



8 October 2015

AQUACULTURE DECISION REPORT — CLEARWATER MUSSELS LIMITED, COASTAL PERMIT U141078, SHEEP POINT, TAWHITINUI REACH, PELORUS SOUND

PURPOSE

1 This report sets out my aquaculture decision (as the relevant decision maker¹) for an aquaculture decision request made under section 114(4)(c)(ii) of the *Resource Management Act 1991* (**RMA91**). The aquaculture decision request is described below. My aquaculture decision is made under section 186E of the *Fisheries Act 1996* (**Fisheries Act**).

SUMMARY

2 I am satisfied the aquaculture activities proposed within the area of coastal permit U141078 will not have an undue adverse effect on:

- recreational fishing — for the reasons set out in this report and summarised in paragraph 43;
- customary fishing — for the reasons set out in this report and summarised in paragraph 65;
- commercial fishing — for the reasons set out in this report and summarised in paragraph 89.

AQUACULTURE DECISION REQUEST DETAILS

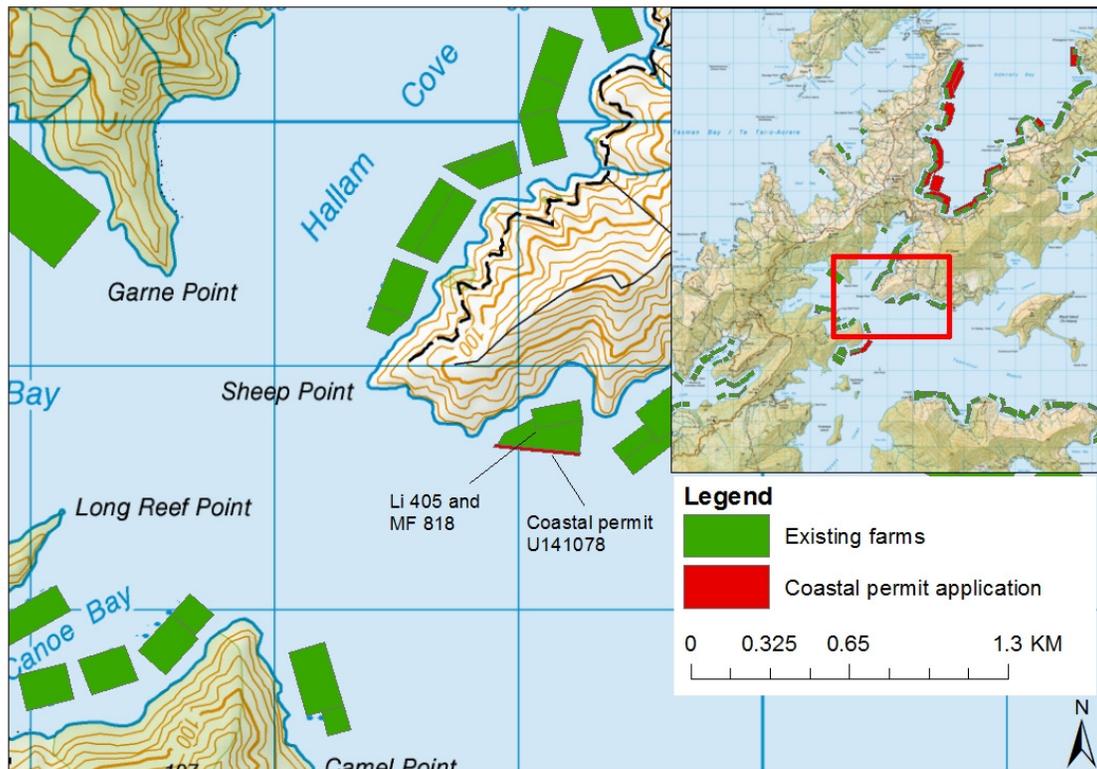
Regional Council:	Marlborough District Council (MDC)
Date of Request:	14 September 2015
Coastal Permit Applicant:	Clearwater Mussels Limited
Location of marine farm site:	Sheep Point, Tawhitinui Reach, Pelorus Sound
Size of farm:	0.527 hectares (ha) of new space, extending marine farm licence 405 (Li 405) and marine farm permit 818 (MF 818) Coastal permit U141078 encompasses the new space and the existing area of Li 405 and MF 818
Species to be farmed:	Green-lipped mussels (<i>Perna canaliculus</i>), scallops (<i>Pecten novaezelandiae</i>), blue mussels (<i>Mytilus galloprovincialis</i>), dredge oysters (<i>Tiostrea chilensis</i>) and algae (<i>Ecklonia radiata</i> , <i>Gracilaria</i> spp., <i>Pterocladia lucida</i> and <i>Undaria</i> spp.
Farm structures:	Standard marine farm longlines and anchors with droppers

¹ 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*.

Location

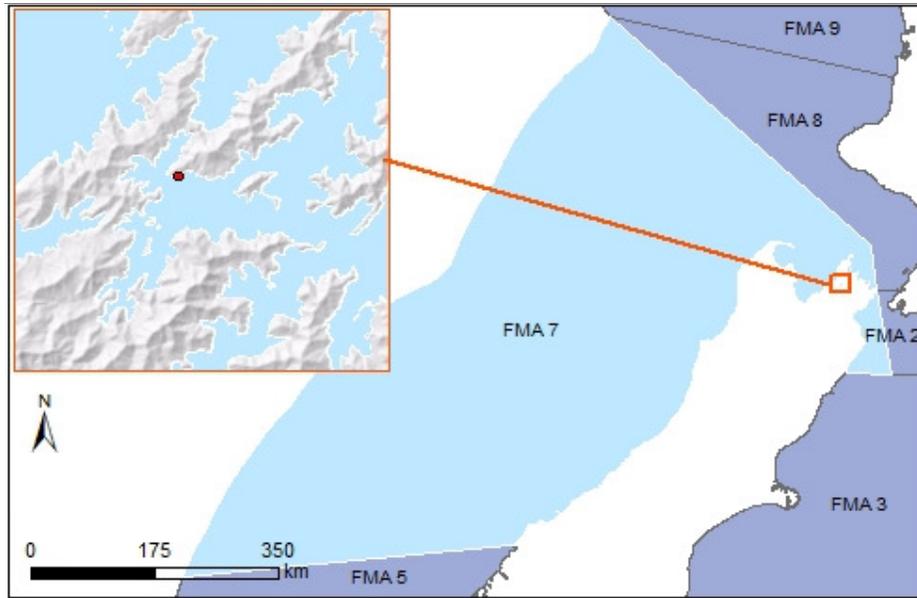
3 Coastal permit U141078 applies to an area at Sheep Point, Tawhitinui Reach, in the Marlborough Sounds (Map 1). The Marlborough Sounds are within Fisheries Management Area 7 (FMA7) (Map 2).

