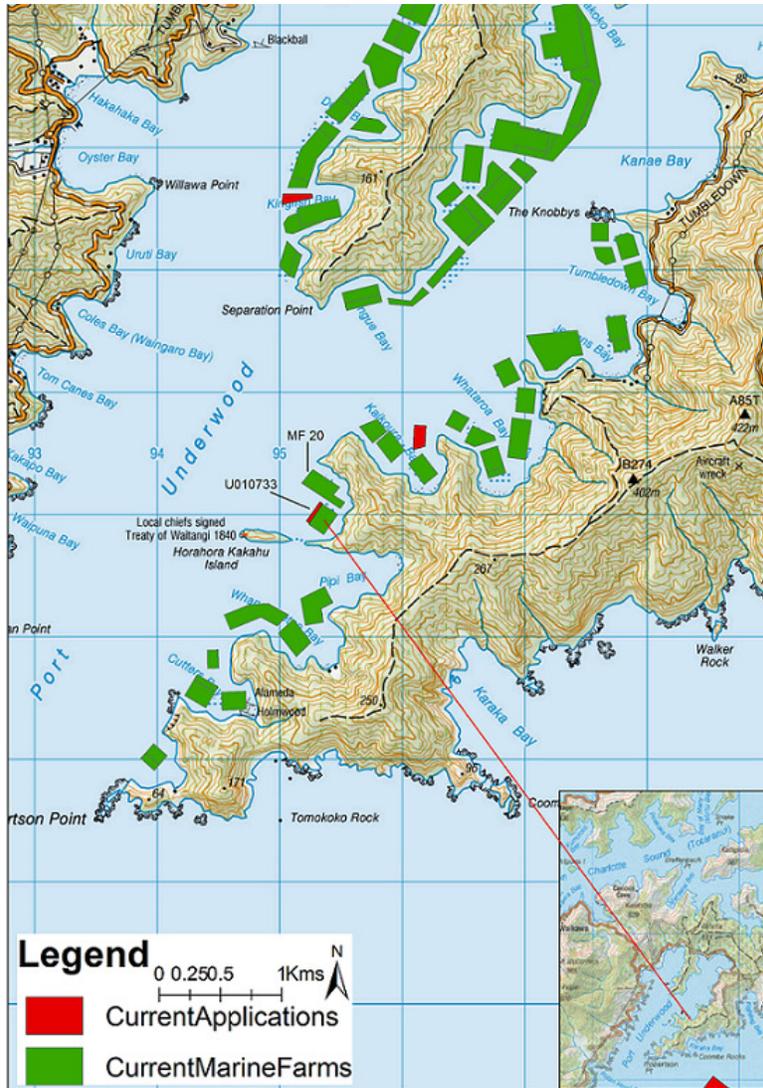
Location

4 The application site is located in an unnamed embayment north of Horahora Kakahu Island in Port Underwood and extends Li 140 to the northwest (Map 1). Li 140 is in the middle of a ribbon

¹ Acting pursuant to authority delegated by the Director-General of the Ministry for Primary Industries (**MPI**) under section 41 of the *State Sector Act 1988*.

of marine farms on the eastern side of Port Underwood. Aside from Li 140, there is one other existing farm in the embayment, marine farming permit 20 (MF 20) directly north.

5 The most shoreward part of the application site is around 150 m from the shore and the likely substrate is soft mud. A benthic report was not available for the proposed area, although Port Underwood’s general benthic outline are rocky substrates to 6-8m depth, a narrow band of silty-shell gravel and cobble banks, before a change to soft mud at approximately 9m depth (Davidson et al, 2011). An extensive benthic report was also available for a nearby bay in Port Underwood and this supported that the likely substrate at the proposed marine farming permit area was soft mud (Davidson 2012).



Map 12: Location of the application site.

² Disclaimer: Maps 1-6 and all information accompanying them are intended to be used as guides only, in conjunction with other data sources and methods, and should only be used for the purpose for which they were 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 warranty or representation in relation to the accuracy, completeness, reliability or fitness for purpose of the maps; and (b) accepts no liability whatsoever in relation to any loss, damage or other costs relating to any person’s use of the maps, including but not limited to any compilations, derivative works or modifications of the maps. The maps are subject to Crown copyright administered by Ministry for Primary Industries (MPI), and are licensed for general use under the Creative Commons Attribution 3.0 New

Structures

6 The application proposes to extend each of the 14 longlines in Li 140 by 30 m. No growing structures will be in the new area, rather there will be anchors and warps of the extended longlines. The additional longline length will be 420 (14 x 30m), with spacing of 14.6 m between the lines (Figure 1).

