



19 June 2015

AQUACULTURE DECISION REPORT — TALLEY'S GROUP LIMITED, COASTAL PERMIT U141009, CRAIL BAY, CENTRAL PELORUS SOUND, MARLBOROUGH SOUNDS

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 U141009 will not have an undue adverse effect on:

- recreational fishing — for the reasons set out in this report and summarised in paragraph 44;
- customary fishing — for the reasons set out in this report and summarised in paragraph 64;
- commercial fishing — for the reasons set out in this report and summarised in paragraph 88.

AQUACULTURE DECISION REQUEST DETAILS

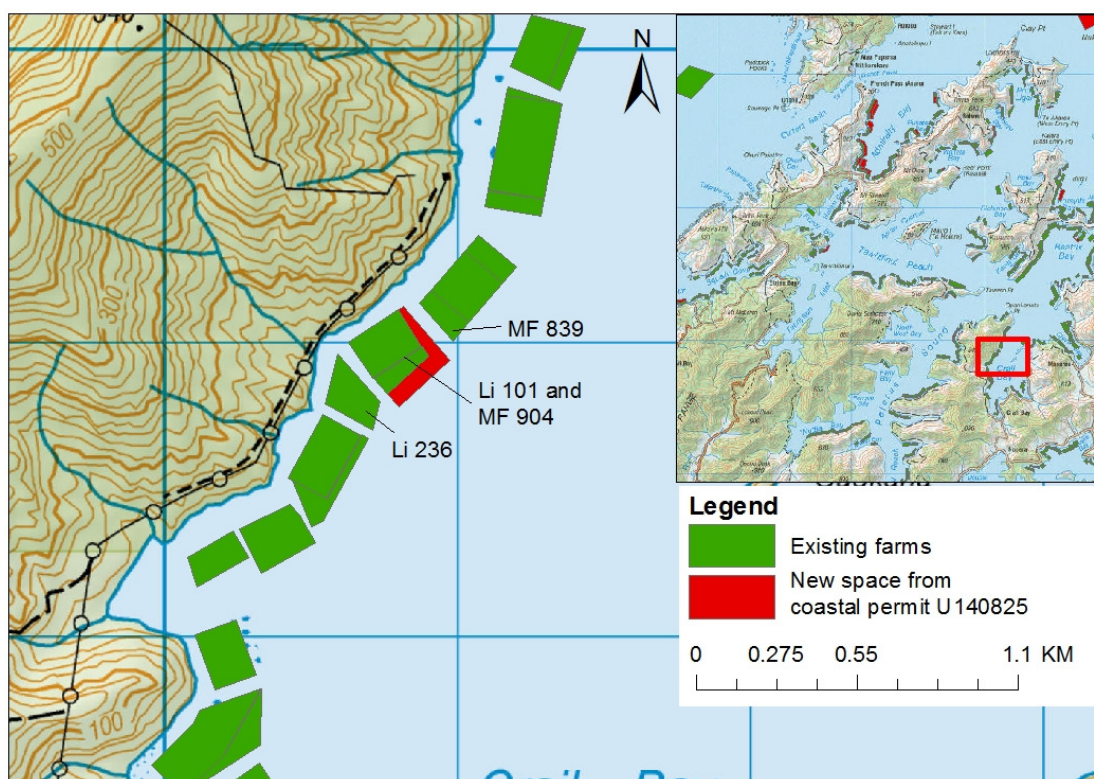
Regional Council:	Marlborough District Council (MDC)
Date of Request:	22 May 2015
Coastal Permit Applicant:	Talley's Group Limited
Location of marine farm site:	Crail Bay, Central Pelorus Sound, Marlborough Sounds
Size of farm:	2.05 hectares (ha) of new space, extending marine farm licence 101 (Li 101) and marine farm permit 904 (MF 904). Coastal permit U141009 encompasses the new space, Li 101 and MF 904 but relinquishes 0.252 ha of the existing area.
Species to be farmed:	Green-lipped mussels (<i>Perna canaliculus</i>), blue mussels (<i>Mytilus galloprovincialis</i>), scallops (<i>Pecten novaezelandiae</i>), dredge oysters (<i>Tiostrea chilensis</i>), Pacific oyster (<i>Crassostrea gigas</i>) and algae (<i>Macrocystis pyrifera</i> , <i>Ecklonia radiata</i> , <i>Gracilaria</i> , <i>Pterocladia lucida</i> and <i>Undaria</i>)
Farm structures:	Standard marine farm longlines and anchors with droppers, cages or racks