4 Aside from Li 405 and MF 818, the closest existing marine farm to the new area of coastal permit U141078 is the site of marine farm licence 400 (**Li 400**), marine farm permit 421 (**MF 421**) and marine farm permit 791 (**MF 791**), around 130 m to the east.



Map 12: Location of the area authorised by coastal permit U141078 at Sheep Point, Tawhitinui Reach, Marlborough Sounds (MPI, 2015).

² Disclaimer: Maps 1-7B 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 Zealand licence (<http://creativecommons.org/licenses/by/3.0/nz/>). Crown copyright ©. NZ topo data. Sourced from Land Information New Zealand under CC-By. <http://creativecommons.org/licenses/by/3.0/nz/>



Map 2: Location of the area of coastal permit U141078 (red circle) within FMA7.

5 The new area of coastal permit U141078 is around 80 m from shore at its closest point and roughly 27-32 m deep. A benthic survey by Davidson (2014) showed the substrate in the coastal permit area is predominantly silt and clay. No hard substrate (eg, reef or cobble) was observed.

Structures

6 The new area of coastal permit U141078 will contain one 247 m longline, spaced roughly 18 m from the next longline (Figure 1).

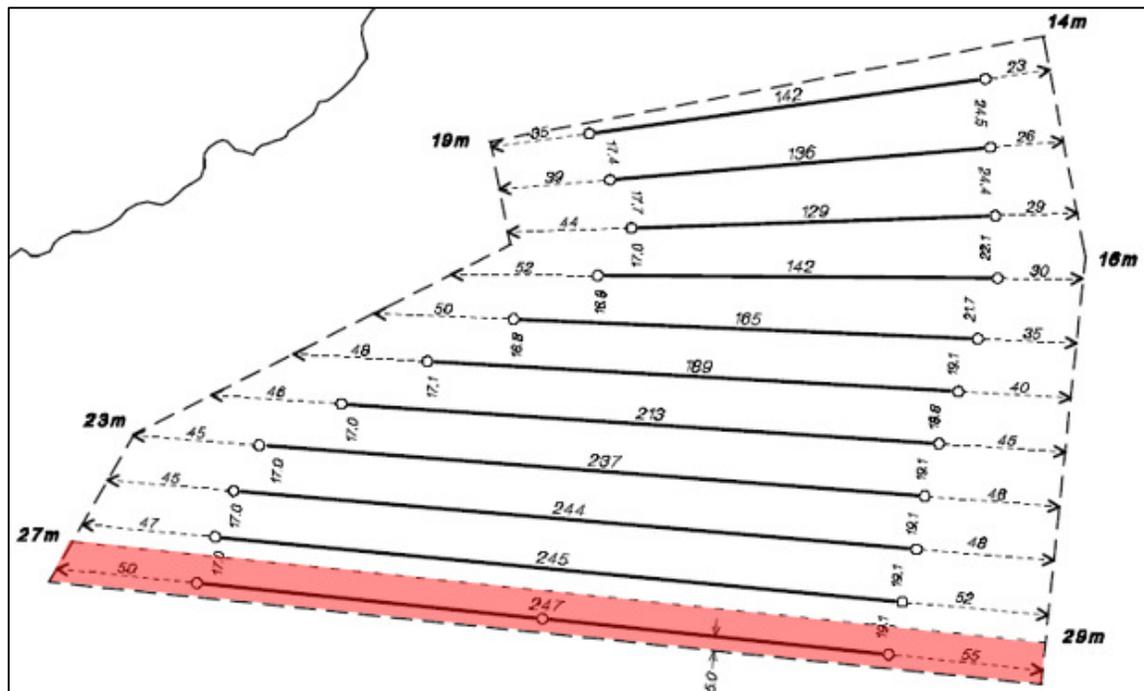


Figure 1: Structures diagram for coastal permit U141078.³ The longline within the red area is in the new area of the coastal permit.

³ Sourced from the MDC's decision on coastal permit application U141078.

Input from stakeholders

7 MPI publicised the application for coastal permit U141078 on its website on 3 March 2015. This gave persons and organisations potentially affected by the proposed aquaculture activities an opportunity to provide information on their fishing activities at the coastal permit area. The closing date for submissions to MPI was 31 March 2015. MPI did not receive any submissions.

STATUTORY CONTEXT

8 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).

9 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 fishing. 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.

10 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).

11 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.

12 Section 186E(3) of the Fisheries Act⁴ 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.

13 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

⁴ 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.

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.

14 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:

- (a) the location of the areas that the coastal permit relates to in relation to areas in which fishing is carried out;
- (b) the likely effect of the aquaculture activities in the areas that the coastal 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 areas that the coastal permit relates to will lead to the exclusion of fishing;
- (d) the extent to which fishing for a species in the areas that the coastal permit relates to can be carried out in other area;
- (e) the extent to which the occupation of the coastal marine area authorised by the coastal 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.

15 Section 186GB(2) of the Fisheries Act specifies 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 U141078.

16 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.

17 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**). However, because recreational and customary fishers are not bound to restrict their fishing activity by FMA or QMA, I consider the relevant customary and recreational fishery are as I have described in the assessment below in my consideration of section 186GB(1)(a)—*Location of the coastal areas relative to fishing area*.

18 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 customary and recreational fisheries, the relevant areas for considering “cumulative effects” are as I have described in the assessment below in my consideration of section 186GB(1)(a) and (f).

19 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.

20 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 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

21 When making my aquaculture decision under section 186E of the Fisheries Act, I have considered all relevant information before me. The following sections of this paper provide an assessment of the effects of the proposed aquaculture activities on recreational, customary and commercial fishing against the matters set out above. For the purpose of my assessment, customary fishing differs from recreational fishing if it is undertaken outside of the recreational limits provided in the Amateur Regulations and is instead authorised by a customary authorisation.