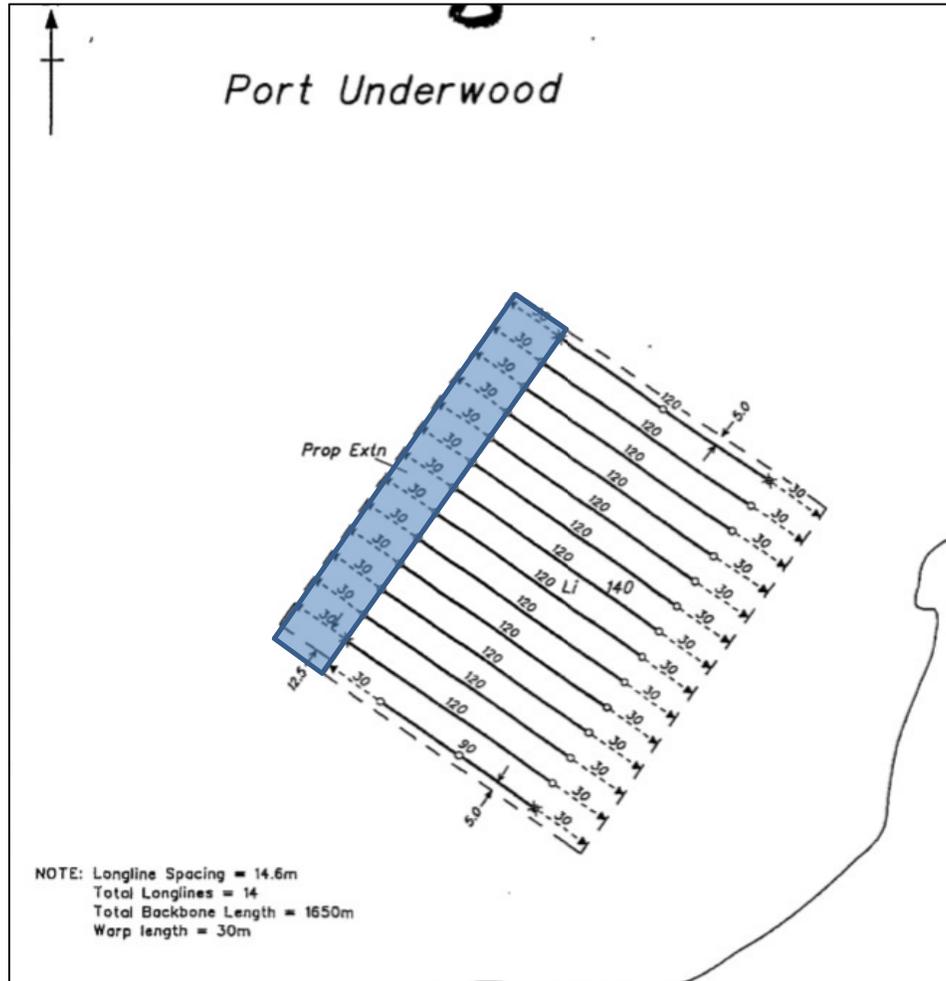


Figure 1: Proposed structures for the application site.

Input from stakeholders

MPI publicised the marine farming permit application on its website on 15 July 2016. The website publication provided an opportunity for persons and organisations whose fishing could potentially be affected by the aquaculture activities to comment. The closing date for providing information to MPI was 15 August 2016.

7 MPI did not receive any information or submissions from stakeholders in response to the application.

STATUTORY CONTEXT

8 The Aquaculture Reform (Repeals and Transitional Provisions) Act 2004 (**Transitional Act**) requires marine farming permit applications under section 67J of the Fisheries Act 1983 to continue to be processed subject to provisions of the Transitional Act.

9 Sections 26A and 26B of the Transitional Act contain matters relevant to decisions on an application under section 67J of the Fisheries Act 1983. Under section 26A of the Transitional Act I must:

- (a) Grant the application if satisfied that the activities contemplated by the application would not have an undue adverse effect on fishing;
- (b) Decline the application if not satisfied that activities contemplated by the application would not have an undue adverse effect on fishing;
- (c) Defer making a decision if satisfied that the activities contemplated by the application would not have an undue adverse effect on fishing other than commercial fishing but I am not satisfied that the activities contemplated by the application would not have an undue adverse effect on commercial fishing. Deferring the decision gives the applicant time to lodge an aquaculture agreement or compensation declaration.

10 Section 26B(1) of the Transitional Act requires me, in making a decision on the application, to have regard to any:

- (a) Information held by the Ministry of Fisheries; and
- (b) Information supplied by the applicant; and
- (c) Information supplied by the fishers or other persons that information has been sought from (see the section Input from Stakeholders above); and
- (d) Other information requested and obtained from any other source.

11 Section 26B(2) of the Transitional Act specifies the only matters I must have regard to in determining whether granting the application will have an undue adverse effect on fishing. These matters are as follows:

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

- (f) 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.

12 Section 186C of the Fisheries Act 1996 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 67J of the Fisheries Act 1983, 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.

13 Section 26B(2)(b) of the Transitional Act 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. The Fisheries Act 1983 defines a “fishery” as “1 or more stocks or parts of stocks or 1 or more species of fish, aquatic life, or seaweed that can be treated as a unit for the purposes of conservation or management”. This definition is in line with the Fisheries Act 1996 definition of a “stock”. Sections 26A(8)(a)(ii) and 26B(2)(f) of the Transitional Act refer to “stock” with specific regard to adverse effects on commercial fishing.

14 For the purpose of my decision under section 67J of the Fisheries Act 1983, I consider a fishery for commercial fishing is a stock delineated by a fisheries management area (**FMA**) or quota management area (**QMA**). However, because recreational and customary fishers are not bound to restrict their fishing activity by FMA or QMA, I consider the relevant fishery for customary and recreational fishing are as I have described below in my consideration of section 26B(2)(a) of the Transitional Act —*Location of the marine farming permit area relative to fishing areas*.

15 “Cumulative effect” is not defined beyond what is provided in section 26B(2)(f) of the Transitional Act in that the effect includes any structures authorised before the introduction of any relevant stock to the quota management system (**QMS**). For the purpose of my decision under section 67J of the Fisheries Act 1983, “cumulative effect” on commercial fishing includes the total effect of all authorised aquaculture activities within the relevant QMA or FMA. For customary and recreational fisheries, the relevant areas for considering “cumulative effects” are as I have described below in my consideration of section 26B(2)(a) and (f) of the Transitional Act.

16 The *Fisheries (South Island Customary Fishing) Regulations 1999* (**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.

17 The South Island Regulations and regulation 50 and 51 of the *Fisheries (Amateur Fishing) Regulations 2013* (**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 of the Amateur regulations 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.

ASSESSMENT

18 For the purpose of making my aquaculture decision under section 67J of the Fisheries Act 1983, I have considered all relevant information before me. The following sections of this paper

provide an assessment of the effects of the aquaculture activities on recreational, customary and commercial fishing against the matters set out above.

Recreational fishing

Location of the coastal permit area relative to fishing areas

19 I consider the area of coastal permit U010733 is located where there is a relatively small amount of recreational fishing, predominantly by stationary and mobile rod/line methods, diving, and a small amount of longlining. I consider that tarakihi, gurnard, red cod, monk fish, flounder, snapper and kahawai are the main species targeted and/or caught.

20 Available information on recreational fishing activity in Port Underwood comprises:

- information provided in past relevant submissions, if any;
- information provided in the marine farm permit application;
- fishing surveys; and
- MPI information (eg, institutional knowledge).

21 No submissions on the area of coastal permit U010733 were received from recreational fishers. However, submissions from previous applications for marine farm permits or coastal permits in Port Underwood (from coastal permit U120642 in Kanae Bay) suggest that little recreational fishing occurs in the coastal permit area.

22 Results from the most recent recreational fishing aerial survey of the Marlborough Sounds also suggest there is a relatively low amount of recreational fishing at the area of coastal permit U010733 (Davies, et. al., 2008). This recreational fishing survey, in 2006, identified the methods used, and species targeted and caught within zones in the Marlborough Sounds. Of the fishing trips diarised in the survey, 4.5% occurred in the survey zone containing Port Underwood. This fishing was concentrated at the entrance to Port Underwood, away from the area of coastal permit U010733 (Map 2).