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

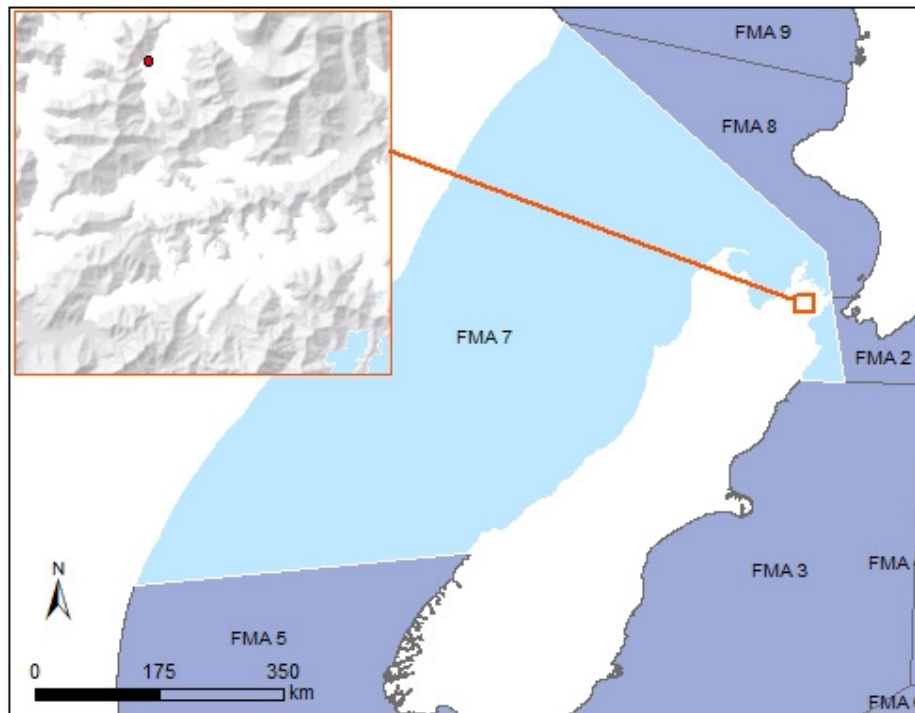
3 Coastal permit U141009 applies to an area on the western side of Crail Bay in Pelorus Sound, Marlborough Sounds (Map 1). The Marlborough Sounds are within Fisheries Management Area 7 (FMA7) (Map 2).

4 Aside from Li 101 and MF 904, the closest existing marine farms to the new area of coastal permit U141009 are marine farm permit 839 (MF 839) and marine farm licence 236 (Li 236), around 45 m to the northeast and 35 m to the southwest respectively (Map 1).



Map 1²: Location of the new area authorised by coastal permit U141009 in Crail Bay, Central Pelorus Sound (MPI, 2015).

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 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/>