22 This assessment relates to the 0.527 ha of new marine farming space authorised by coastal permit U141078.

Recreational fishing

Location of the coastal permit area relative to fishing areas

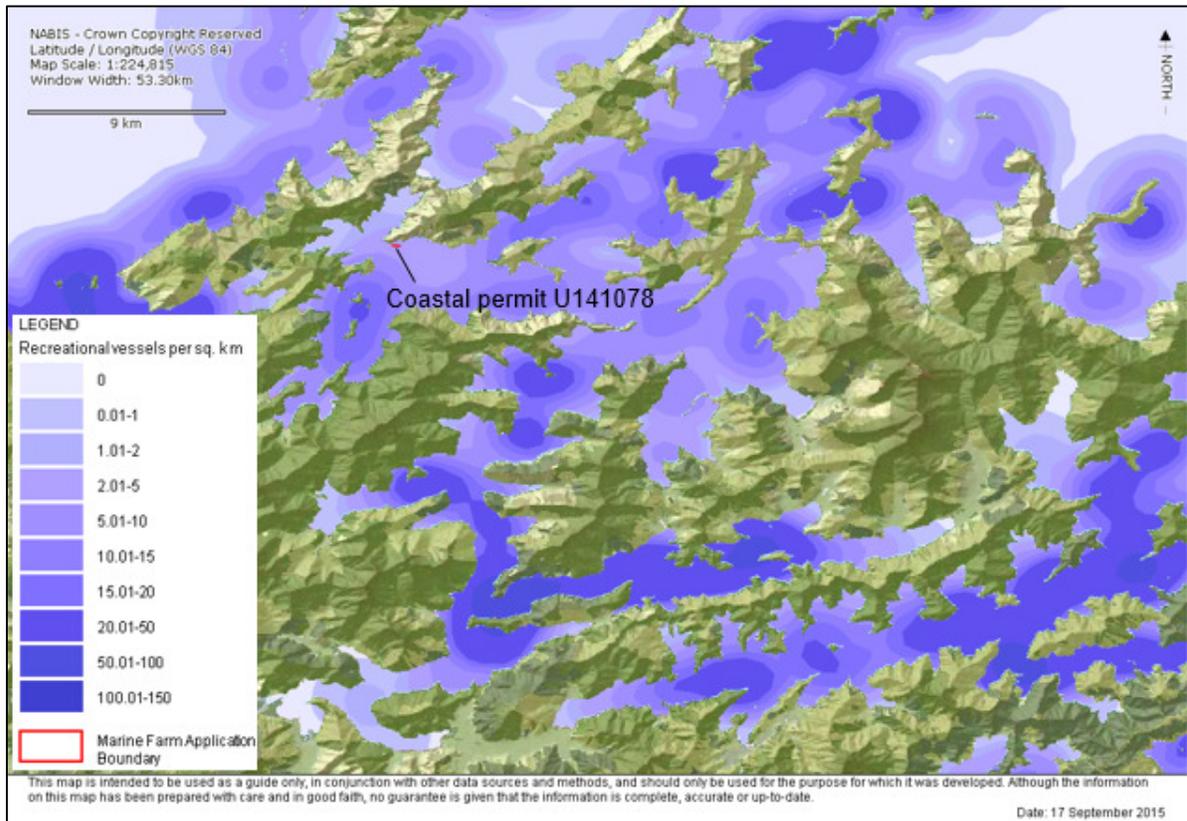
23 I consider the new area of coastal permit U141078 is located where there is likely to be a relatively small amount of recreational fishing, predominantly by stationary rod/line and longline methods, and perhaps a small amount of set netting and diving. I consider that snapper, spotty, kahawai and gurnard are the main species targeted and/or caught.

24 Available information on recreational fishing activity in Tawhitinui Reach comprises:

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

25 No submissions on the area of coastal permit U141078 were received from recreational fishers. Submissions from 2004 on MF 818 provide mixed views on the importance of the area for recreational fishing. One submission states Tawhitinui Reach has little fish life except for some small scallops well offshore and some local cod around the rocky points and on a few small reefs. Another submission states Tawhitinui Reach is a prime fishing area and is well stocked with blue cod, snapper and other species and is fished daily by many fishers.

26 Results from the most recent recreational fishing survey of the Marlborough Sounds (in 2006) suggest there is a relatively small amount of recreational fishing at the new area of coastal permit U141078 and that areas in the inner and outer reaches of Pelorus Sound are more popular (Map 3). I consider the survey results are likely to provide the best available information on relative fishing intensity at the site.



Map 3. Aerial survey results from 2006 of recreational fishing intensity (Davey et al, 2008).⁵

27 The recreational fishing survey also identifies methods used, and species targeted and caught within zones in the Marlborough Sounds. Of the sampled fishing trips, 6.4% occurred in the survey zone containing Tawhitinui Reach. Table 1 below summarises my assessment of the main methods used, and species caught and targeted in the new area of coastal permit U141078 based on the recreational fishing survey, benthic surveys (Davidson, 2014) and other information.

28 As shown, I consider that stationary rod/line and longline methods and a small amount of diving and set netting could be used, and that snapper, spotty, kahawai and gurnard are the main species targeted or caught.

⁵ Map sourced from NABIS (MPI, 2015).

Table 1: Recreational fishing methods used and species caught and targeted at the area of coastal permit U141078 based on the available information.

	Source of information			My assessment
	Davey <i>et al.</i> (2008) result for Tawhitinui Reach survey zone	Submissions	Other information	
Methods	Rod/line from private boat (80% of trips), longline from private boat (12% of trips), drag netting/beach seining (2% of trips), rod/line from charter boat (1% of trips), hand gathering, diving from private boat, set netting, flatfish spearing (each less than 1% of trips)	Submission on MF 818; drift fishing is rare due to wind	<p>The silt and clay substrate in the coastal permit area is suitable for most of the methods identified as occurring in Tawhitinui Reach by Davey <i>et al.</i> (2008)</p> <p>Depths at the site are greater than those used for drag netting/beach seining, hand gathering and flatfish spearing</p> <p>Rod and line methods include trolling, drift fishing and anchored fishing</p> <p>There is no public road access to coastline directly inshore of the coastal permit area</p> <p>The new area is seaward of existing marine farm structures</p>	<p>Stationary rod/line and longline methods are the most commonly used methods at the site. A small amount of set netting and diving may occur</p> <p>Shore-based fishing (eg, by rod/line) is not possible in the new area of coastal permit U141078</p>
Species caught	Blue cod (240), snapper (77), spotty (70), mussels (50), kahawai (30), gurnard (22), jack mackerel (21), spiny dogfish (20), flat oyster (15), barracouta (15), sea perch (7), yellow-eyed mullet (7), scallops (6), lobster (5), hapuku (3), kingfish (2), scorpion fish (2), greyboy (1)	<p>Submission on MF 818; few fish are caught but there are small scallops well offshore and some cod around rocky points and on a few small reefs</p> <p>Submission on MF 818; Tawhitinui is well stocked with blue cod, snapper and other species</p>	<p>Of the caught species reported by Davey <i>et al.</i> (2008) it is unlikely that; (a) blue cod, sea perch, lobster or scorpion fish are found over the silt and clay substrate at the coastal permit area; and (b) the new coastal permit area is deep enough for catching hapuku</p> <p>Aside from mussels, no shellfish of significant value to recreational fishers were observed by Davidson (2014)</p>	<p>Snapper and spotty are likely to be the most commonly caught species at the coastal permit area</p>
Species targeted	Blue cod (89), snapper (63), kahawai (7), gurnard (5), kingfish (2), hapuku (2), flounder (2), scallops (1), barracouta (1), blue moki (1), jack mackerel (1), greyshark (1), butterflyfish (1), mussels (1), oysters (1)	<p>Submission on MF 818; few fish are caught but there are small scallops well offshore and some cod around rocky points and on a few small reefs</p> <p>Submission on MF 818; Tawhitinui is well stocked with blue cod, snapper and other species</p>	<p>Of the target species reported by Davey <i>et al.</i> (2008) it is unlikely that; (a) blue cod, blue moki, butterflyfish or oysters are found over the silt and clay substrate at the coastal permit area; and (b) the new coastal permit area is deep enough for targeting hapuku</p> <p>Aside from mussels, no shellfish of significant value to recreational fishers were observed by Davidson (2014)</p>	<p>Snapper, kahawai and gurnard are likely to be the most commonly targeted species at the coastal permit area</p>

Exclusion of fishing

29 I consider the aquaculture activities proposed for the new area of coastal permit U141078 will exclude some of the recreational fishing methods that may be used in this area.