Map 2: Aerial survey results of 2006 recreational fishing intensity (vessels per sq. km). The red mark indicates the approximate location of the application site.

24 Table 1 below summaries my assessment of the main methods used, and species caught and targeted in the area of coastal permit U010733 based on the recreational fishing survey, submissions, and benthic reports by Davidson et al. (2011) and Davidson (2012). As shown, I consider that mobile rod/line methods, diving and a small amount of longlining could be used and that tarakihi, gurnard, red cod, monk fish, flounder, snapper and kahawai are the main species targeted and caught.

Table 1: Recreational fishing methods used and species caught and targeted at the area of coastal permit U010733 based on the available information.

	Davey <i>et al.</i> (2008) results for the survey zone encompassing Port Underwood	Submissions	Other information	My assessment
Methods used	Rod/line from private boat (44% of trips), diving from private boat (21% of trips), drag netting (16% of trips), hand gathering and potting (5% of trips), rod/line from charter vessel, rod/line and diving from shore (<3% of trips).	In submissions on previous applications in the area the main methods cited are line fishing from a private boat, hand gathering and long lining from shore and private boat.	No species that are typically taken by dredging were observed in a nearby similar bay by Davidson (2012). Set netting is prohibited to 4 nm offshore. The site is too deep for hand gathering or drag netting.	Stationary and mobile rod/line methods and diving are the most commonly used methods at the site. A small amount of longlining may also occur. Shore-based fishing (eg, by rod/line, drag netting or flatfish spearing) does not occur in the area of coastal permit U010733.
Species caught (top 10)	Mussels (352), blue cod (95), oysters (70), scallops (50), tarakihi (46), kahawai (39), hapuka (38), butterfish (36), paua (28).	Previous submissions note blue cod, kahawai, red cod, tarakihi and kingfish, mussels, pipis, cockles, crabs, crayfish, moki, monk fish, snapper and gurnard as species caught in the eastern arm of Port Underwood.	The coastal permit area is too deep for species taken by hand gathering. The coastal permit area is likely to be too shallow for fishing for hapuku. Of the caught species reported by Davey <i>et al.</i> (2008) it is unlikely that blue cod, butterfish, moki or paua are found over the mud and small amount of algae substrate at the coastal permit area.	Tarakihi, gurnard, red cod, monk fish, snapper and kahawai are the most commonly caught species in the coastal permit area.
Species targeted (top 10)	Blue cod (31), lobster (22), butterfish (17), tarakihi (16), hapuka (14), blue moki (11), flounder (7), mussels (8), snapper (6), kahawai (7).	As above.	Of the target species reported by Davey <i>et al.</i> (2008) it is unlikely that blue cod, lobster, butterfish or blue moki are found over the mud and small amount of algae substrate at the coastal permit area.	Tarakihi, gurnard, red cod, monk fish, flounder, snapper and kahawai are the most commonly targeted species in the coastal permit area.

23 As shown, I consider that mobile rod/line methods, diving and a small amount of longlining could be used and that tarakihi, gurnard, red cod, monk fish, flounder, snapper and kahawai are the main species targeted and caught.

Exclusion of fishing

28 I consider the aquaculture activities proposed for the area of coastal permit U010733 will exclude some of the recreational fishing that may occur in the area.

29 Of the recreational fishing likely to occur in the area of coastal permit U010733 it is likely that trolling, longlining and drift fishing would be excluded. Anecdotal information from recreational fishers³ suggests that spaces between longlines of mussel farms in the Marlborough Sounds are too narrow for longlining and trolling without risk of entanglement. I also consider that drift fishing is unlikely to occur within marine farms because of the risk of entanglement.

30 However, it is common for fishers to fish by rod/line within mussel farms, so it is possible anchored fishing could continue between the proposed structures. I do not consider that diving would be excluded from the site.

Availability of other fishing areas

31 I consider there are other areas available for recreational fishing in Port Underwood and the wider Marlborough Sounds.

32 The Marlborough Sounds region is subject to area closures and various species and method restrictions, particularly for set netting and longlining⁴. These restrictions limit the availability of alternative recreational fishing areas outside of Port Underwood. However, I consider alternative areas in Port Underwood and elsewhere in the Marlborough Sounds could absorb fishing by most fishers who fish the area of coastal permit U010733 because:

- the mud, clay and silt substrates expected beneath the site are widespread in the Marlborough Sounds and no information suggests the site offers fishing opportunities (eg, habitat, species, methods) specific to it;
- the same methods as those used at the site could be used elsewhere in Port Underwood and most other parts of the Marlborough Sounds; and
- there are sufficient alternative areas, particularly for rod/line fishing which can occur amongst mussel farms.

Increased cost of fishing

33 I consider the aquaculture activities proposed for the area of coastal permit U010733 will result in a minimal, if any, increase in the cost of recreational fishing.

34 Based on the available information, I consider there is a high likelihood that any recreational fishing excluded from the site could be carried out nearby with minimal additional cost, or that most species targeted at the site can be taken using alternative fishing methods.

³ FMA 7 Recreational Fishing Forum, 27 May 2013.

⁴ The Amateur Regulations, *Marine Reserves Act 1971* and the *Submarine Cables and Pipelines Protection Act 1996*.

Likely effect on fishing

35 I consider the likely effect on recreational fishing from the aquaculture activities proposed in the area of coastal permit U010733 will be small.

36 There is no quantitative data available on recreational catch taken from the coastal permit area, Port Underwood or the Marlborough Sounds. 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 make an assessment of the effect of the proposed aquaculture activities on recreational fishing based on qualitative information.

37 Overall, I consider the effect on recreational fishing from the proposed aquaculture activities will be small because:

- not all recreational fishing methods would be excluded from the site;
- alternative areas within Port Underwood and the wider Marlborough Sounds could absorb the recreational fishing displaced from the site.

Cumulative effects

38 I consider the effects of the aquaculture activities proposed for the area of coastal permit U010733, added to the effects of existing aquaculture in the Marlborough Sounds, will not have an undue adverse effect on recreational fishing.

39 There is no quantitative catch data available to assess the cumulative effects of authorised aquaculture on recreational fishing catch. As noted, recreational fishers are not required to report catch or fishing locations. MPI can therefore only make an assessment about cumulative effects on recreational fishing based on the amount of aquaculture already authorised in the relevant recreational fishery and the likely importance of the coastal permit area for fishing.