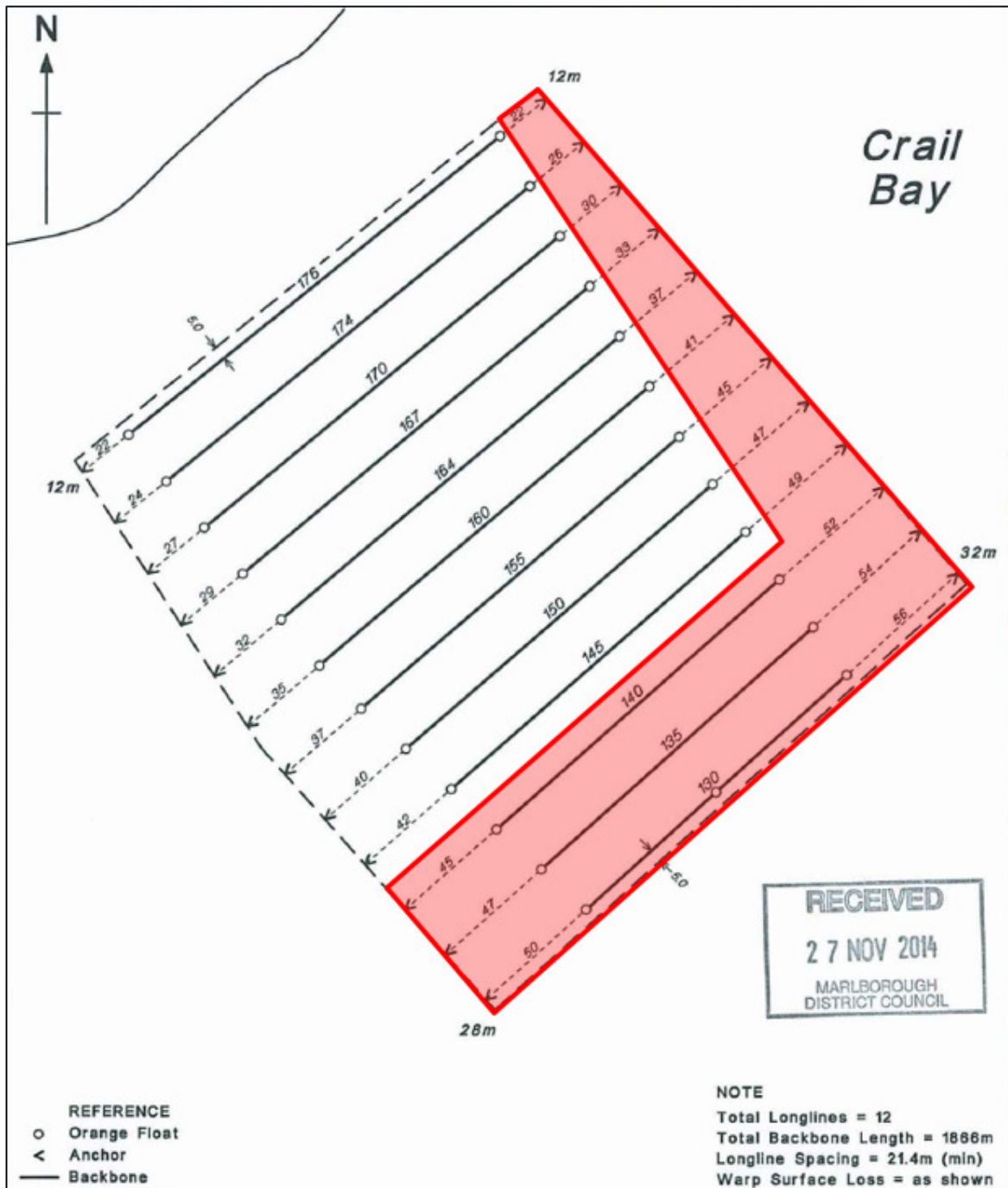
Map 2: Location of the area of coastal permit U141009 (red circle) within FMA7.

5 The new area of coastal permit U141009 is roughly 50 m from shore at its closest point. A benthic survey by Davidson (2014) showed the substrate beneath the new area of coastal permit U141009 is silt and clay. The water depth in the new area is around 11.5 m closest to shore and around 32 m at the deepest offshore corner.

Structures

6 A total of 12 longlines will be contained in the entire area of coastal permit U141009 (the new area, Li 101 and MF 904) (Figure 1). The new area is likely to contain three longlines.

7 The longlines will range from 130-140 m long and be spaced 21.4 m apart (Figure 1).



Input from stakeholders

8 MPI publicised coastal permit application U141009 on its website on 19 January 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 17 February 2015. MPI did not receive any submissions.

³ Sourced from the MDC's decision on coastal permit application U141009.

STATUTORY CONTEXT

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

10 A ‘*determination*’ is a decision that I am satisfied that the aquaculture activities authorised by the coastal permit will not have an undue adverse effect on 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.

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

12 Section 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.

13 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.

14 Section 186F of the Fisheries Act specifies an order of processing that must be followed in making aquaculture decisions. But section 186F(5) allows aquaculture decisions to be made in a different order from that specified if I am satisfied that in making an aquaculture decision out of order it will not have an adverse effect on any other aquaculture decision that has been requested. I am so satisfied in this case.

15 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:

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.

- (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.

16 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 U141009.

17 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.

18 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*.

19 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).

20 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.

21 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

22 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.