30 Of the recreational fishing likely to occur in the new area of coastal permit U141078 it is likely that longlining and set netting would be excluded. Anecdotal information from recreational fishers⁶ suggests that spaces between longlines of mussel farms in the Marlborough Sounds are too narrow for longlining and set netting without risk of entanglement. 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.

31 I also note that the area that would be excluded to fishers would be small (ie, 0.527 ha).

Availability of other fishing areas

32 I consider there are other areas available for recreational fishing in Tawhitinui Reach and the wider Marlborough Sounds.

33 There are Marlborough Sounds region is subject to area closures and various species and method restrictions, particularly for set netting and longlining.⁷ These restrictions limit the availability of alternative areas outside of Tawhitinui Reach for recreational fishers able to fish further afield. However, I consider alternative areas at Tawhitinui Reach and elsewhere in the Marlborough Sounds could absorb fishing by most fishers who fish the new area of coastal permit U141078 because:

- the 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 site could be used elsewhere in Tawhitinui Reach 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

34 I consider the aquaculture activities proposed for the new area of coastal permit U141078 will result in a minimal, if any, increase in the cost of recreational fishing.

35 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.

Likely effect on fishing

36 I consider the likely effect on recreational fishing from the aquaculture activities proposed in the new area of coastal permit U141078 will be small.

37 There is little quantitative data available on recreational catch taken from the new coastal permit area, Tawhitinui Reach, or the Marlborough Sounds. Recreational fishers are not required

⁶ FMA7 Recreational Fishing Forum, 27 May 2013.

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

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.

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

- the area excluded to fishers would be small;
- not all recreational fishing methods would be excluded from the site; and
- alternative areas within Tawhitinui Reach and the wider Marlborough Sounds could absorb the recreational fishing displaced from the site.

Cumulative effects

39 I consider effects from the aquaculture activities proposed for the new area of coastal permit U141078, added to the effects of existing aquaculture in the Marlborough Sounds, will not have an undue adverse effect on recreational fishing.

40 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 new coastal permit area for fishing.

41 I acknowledge there is already a large amount (approximately 3,600 ha) of authorised aquaculture space in the Marlborough Sounds. Approximately 190 ha of this authorised aquaculture space is in Tawhitinui Reach. 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.

42 As noted, I consider the adverse effects of the new area of coastal permit U141078 on recreational fishing will be small. Taking into account the effects of the existing authorised aquaculture areas, I consider the additional effects from the new coastal permit area will not cause the cumulative effect on recreational fishing to become undue.

Conclusion on effects on recreational fishing

43 I am satisfied the aquaculture activities proposed within the new area of coastal permit U141078 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 Tawhitinui Reach 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 the new 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

44 I consider the new area of coastal permit U141078 is located where there could be a small amount of customary fishing for flatfish and snapper, most probably by stationary rod/line and longline methods, and perhaps a small amount of set netting and diving.

45 I consider that at least the eight iwi at the top of the South Island may have customary fishing interests in the new coastal permit area.⁸ While there are no existing customary management areas in the Marlborough Sounds (eg, taiapure-local fishery or mātaimai reserves), the eight iwi have jointly notified their Tangata Tiaki/Kaitiaki for an area/rohe moana that encompasses the new coastal permit area. Although, I note the notification is in dispute.⁹

46 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.

47 MPI has not received any submissions on customary fishing methods or species taken at any locations near the new coastal permit area. However, from January 2009 to September 2015, customary authorisations were issued for Pelorus Sound which may include Tawhitinui Reach. In the Pelorus Sound authorisations, blue cod, paua, rock lobster, scallops, butterfish, blue moki, flatfish, snapper, hapuku and Pacific oyster were the species collected.

48 Of the species identified in the customary authorisations for Pelorus Sound, I consider it possible that flatfish and snapper could be taken by customary fishers in the new coastal permit area. I consider the new coastal permit area is likely to be too shallow for fishing for hapuku. The benthic survey (Davidson, 2014) suggests the new coastal permit area does not contain habitat (ie, cobble/hard substrate/reef and algae) for blue cod, paua, rock lobster, butterfish, blue moki or Pacific oyster. Additionally, the benthic survey suggests that scallops are not common at the site as none were observed.

49 I also consider that, based on methods used by recreational fishers, the methods most probably used by customary fishers at the new coastal permit area are stationary rod/line and longline methods, and perhaps a small amount of set netting and diving.

Exclusion of fishing

50 I consider the aquaculture activities proposed for the new area of coastal permit U141078 will exclude some of the customary fishing methods that may be used in the area.

51 Of the customary fishing methods likely to occur in the new coastal permit area it is likely that longlining and set netting would be excluded. Anecdotal information from recreational

⁸ The eight iwi, collectively known as Te Tau Ihu o Te Waka o Maui (**Te Tau Ihu Iwi**), include those defined as 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 Ngāti Apa Ki Te Waipounamu Trust; or Ngāti Koata No Rangitoto Ki Te Tonga Trust; or Ngāti Rarua Iwi Trust; or Ngāti Tama Manawhenua Ki Te Tau Ihu Trust; or Ngāti Toa Rangatira Manawhenua Ki Te Tau Ihu Trust; or Te Atiawa Manawhenua Ki Te Tau Ihu Trust; or Te Runanga A Rangitane o Wairau; or Te Runanga O Ngāti Kuia Trust.

⁹ 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.

fishers¹⁰ suggests that spaces between longlines of mussel farms in the Sounds are too narrow for set netting, drift fishing and trolling without risk of entanglement. I therefore consider use of these methods by customary fishers would also be prevented.

52 I do not consider that stationary rod/line fishing or diving would be excluded from the site.

Availability of other fishing areas

53 I consider there are some alternative areas for customary fishing in Tawhitinui Reach and the wider Marlborough Sounds.

54 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.¹¹ A large number of alternative areas are therefore available for customary fishing that may be displaced from the new area of coastal permit U141078.

55 I also consider there are alternative areas in Tawhitinui Reach and the wider Marlborough Sounds for customary fishers because:

- the 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 Tawhitinui Reach or some 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 would be relatively small.