40 I acknowledge there is already a large amount (approximately 3,700 ha) of authorised aquaculture space in the Marlborough Sounds. Approximately 200 ha of this space is in Port Underwood. However, overall I consider the authorised space has not had an undue adverse effect on recreational fishing. This is because some fishing (eg, anchored rod and line fishing) can occur within the existing farms and not all the authorised aquaculture space is located in popular fishing areas.

41 As noted, I consider the adverse effects of the aquaculture activities proposed for the area of coastal permit U010733 on recreational fishing will be small. Taking into account the effects of the existing authorised aquaculture areas, I consider the additional effects from the aquaculture activities proposed for the coastal permit area will not cause the cumulative effect on recreational fishing to become undue.

Conclusion on effects on recreational fishing

42 I am satisfied the aquaculture activities proposed within the area of coastal permit U010733 will not have an undue adverse effect on recreational fishing because:

- anchored rod/line fishing could still be used in the area;
- there are other recreational fishing areas available in Port Underwood and the wider Marlborough Sounds;
- occupation of the coastal permit area will result in a minimal, if any, increase in the cost of recreational fishing; and

- the additional adverse effect of occupation of the coastal permit area on recreational fishing is only small and will not cause the cumulative effect on recreational fishing to become undue.

Customary fishing

The location of the coastal permit area relative to fishing areas

43 I consider the area of coastal permit U010733 is located where there could be a small amount of customary fishing for rig, kahawai, flatfish and tarakihi, most probably by stationary and mobile rod/line methods, longlining and perhaps a small amount of diving.

44 I consider that at least the eight iwi at the top of the South Island may have customary fishing interests in the coastal permit area.⁵ While there are no existing customary management areas in the Marlborough Sounds (eg, taiapure-local fishery or mātaītai reserves), the eight iwi have jointly notified their Tangata Tiaki/Kaitiaki for an area/rohe moana that encompasses the coastal permit area. Although, I note the notification is in dispute.⁶

45 Available information on customary fishing is primarily qualitative information from submissions and quantitative catch information from customary authorisations. However, there is limited information on customary catch at the scale of small marine farms. Fishing locations for customary authorisations only need to be reported at the FMA or QMA scale, although more specific sites are sometimes identified. Fishing methods are not reported. Furthermore, customary authorisations issued under regulations 50 and 51 of the Amateur Regulations do not need to be routinely reported.

46 MPI has not received any submissions on customary fishing methods or species taken at any locations near the coastal permit area. However, from January 2009 to September 2015, customary authorisations were issued for Port Underwood. In the Port Underwood authorisations, blue cod, paua, rock lobster, scallops, rig, kina, butterfish, blue moki, tarakihi, kahawai, flatfish, scallops, hapuku and Pacific oyster were the species collected.

47 Table 2 below summarises my assessment of the main methods used and species caught and targeted by customary fishers in the area of coastal permit U010733. The information is based on submissions, customary authorisations, the benthic survey (Davidson, 2012) of a nearby similar site, the ecological survey of the Marlborough Sounds (Davidson 2011) and other information.

⁵ The eight iwi, collectively known as Te Tau Ihu o Te Waka o Maui (**Te Tau Ihu Iwi**), include those recently settled with a deed of agreement to be included in the definition of tangata whenua in regulation 2 of the Fisheries (South Island Customary Fishing) Regulations 1999: the whānau, hapu or iwi that hold manawhenua manamoana over a particular area and are represented by 1. Ngati Apa ki Te Ra Ro Trust; or 2. Ngati Koata Iwi Trust; or 3. Ngati Tama ki Te Waipounamu Trust; or 4. Te Atiawa o Te Waka a Maui trust; or 5. Te runanga o Ngati kuia Trust; or 6. Te Runanga o Ngati Rarua; or 7. Te Runanga a Rangitane o Wairau; and 8. Te Runanga o Toa Rangatira Inc.

⁶ Because the notification is in dispute, customary authorisations for the top of the South Island are issued under regulations 50 and 51 of the Amateur Regulations.

Table 2: Customary fishing methods used and species caught or targeted at the area of coastal permit U010733 based on submissions, customary authorisations, the benthic surveys and other information.

	Source of information			
	Submissions	Customary authorisations	Other information	My assessment
Methods used	No submissions	Species included in customary authorisations include those typically gathered by diving and hand gathering.	<p>No species that are typically taken by hand gathering were observed in a benthic survey of a nearby marine farm (Davidson, 2012).</p> <p>Stationary and mobile rod/line methods, drag netting, diving and longlining are the most common recreational fishing methods used at the site, and customary fishers may also use these methods.</p>	Stationary and mobile rod/line methods, diving and longlining are the most commonly used methods at the site.
Species caught or targeted	No submissions	Paua, rock lobster, kina, butterfish, blue moki, blue cod, rig, tarakihi, kahawai, flatfish, scallops.	<p>It is unlikely that paua, blue cod, rock lobster, butterfish, kina and blue moki are found over the reef-free and sporadic algae substrate at the coastal permit area.</p> <p>A benthic survey in a similar region of Port Underwood by (Davidson, 2012) and the Marlborough Sounds benthic survey (Davidson, 2011) suggests the area of coastal permit U010733 is unlikely to contain habitat to support the shellfish species listed as taken under customary authorisations.</p>	Tarakihi, kahawai, flatfish and rig could be taken by customary fishers in the coastal permit area. It is unlikely that there is much customary fishing in the coastal permit area.

Exclusion of fishing

48 I consider the aquaculture activities proposed for the area of coastal permit U010733 will exclude some of the customary fishing that may occur in the area.

49 Of the customary fishing methods likely to occur in the coastal permit area, it is likely that longlining, set netting, trolling and drift fishing would be excluded. As noted, anecdotal information from recreational fishers suggests that spaces between longlines of mussel farms in the Marlborough Sounds are too narrow for set netting, longlining and trolling without risk of entanglement. I therefore consider use of these methods by customary fishers would also be prevented. As noted, I also consider that drift fishing is unlikely to occur within marine farms because of the risk of entanglement.

50 I do not consider that stationary rod/line fishing or diving by customary fishers would be excluded from the area.

Availability of other fishing areas

51 I consider there are alternative areas for customary fishing in Port Underwood and the wider Marlborough Sounds.

52 Apart from the Long Island Marine Reserve and Fighting Bay, all of the Marlborough Sounds is available for customary fishing under regulations 50 and 51 of the Amateur Regulations.⁷ A large number of alternative areas are therefore available for customary fishing that may be displaced from the area of coastal permit U010733.