23 This assessment relates to the 2.05 ha of new marine farming space authorised by coastal permit U141009.

Recreational fishing

Location of the coastal permit area relative to fishing areas

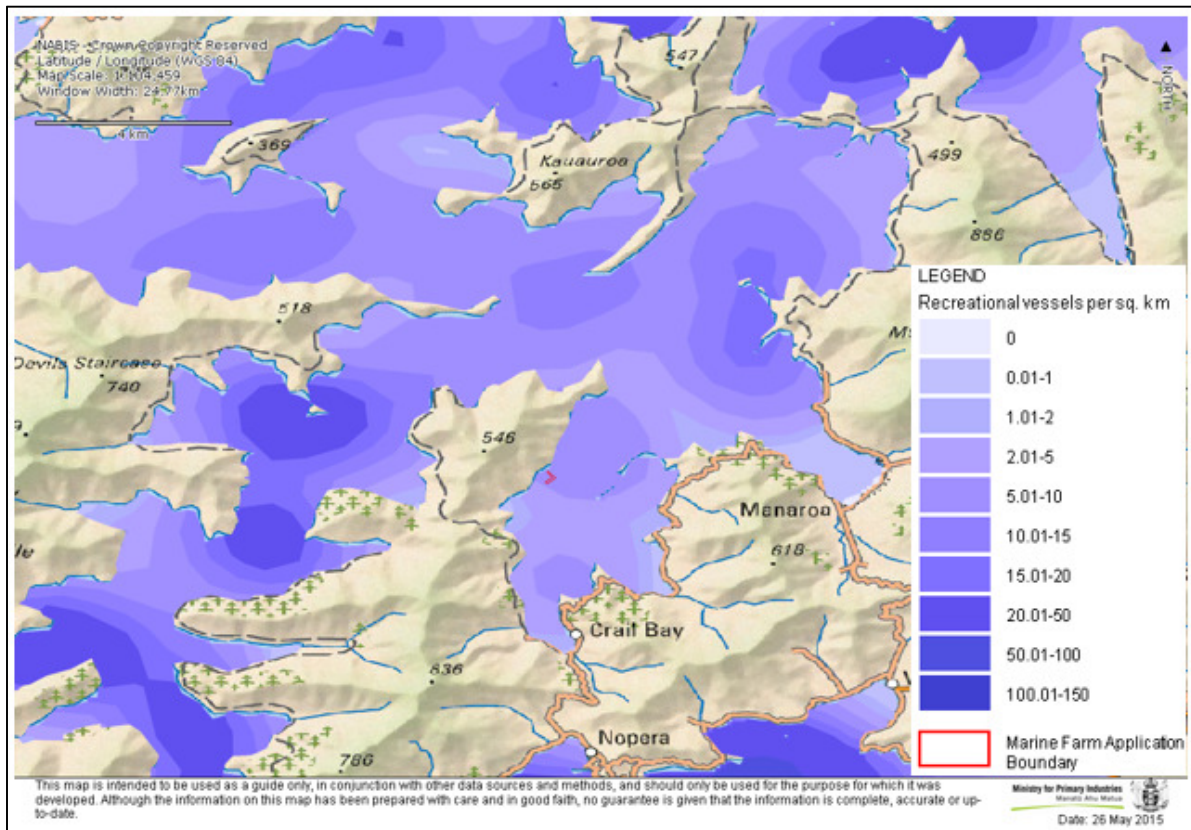
24 I consider that the new area of coastal permit U141009 is located where there is likely to be a low level of recreational fishing, by rod/line methods, set netting, longlining, dredging, diving, spearfishing and potting. Snapper, spotty, kahawai, gurnard, Jack mackerel, spiny dogfish, oysters, barracouta, sea perch, yellow-eyed mullet, scallops, kingfish, scorpion fish and greyboy are the main species caught.

25 Available information on recreational fishing activity at Crail Bay comprises:

- information provided in submissions, if any;
- MPI information (eg, institutional knowledge, previous submissions); and
- fishing surveys.

26 No submissions on the new area of coastal permit U141009 were received from recreational fishers. However, submissions on MF 904 state that recreational fishing occurs throughout Crail Bay, particularly rod/line fishing for cod and snapper, netting for flounder, and shellfish (ie, cockles, pipis and scallops) gathering.

27 Results from the most recent recreational fishing survey of the Marlborough Sounds (in 2006) suggest there is likely to be a low level of recreational fishing at the new area of coastal permit U141009 (Map 3).