Increased cost of fishing

56 I consider the aquaculture activities proposed for the new area of coastal permit U141078 will result in a minimal, if any, increase in the cost of customary fishing.

57 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

58 I consider the likely effect on customary fishing from the aquaculture activities proposed in the new area of coastal permit U141078 will be relatively small.

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

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

¹⁰ FMA7 Recreational Fishing Forum, 27 May 2013.

¹¹ *The Marine Reserves Act 1971* and the *Submarine Cables and Pipelines Protection Act 1996*.

- the area excluded to fishers would be small;
- only a small amount of customary fishing is likely to occur at the site; and
- alternative areas within Tawhitinui Reach and the wider Marlborough Sounds could absorb the customary fishing displaced from the new area of coastal permit U141078.

Cumulative effects

61 I consider the effects from the aquaculture activities proposed for the new area of coastal permit U141078, added to the effects of existing aquaculture in the Marlborough Sounds, will not have an undue adverse effect on customary fishing.

62 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.

63 As noted, there are approximately 3,600 ha of authorised aquaculture space in the Marlborough Sounds, around 190 ha of which is in Tawhitinui Reach. 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.

64 As noted, I consider the adverse effects of the new area of coastal permit U141078 on customary fishing will be small. Taking into account the effects of the existing authorised aquaculture areas, I consider the additional effects from the coastal permit area will not cause the cumulative effect on customary fishing to become undue.

Conclusion on effects on customary fishing

65 I am satisfied the aquaculture activities proposed within the new area of coastal permit U141078 will not have an undue adverse effect on customary fishing because:

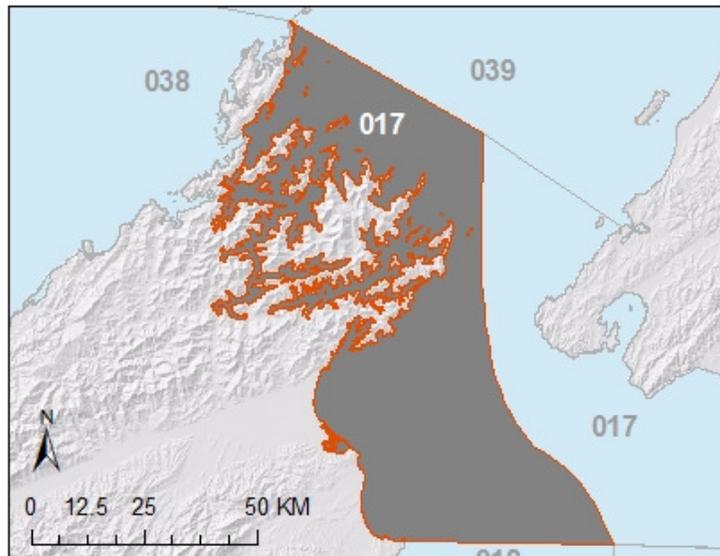
- only some of the customary fishing methods used in the area would be excluded;
- there are other areas available for customary fishing in Tawhitinui Reach and the wider Marlborough Sounds;
- occupation of the new coastal permit area will result in a minimal, if any, increase in the cost of customary fishing;
- the additional adverse effect of the new 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

66 I consider the new area of coastal permit U141078 is located where there is little commercial fishing, if any.

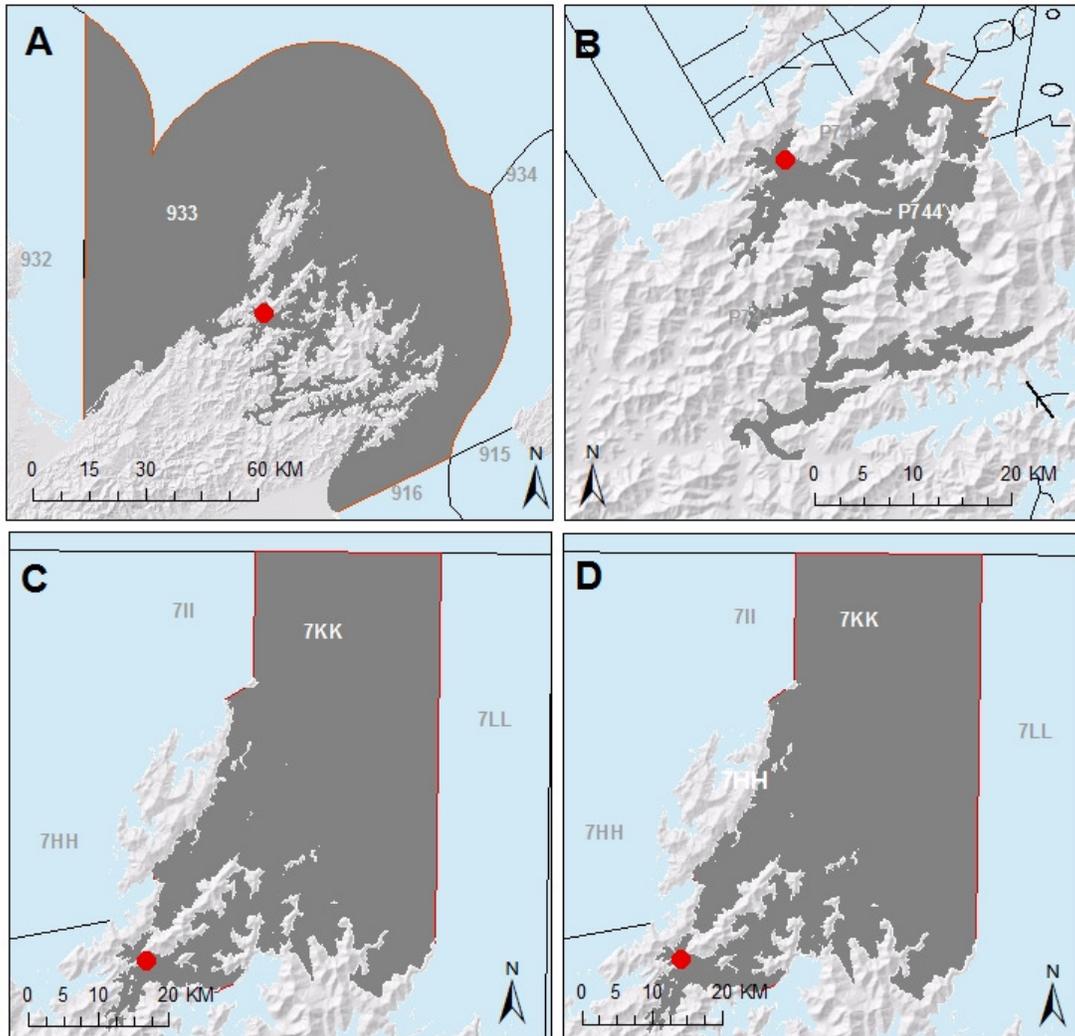
67 Historically, most commercial fishing has been reported by statistical area. The new area of coastal permit U141078 is located in general statistical area 017 (SA017), which extends from d'Urville Island to Cape Campbell (4,149 km²) (Map 4).