53 I also consider there are alternative areas in Port Underwood and the wider Marlborough Sounds for customary fishers because:

- the mud, silt and clay substrate beneath the site is widespread in the Marlborough Sounds and no information suggests the site offers fishing opportunities (eg, habitat, species, methods) specific to it;
- the same methods as those used at the coastal permit area could be used elsewhere in Port Underwood or most other parts of the Marlborough Sounds;
- there are sufficient alternative areas, particularly for rod/line fishing which can occur amongst mussel farms; and
- the amount of fishing displaced is likely to be relatively small.

Increased cost of fishing

54 I consider the aquaculture activities proposed for the area of coastal permit U010733 will result in minimal, if any, increase in the cost of customary fishing.

55 Based on the available information, I consider that any customary fishing displaced from the coastal permit area can be carried out nearby with minimal additional cost, or that most species targeted in the coastal permit area can be taken using alternative fishing methods.

Likely effect on fishing

56 I consider the likely effect on customary fishing from the aquaculture activities proposed in the area of coastal permit U010733 will be relatively small.

57 As noted, there is little available quantitative data on customary catch taken from the coastal permit area. MPI is therefore unable to estimate an average annual customary catch or proportion of

⁷ *The Marine Reserves Act 1971 and the Submarine Cables and Pipelines Protection Act 1996.*

customary catch likely to be affected by the proposed aquaculture activities. Rather, MPI can only make an assessment of the effect of the proposed aquaculture activities on customary fishing based on qualitative information.

58 Overall, I consider the effect on customary fishing from the proposed aquaculture activities will be relatively small because:

- not all customary fishing methods would be excluded from the site;
- the mud, silt and clay substrate beneath the site is widespread in the Marlborough Sounds and no information suggests the site offers fishing opportunities (eg, habitat, species, methods) specific to it; and
- alternative areas within Port Underwood and the wider Marlborough Sounds could absorb the customary fishing displaced from the site.

Cumulative effects

59 I consider the effects of the aquaculture activities proposed for the area of coastal permit U010733, added to the effects of existing aquaculture in the Marlborough Sounds, will not have an undue adverse effect on customary fishing.

60 There is no quantitative catch data available to MPI to assess the cumulative effect of authorised aquaculture activities on customary fishing. As noted, site-specific fishing locations are not typically reported with customary authorisations. Therefore, MPI can only make an assessment of the cumulative effect of the proposed aquaculture activities on customary fishing based on the likely importance of the application site for fishing and the amount of aquaculture activities already authorised in the relevant customary fishery.

61 As noted, there are approximately 3,700 ha of authorised aquaculture space in the Marlborough Sounds, around 203 ha of which is in Port Underwood. I consider the authorised aquaculture space has had some effect on customary fishing. However, I do not consider that the effect is undue because some customary fishing (eg, anchored rod/line fishing) can still occur within marine farms and it is unlikely all the farms are located in popular customary fishing areas.

62 As noted, I consider the adverse effects of the aquaculture activities proposed for the area of coastal permit U010733 on customary fishing will be small. Subsequently, taking into account the effects of the existing authorised aquaculture areas, I consider the additional effects from the aquaculture activities proposed for the area of coastal permit U010733 will not cause the cumulative effect on customary fishing to become undue.

Conclusion on effects on customary fishing

63 I am satisfied the aquaculture activities proposed within the area of coastal permit U010733 will not have an undue adverse effect on customary fishing because:

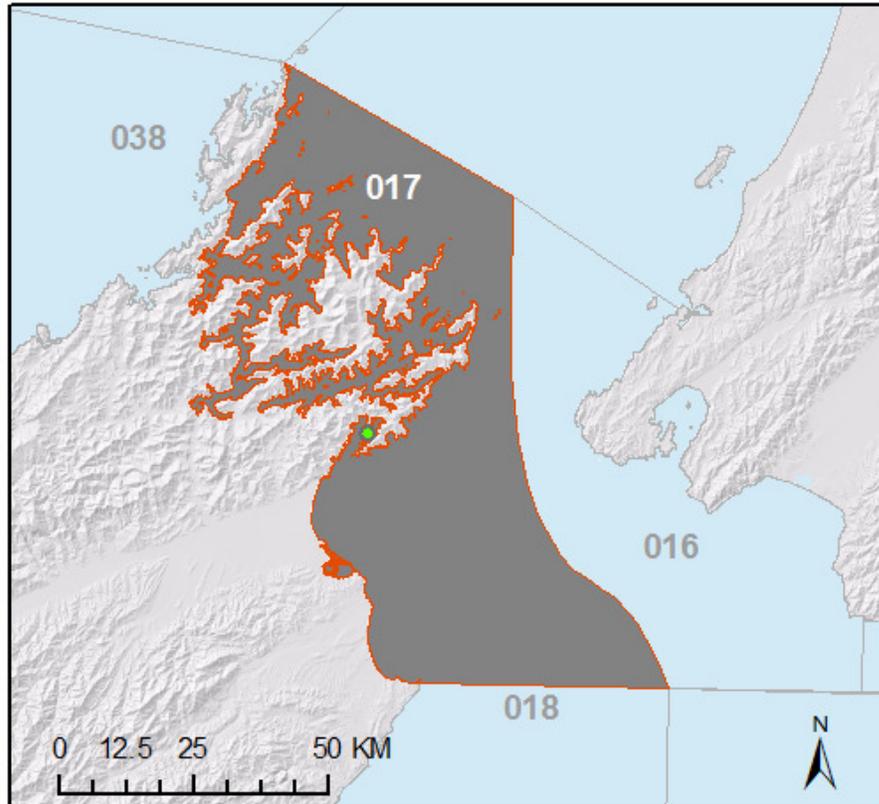
- anchored rod/line fishing and diving could still occur in the area;
- occupation of the coastal permit area will result in a minimal, if any, increase in the cost of customary fishing; and
- the additional adverse effect of the coastal permit area on customary fishing is only small and will not cause the cumulative effect on customary fishing to become undue.

Commercial fishing

The location of the coastal permit area relative to fishing areas

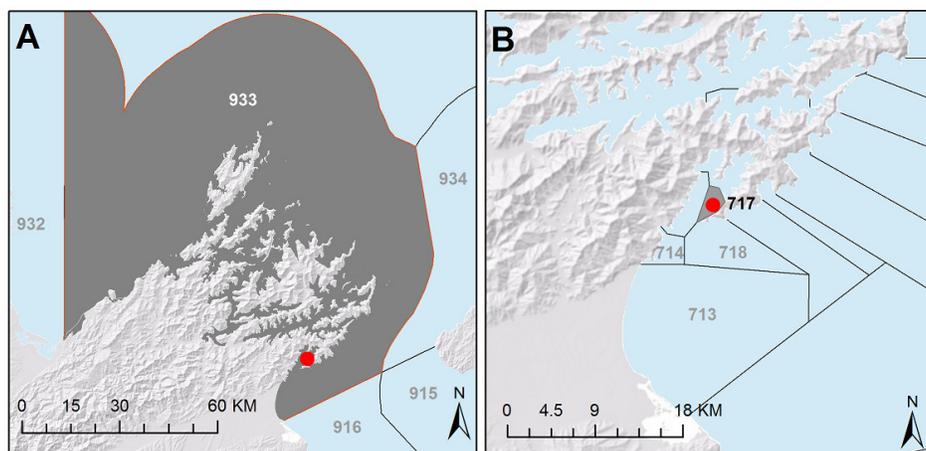
64 I consider the area of coastal permit U010733 is located where there is little commercial fishing.

65 Historically, most commercial fishing has been reported by statistical area. The area of coastal permit U010733 is located in general statistical area 017 (SA017), which extends from d'Urville Island to Cape Campbell (4,149 km²) (Map 3).



Map 3: General statistical area SA017. The green circle marks the approximate location of coastal permit area U010733.

67 Rock lobster, paua, oysters and scallops are reported by species-specific statistical areas rather than by general statistical area. The area of coastal permit U010733 is not within scallop or oyster statistical areas, but is within rock lobster statistical area 933 and paua statistical area P716 (Map 4).



Map 4: Species-specific statistical areas that encompass the area of coastal permit U010733 (approximate location as red circle). A – Rock lobster statistical area 933. B – Paua statistical area P717.

68 Reporting by statistical area only provides coarse-scale information about where commercial fishing occurs. However, since 2007/2008 vessels over 6 m long that have used trawl or line fishing methods⁸ have had to report 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 netting⁹ methods have had to report to within 2 nm¹⁰. Using this fine scale position data, MPI has modelled and mapped fishing intensity for different segments of fishing, characterised by a type of fishing gear and the main species caught.

69 The location of fishing by vessels less than 6 m long within SA017 is unknown. However, based on information from fisheries officers and Maritime New Zealand, MPI 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. The fishing by vessels less than 6 m is included in the maps of fine scale position data which is the best information available from fisheries statistics. Although, knowledge about species and information from commercial fishers can also help to determine whether specific types of fishing are likely to occur in an area.

70 Table 3 below lists the main fishery segments known to occur in SA017 and summarises my assessment of which fishery segments are likely to overlap the area of coastal permit U010733. Maps 5 and 6 below show the annual average fishing effort per ha (for fishing years 2007/08-2011/12) for overlapping fishery segments with fishing reported by latitude and longitude and by statistical area.

71 Table 3 also gives relative amounts of fishing that report by start position. The higher the proportion of vessels reporting by start position, the greater confidence in the location of fishing as depicted in Maps 5 and 6. As noted in Table 3, the area of coastal permit U010733 is located where Danish seining is prohibited¹¹ and overlaps some areas where set netting is prohibited¹².

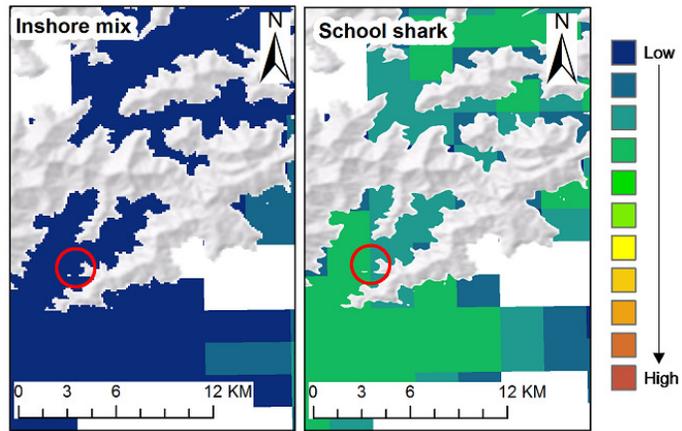
⁸ Bottom long lining, surface long lining or trot lines.

⁹ Set-netting or drift-netting.

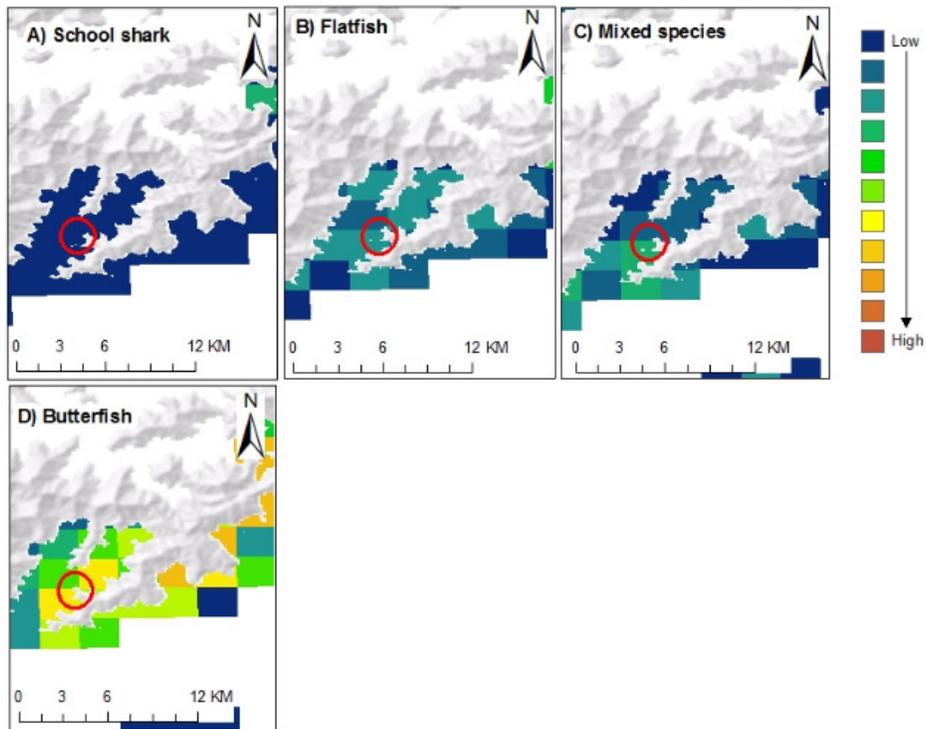
¹⁰ *Fisheries (Reporting) Regulations 2001.*