Map 4: General statistical area SA017 that encompasses the new area of coastal permit U141078.¹²

68 Scallops, oysters, rock lobster and paua are reported by species-specific statistical areas rather than by general statistical area. The new area of coastal permit U141078 falls within rock lobster statistical area 933, paua statistical area P744, scallop statistical area 7KK and oyster statistical area 7KK (Maps 5A, 5B, 5C and 5D).

¹² Hillshade imagery produced by Geographx. Sourced from www.koordinates.com under CC-By. <http://creativecommons.org/licenses/by/3.0/nz/>



Map 5: Species-specific statistical areas that encompass the new area of coastal permit U141078 (approximate location as red circle). A – Rock lobster statistical area 933. B – Paua statistical area P744. C – Scallop statistical area 7KK. D – Oyster statistical area 7KK.¹³

69 Reporting by statistical area only provides coarse-scale information about where commercial fishing occurs. However, since 2007/08 vessels over 6 m long that have used trawl or line fishing methods¹⁴ 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 netting methods¹⁵ have had to report to within 2 nm.¹⁶ 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.

70 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.

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

¹⁴ Bottom long lining, surface long lining or trot lines.

¹⁵ Set-netting or drift-netting.

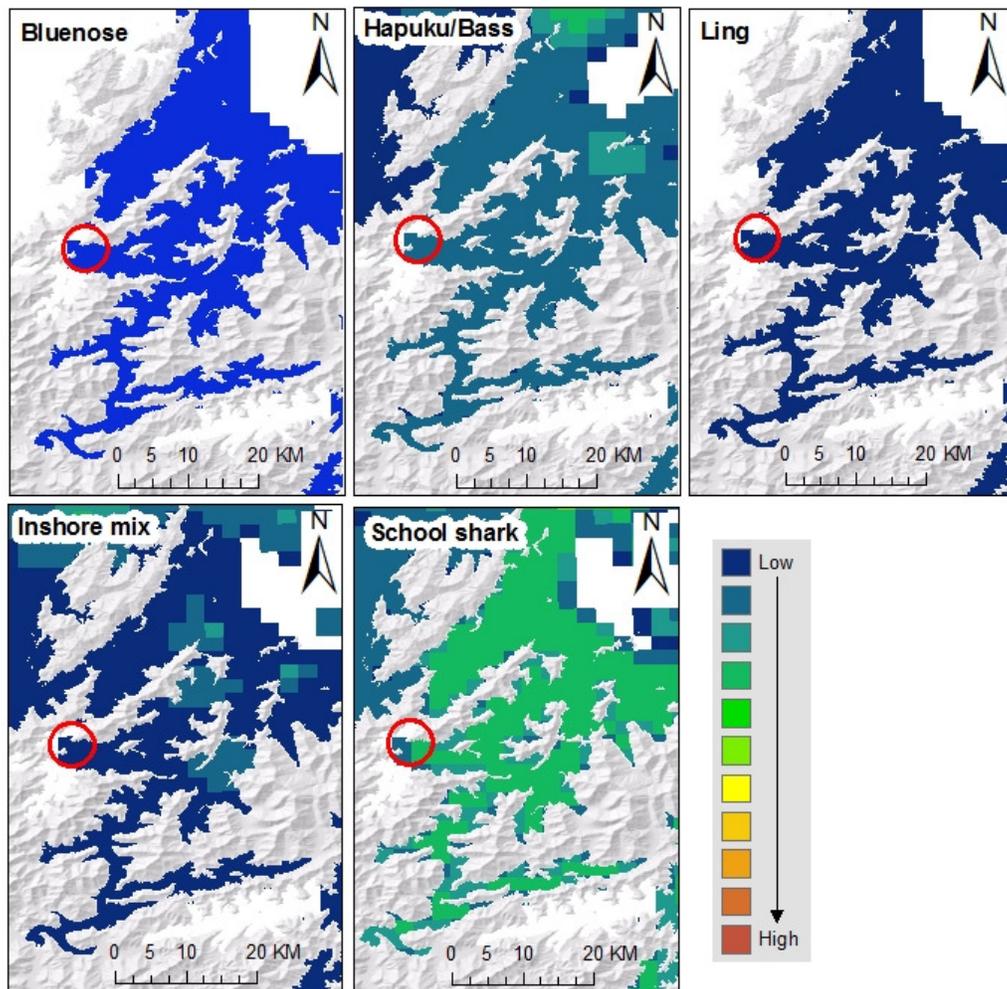
¹⁶ *Fisheries (Reporting) Regulations 2001.*

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.

71 Table 2 below lists the main fishery segments known to occur in SA017 and summarises my assessment of which fishery segments are likely to overlap the new area of coastal permit U141078. Maps 6A, 6B and 6C 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.