¹¹ *Fisheries (Commercial Fishing) Regulations 2001.*

¹² *Fisheries (Challenger Area Commercial Fishing) Regulations 1986.*



Map 5: Line fishery segments reported by latitude and longitude and statistical area that overlap the area of coastal permit U010733 (approximate location marked by red circle).⁹



Map 6: Trawl fishery segments reported by latitude and longitude and statistical area that overlap the area of coastal permit U010733 (approximate location marked by red circle).¹³

¹³ Hillshade imagery produced by Geographx. Sourced from www.koordinates.com under CC-By. <http://creativecommons.org/licenses/by/3.0/nz/>

Table 3: Fishery segments that are included in the commercial fishing assessment: Summary of the main fishery segments, defined by fishing method and main fishstock caught or fishing depth range, in relevant statistical areas from 2007/08 to 2011/12.

Fishery segment (Main fishstock or depth range and main fishing method) ¹⁴	Statistical area	% of fine scale fishing events	Average annual no. fishing days ¹⁵	% of main fishstock caught in statistical area	Included in the proposed farm assessment?	Rationale for excluding a fishery from proposed farm assessment ¹⁶
Ghost shark (GSH7), Trawl	017	99%	214	57%	Yes	
Inshore Mix <80m depth, Trawl	017	98%	204	N/A	Yes	
Red Cod (RCO7), Trawl	017	100%	176	18%	Yes	
School shark (SCH7), Long Lining	017	23%	95	14%	Yes	
Gurnard (GUR7), Trawl	017	99%	62	8%	Yes	
Flatfish (FLA7), Trawl	017	99%	68	6%	Yes	
Sea cucumber (SCC7A), Diving	017	0%	33	90%	Yes	
Mixed fishery, Long Lining	017	82%	17	N/A	Yes	
Other species, Diving	017	0%	13	N/A	Yes	
Mixed fishery, Hand Lining	017	0%	10	N/A	Yes	
Rock Lobster (CRA5), Lobster Pot	933	0%	731	14%	No	Rock lobsters concentrate in areas of rocky reef, although they may move across an open sandy bottom at certain times of the year. It is unlikely there is any rocky reef in the coastal permit area.
Hoki (HOK1), Trawl	017	100%	421	22%	No	This type of fishing is unlikely to occur in the coastal permit area as no fine scale trawl events were recorded in the vicinity of the site.
Ghost shark (GSH7), Trawl	017	99%	214	57%	No	This type of fishing is unlikely to occur in the coastal permit area as no fine scale trawl events were recorded in the vicinity of the site.
Sea Urchin (SUR7A), Diving	017	0%	209	84%	No	This type of fishing is unlikely to be affected. Kina are found on rock substrate. There is no rock substrate in the coastal permit area.
Blue cod (BCO7), Cod Pot	017	0%	134	40%	No	Blue cod potting is unlikely to be affected as fishers are unlikely to set pots over soft substrate.

¹⁴ Main fishstock refers to the species most often caught by the relevant method, it does not include all species taken by that method.

¹⁵ Excludes segments with less than 10 days fishing per year.

¹⁶ Unless otherwise stated, fishing is permitted and MPI has no information to indicate it does not occur in the vicinity of the coastal permit areas.

Fishery segment (Main fishstock or depth range and main fishing method)	Statistical area	% of fine scale fishing events	Average annual no. fishing days	% of main fishstock caught in statistical area	Included in the proposed farm assessment?	Rationale for excluding a fishery from proposed farm assessment
Hapuku and Bass (HPB7), Long Lining	017	52%	132	32%	No	Hapuku and bass are typically targeted in depths greater than those of the coastal permit area
Spiny Dogfish (SPD7), Trawl	017	99%	81	24%	No	This type of fishing is unlikely to occur in the coastal permit area as no fine scale trawl events were recorded in the vicinity of the site.
Barracouta (BAR7), Trawl	017	99%	62	2%	No	This type of fishing is unlikely to occur in the coastal permit area as no fine scale trawl events were recorded in the vicinity of the site.
Snapper (SNA7), Trawl	017	98%	17	10%	No	This type of fishing is unlikely to occur in the coastal permit area as no fine scale trawl events were recorded in the vicinity of the site
Tarakihi (TAR7), Trawl	017	100%	54	17%	No	This type of fishing is unlikely to occur in the coastal permit area as no fine scale trawl events were recorded in the vicinity of the site.
Blue cod (BCO7), Hand Lining	017	0%	36	40%	No	Hand lining for blue cod is unlikely in the coastal permit area as fishers are unlikely to fish over soft substrate.
Surf clams, Dredge (PDO7)	017	0%	34	0%	No	Tuatua are generally found in sandy intertidal zones. The coastal permit area does not overlap this substrate.
Other species, Potting	017	0%	19	N/A	No	It is likely these species are bycatch from rock lobster or blue cod potting. Rock lobster and blue cod pots are unlikely to be set over soft substrate.
Other species, Dredging	017	0%	18	N/A	No	This type of fishing is likely to be bycatch from scallop dredging and is unlikely to occur in the coastal permit area.
Other species, Potting	017	0%	19	N/A	No	It is likely these species are bycatch from rock lobster or blue cod potting. Rock lobster and blue cod pots are unlikely to be set over soft substrate.
Mixed fishery, Beach Seine	017	0%	13	N/A	No	The coastal permit area is too deep for this fishing method and is offshore of an existing marine farm.
Scallops (SCA7), Dredge	7JJ	0%	218	47%	No	Available information suggests the coastal permit area is not in area used for commercial scallop fishing.
Blue Warehou (WAR7), Trawl	017	100%	11	6%	No	This type of fishing is unlikely to occur in the coastal permit area as no fine scale trawl events were recorded in the vicinity of the site.
Butterfish (BUT7), Set Net	017	40%	183	27%	No	A set net ban exists in the area except for butterfish within 200 m of shore. The butterfish exception overlaps a small part of the coastal permit area. However, the expected substrate suggests butterfish would not be caught at the coastal permit area and no fine scale events were recorded.
School shark (SCH7), Set Net	017	98%	15	14%	No	A set net ban exists in the area except for butterfish inshore. No fine scale events were recorded at the coastal permit area.
Flatfish (FLA7), Set Net	017	72%	155	6%	No	A set net ban exists in the area except for butterfish inshore. No fine scale events were recorded at the coastal permit area.
Mixed fishery, Set Net	017	71%	63	N/A	No	A set net ban exists in the area except for butterfish inshore. No fine scale events were recorded at the coastal permit area.