72 Table 2 also gives the 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 6A, 6B and 6C.

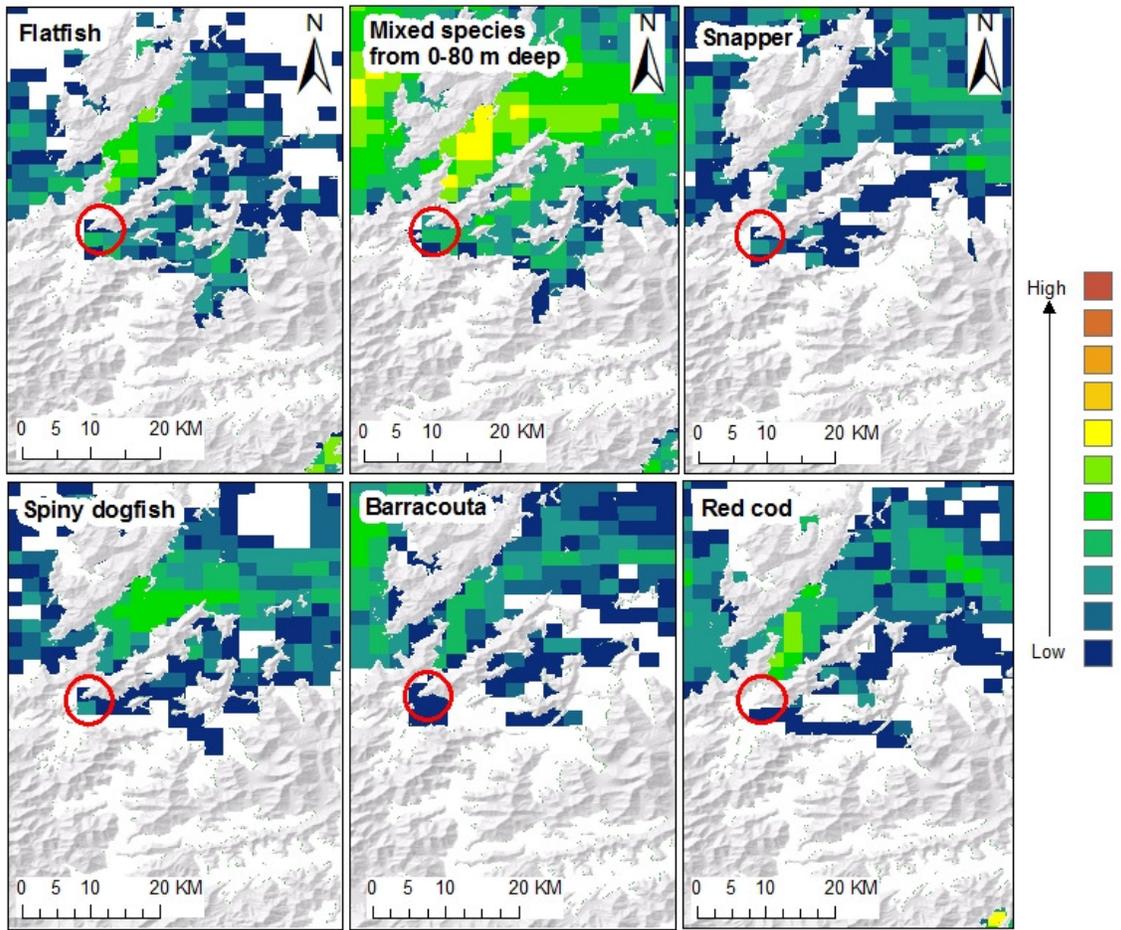
73 As noted in Table 2, the new area of coastal permit U141078 is located where Danish seining and the use of box nets and teichi nets is prohibited.¹⁷ Take of oysters or cockles is also prohibited at the coastal permit area.¹⁸



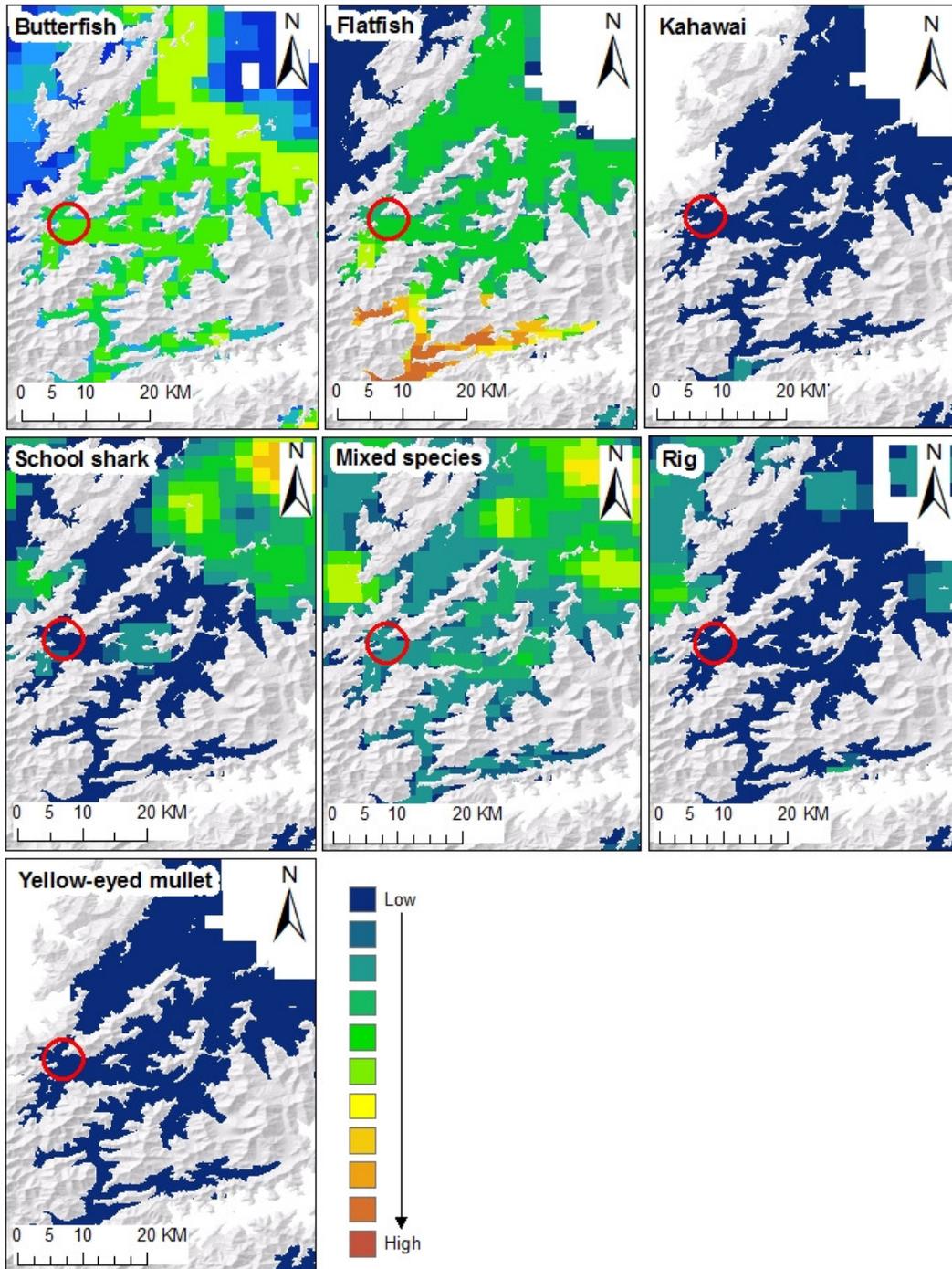
Map 6A: Fishing intensity of long line fishery segments. The red circle indicates the general location of the new coastal permit area.

¹⁷ Fisheries (Commercial Fishing) Regulations 2001 and Fisheries (Challenger Area Commercial Fishing) Regulations 1986.

¹⁸ Fisheries (Challenger Area Commercial Fishing) Regulations 1986.



Map 6B: Fishing intensity of trawl fishery segments. The red circle indicates the general location of the coastal permit area.



Map 6C: Fishing intensity of set net fishery segments. The red circle indicates the general location of the coastal permit area.

Table 2: 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) ¹⁹	Statistical area	% of fine scale fishing events	Average annual no. fishing days ²⁰	% of main fishstock caught in statistical area	Included in the proposed farm assessment?	Rationale for excluding a fishery from proposed farm assessment ²¹
Inshore Mix <80m depth, Trawl	017	98%	204	N/A	Yes	
Red Cod (RCO7), Trawl	017	100%	176	18%	Yes	
Flatfish (FLA7), Set Net	017	72%	155	6%	Yes	
School shark (SCH7), Long Lining	017	23%	95	14%	Yes	
Spiny Dogfish (SPD7), Trawl	017	99%	81	24%	Yes	
Flatfish (FLA7), Trawl	017	99%	68	6%	Yes	
Mixed fishery, Set Net	017	71%	63	N/A	Yes	
Barracouta (BAR7), Trawl	017	99%	62	2%	Yes	
Sea cucumber (SCC7A), Diving	017	0%	33	90%	Yes	
Snapper (SNA7), Trawl	017	98%	17	10%	Yes	
Mixed fishery, Long Lining	017	82%	17	N/A	Yes	
School shark (SCH7), Set Net	017	98%	15	14%	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. There is no rocky reef in the new coastal permit area
Hoki (HOK1), Trawl	017	100%	421	22%	No	This type of fishing is unlikely to occur in the new coastal permit area as no fine scale trawl events were recorded in the vicinity of the site

¹⁹ Main fishstock refers to the species most often caught by the relevant method, it does not include all species taken by that method.

²⁰ Excludes segments with less than 10 days fishing per year.

²¹ 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.

Table 2 continued:

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
Scallops (SCA7), Dredge	7KK	0%	218	47%	No	Available information suggests the new coastal permit area is not in area used for commercial scallop fishing
Ghost shark (GSH7), Trawl	017	99%	214	57%	No	This type of fishing is unlikely to occur in the new 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 highly unlikely to be affected. Kina are found on rock substrate. There is no rock substrate in the new coastal permit area
Butterfish (BUT7), Set Net	017	40%	183	27%	No	Butterfish are a reef dwelling, algae feeding species. The new coastal permit area does not overlap these habitats
Blue cod (BCO7), Cod Pot	017	0%	134	40%	No	Blue cod potting is highly unlikely to be affected as fishers are unlikely to set pots over soft substrate
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
Gurnard (GUR7), Trawl	017	99%	62	8%	No	This type of fishing is unlikely to occur in the new 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 new 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 highly unlikely in the new 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
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
Blue Warehou (WAR7), Trawl	017	100%	11	6%	No	This type of fishing is unlikely to occur in the new coastal permit area as no fine scale trawl events were recorded in the vicinity of the site

Exclusion of fishing

74 I consider the aquaculture activities proposed in the new area of coastal permit U141078 will exclude only a small amount of commercial fishing, if any.

75 With the exception of trawling, the exclusion zone for commercial fishing methods in this assessment (as identified in Table 2) is the new area of coastal permit U141078 (ie, 0.527 ha). This is because the methods could occur immediately adjacent to but not within the new coastal permit area. However, for trawl fishing a 250 m exclusion zone was added to the new 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 new coastal permit area would exclude 1.38 ha from trawling.

Availability of other fishing areas

76 I consider that any commercial fishing displaced from the new area of coastal permit U141078 could occur in other areas.

77 There are commercial closures or restrictions in parts of SA017 and the relevant QMAs or FMA7 (including various species, method, time period, fishing gear, or a combination of these criteria).²² However, I consider the extent of the closures does not significantly limit the potential for any commercial fishing displaced from the coastal permit area to be absorbed by alternative fishing grounds because:

- the same methods as those possibly used at the coastal permit area could be used elsewhere in Tawhitinui Reach, most other parts of SA017, and in other areas in the relevant QMAs or FMA7;
- the species potentially targeted by commercial fishers within the new coastal permit area are typically found over mud substrate which is common throughout the rest of Tawhitinui Reach, elsewhere in SA017 and the relevant QMAs or FMA7; and
- the area excluded to commercial fishing would be relatively small.

78 I recognise areas of authorised aquaculture space have reduced the availability of other commercial fishing areas over time. As noted, there are around 190 ha of authorised aquaculture space in Tawhitinui Reach. In SA017 there are approximately 3,400 ha of marine farms that make up 30% of the 10,200 ha of aquaculture in FMA7. 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 new area of coastal permit U141078 will not increase the cost of commercial fishing.

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

²² The *Marine Reserves Act 1971*, *Fisheries (Challenger Area Commercial Fishing) Regulations 1986* and *Fisheries (Commercial Fishing) Regulations 2001* contain closures and restrictions.

Likely effect on fishing

81 I consider the aquaculture activities proposed in the new area of coastal permit U141078 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 new area of coastal permit U141078 is negligible. The new coastal permit area would affect less than 2 kg of average annual catch for fishing indicated as assessed in Table 2. 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 zones²³ of the new 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 2011/12. Five 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 very 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 new 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 new area of coastal permit U141078 is negligible.

87 Around 10,200 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 new area of coastal permit U141078, the cumulative effect has previously been assessed as a maximum of approximately 1.6% effect on any fishery and not undue.

88 As noted, the new coastal permit area would affect less than 2 kg of average annual catch for fishing indicated as assessed in Table 2. I consider this negligible increase will not cause the new level of cumulative effect on any fishery to become undue.

Conclusion on effects on commercial fishing

89 I am satisfied the aquaculture activities proposed within the new area of coastal permit U141078 will not have an undue adverse effect on commercial fishing because:

- not all commercial fishing methods used in the area would be excluded;

²³ The “exclusion zone” used for the methods assessed was the new coastal permit area for all permitted methods except trawling, which had an additional 250 m exclusion zone applied.

- there are alternate fishing grounds in Tawhitinui Reach, SA017, and the relevant QMAs or FMA7;
- occupation of the new 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 for any fish stock is only small and will not cause the cumulative effect on commercial fishing for any fish stock to become undue.

Aquaculture decision

90 I am satisfied – based on all relevant information available to me – the activities proposed for coastal permit area U141078 will not have an undue adverse effect on:

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

91 Accordingly, my decision is a determination for coastal permit U141078 with regard to:

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

92 The area of the determination on recreational, customary and commercial fishing is 0.527 ha comprising an area with the following coordinates (NZTM2000):

<u>Point</u>	<u>Easting</u>	<u>Northing</u>
1	1668891.97	5458672.47
2	1668900.13	5458686.71
3	1669246.05	5458650.96
4	1669244.50	5458636.04

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



David Scranney
Spatial Allocations Manager
Ministry for Primary Industries

Dated this 8th October 2015

References

Davey, N.K.; Hartill, B.; Cairney, D.G.; Cole, R.G. 2008. Characterisation of the Marlborough Sounds recreational fishery and associated blue cod and snapper harvest estimates. *New Zealand Fisheries Assessment Report 2008/31*. 63 p.

Davidson, R. J. (2014). Ecological report in relation to additional mussel lines and a proposed extension to marine farm 8183 located near Sheep Point, Tawhitinui Reach. Prepared by Davidson Environmental Limited for Clearwater Mussels Limited. Survey and monitoring report no. 804.