Exclusion of fishing

75 I consider the aquaculture activities proposed in the area of coastal permit U010733 will exclude only a small amount of commercial fishing.

72 For the purpose of assessing commercial fishing methods, with the exception of trawl fishing, the exclusion zone for fishing methods included in this assessment is deemed to be the coastal permit area (ie, 0.58 ha). I consider commercial set netting, longlining, hand lining and diving could occur immediately adjacent to but not within the coastal permit area.

73 However, for trawl fishing a 250 m exclusion zone was added to the coastal permit area to reflect the minimum distance commercial trawl vessels can operate from marine farm structures. Taking into account area already excluded by existing marine farms, the coastal permit area would exclude 6.48 ha from trawling.

Availability of other fishing areas

76 I consider that any commercial fishing displaced from the area of coastal permit U010733 could occur in other areas.

77 Commercial fishing closures or restrictions in the relevant QMAs or FMA7 limit the availability for alternative areas for commercial fishing.¹⁷ Few closures or restrictions in SA017 limit alternative areas for methods permitted in Port Underwood (ie, dredging, diving for taking non-fish species and trawling) but closures elsewhere in FMA7 limit areas available. Regardless, I consider alternative areas in Port Underwood and other parts of SA017 could absorb any commercial fishing displaced from the area of coastal permit U010733 because:

- the same methods as those possibly used at the coastal permit area could be used elsewhere in Port Underwood or other parts of SA017;
- the species potentially targeted by commercial fishers within the area of coastal permit U010733 are typically found over silt and clay substrate which is common throughout the rest of Port Underwood and elsewhere in SA017; and
- the area excluded to commercial fishing would be relatively small compared to the available area.

78 I recognise areas of authorised aquaculture space have reduced the availability of other commercial fishing areas over time. As noted, there are around 210ha of authorised aquaculture space in Port Underwood. In SA017 there are approximately 3,500 ha of marine farms that make up more than 33% of the 10,300 ha of aquaculture in FMA7.¹⁸ The cumulative effect of the existing aquaculture is considered further below.

Increased cost of fishing

79 I consider that the aquaculture activities proposed in the area of coastal permit U010733 will not increase the cost of commercial fishing.

80 While the coastal permit area may be located within a region used for commercial fishing, I consider that using alternative commercial fishing grounds would not result in an increase in the cost

¹⁷ The *Marine Reserves Act 1971*, *Fisheries (Challenger Area Commercial Fishing) Regulations 1986* and *Fisheries (Commercial Fishing) Regulations 2001* contain closures and restrictions that affect various species, method, time period, fishing gear, or a combination of these criteria.

¹⁸ The 3,500 ha and 10,300 ha of authorised aquaculture space includes recent aquaculture decisions that may still be in the judicial review period.

of commercial fishing. This is because the coastal permit area will only exclude a small area from commercial fishing and there are equally productive fishing grounds available nearby.

Likely effect on fishing

81 I consider the aquaculture activities proposed in the area of coastal permit U010733 will only have a small adverse effect on any commercial fishery, if any.

82 The amount of fishing effort estimated to be displaced by the activities proposed in the area of coastal permit U010733 is negligible. Approximately 6 kg of average annual catch is likely to be affected by the proposed aquaculture activities for fishing indicated as assessed Table 3. The maps of fishing intensity (effort per ha) for each fishing sector were used to calculate the average annual amounts of fishing effort that is likely to be displaced from the exclusion zones¹⁹ of the coastal permit area. Average landings per unit effort for all species caught in each fishery segment were then used to estimate the amount of fish likely to have been landed.

83 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.

84 The amount of fishing was averaged over October fishing years 2007/08 to 2014/15. Eight 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.

85 Given the small catch quantities likely to be affected by the proposed aquaculture activities, MPI has not attempted to determine the likely changes in catch rates for the displaced fishing in order to estimate the net effect on commercial fishing. This assessment is based on the worst-case scenario that all of the catch displaced from the coastal permit area would be lost from the affected fisheries and no new catch would be available from the vacated area.

Cumulative effects

86 I consider the addition to the cumulative effect on commercial fishing from the aquaculture activities proposed in the area of coastal permit U010733 is negligible.

87 Around 10,300 ha of authorised aquaculture activities in FMA7 have been previously assessed for their total cumulative effect on commercial fishing. For any fish stocks potentially affected by the area of coastal permit U010733, the cumulative effect has previously been assessed as a maximum of approximately 1.6% effect on any fishery and not undue.

88 As noted, occupation of the coastal permit area would affect approximately 6 kg of average annual catch for fishing indicated as assessed in Table 3. I consider this increase will not cause the new level of cumulative effect on any fishery to become undue.

¹⁹ The “exclusion zone” used for the methods assessed was the coastal permit area (i.e. 0.58 ha), with the exception of trawl fishing. For trawl fishing a buffer of 250 m around area of coastal permit area (6.48 ha).

Conclusion on effects on commercial fishing

89 I am satisfied the aquaculture activities proposed within the area of coastal permit U010733 will not have an undue adverse effect on commercial fishing because:

- there are alternative fishing grounds in Port Underwood, SA017, and the relevant QMAs or FMA7;
- occupation of the coastal permit area will result in a minimal, if any, increase in the cost of commercial fishing;
- effects on commercial fishing catch will only be small; and
- the additional adverse effect on commercial fishing will not cause the cumulative effect on commercial fishing for any fish stock to become undue.

Decision on mussel farming permit for Sanford Limited (coastal permit U010733), Port Underwood

90 I am satisfied – based on all relevant information available to me – the activities proposed for coastal permit area U010733 will not have an undue adverse effect on:

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

91 Accordingly, my decision is to grant a mussel farming permit.

92 The area approved under my decision is a 0.58 ha area with the following coordinates (NZTM2000):

<u>Point</u>	<u>Easting</u>	<u>Northing</u>
1	1695344.422	5424093.023
2	1695234.290	5423935.135
3	1695209.742	5423952.221
4	1695319.783	5424110.119

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



David Scranney
Manager Customary Fisheries and Spatial Allocations
Ministry for Primary Industries

Dated this 13 December 2016

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