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

28 The recreational fishing survey 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 Crail Bay. Table 1 below summarises my assessment of the main methods used, and species caught in the new area of coastal permit U141009 based on the recreational fishing survey, benthic surveys (Davidson, 2014) and other information

29 As shown, I consider that stationary and mobile rod/line methods, set netting, longlining, dredging, diving, spearfishing and potting could be used, and that snapper, spotty, kahawai, gurnard, Jack mackerel, spiny dogfish, oysters, barracouta, sea perch, yellow-eyed mullet, scallops, kingfish, scorpion fish and greyboy are the main species caught.

⁵ Figure sourced from NABIS (MPI, 2015).

Table 1: Recreational fishing methods used and species caught at the new area of coastal permit U141009 based on the available information.

	Source of information			
	Davey <i>et al.</i> , (2008)	Submissions	Other information	My assessment
Methods used (ordered by popularity)	Rod/line from private boat, longline from private boat, drag netting, rod/line from charter boat, hand gathering, set netting, flounder spearing, diving from private boat, shore fishing	Submissions on MF 904 stated that recreational fishing occurs throughout Crail Bay, particularly red/line fishing for cod and snapper, netting for flounder, and shellfish (ie, cockles, pipis and scallops) gathering	Other recreational fishing methods include potting, dredging, trolling and spearfishing/freediving Depths at the site are greater than those used for drag netting and hand gathering	Stationary and mobile rod/line methods, set netting, longlining, dredging, diving, spearfishing and potting could be used at the site
Species caught (ordered by popularity)	Blue cod, snapper, spotty, mussels, kahawai, gurnard, Jack mackerel, spiny dogfish, oysters, barracouta, sea perch, yellow-eyed mullet, scallops, rock lobster, hapuku, kingfish, scorpion fish, greyboy		No habitat (ie, cobble/hard substrate/reef/algae beds) typically favored by blue cod, rock lobster or mussels was observed in the benthic survey of the new area Scallops were not observed in the benthic survey but are likely to be present (Davidson, 2014) Depths at the site are shallower than those typically productive for hapuku	Snapper, spotty, kahawai, gurnard, Jack mackerel, spiny dogfish, oysters, barracouta, sea perch, yellow-eyed mullet, scallops, kingfish, scorpion fish and greyboy

Exclusion of fishing

30 I consider the aquaculture activities proposed for the new area of coastal permit U141009 will exclude some of the recreational fishing methods that may be used in this area.

31 Of the recreational fishing likely to occur in the new area of coastal permit U141009 it is likely that set netting, longlining, dredging, and drift fishing or trolling by rod/line would be excluded. Anecdotal information from recreational fishers⁶ 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 also consider that drift fishing and dredging are unlikely to occur within marine farms because of 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 longlines. I do not consider that diving, spearfishing or potting would be excluded from the site.

Availability of other fishing areas

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

33 There are no method restrictions or prohibitions on recreational fishing in Crail Bay and the new area of coastal permit U141009. However, the wider Marlborough Sounds 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 Crail Bay for recreational fishers able to fish further afield.

34 Nevertheless, I consider alternative areas in Crail Bay and the wider Marlborough Sounds could absorb fishing by most fishers who fish the new area of coastal permit U141009 because:

- mud (the 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 new area could be used elsewhere in Crail Bay or some other parts of the Marlborough Sounds; and
- there are sufficient alternative areas, particularly for rod/hand line fishing which can occur amongst mussel farms.

Increased cost of fishing

35 I consider the aquaculture activities proposed for the new area of coastal permit U141009 will result in a minimal, if any, increase in the cost of recreational fishing.

36 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 in the site can be taken using alternative fishing methods.

Likely effect on fishing

37 I consider the likely effect on recreational fishing from the aquaculture activities proposed in the new area of coastal permit U141009 will be small.

38 There is little quantitative data available on recreational catch taken from the new coastal permit area, Crail Bay, or the Marlborough Sounds. Recreational fishers are not required to report

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*.

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.

39 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; and
- alternative areas within Crail Bay and the wider Marlborough Sounds could absorb the recreational fishing displaced from the site.

Cumulative effects

40 I consider effects from the aquaculture activities proposed for the new area of coastal permit U141009, added to the effects of existing aquaculture in the Marlborough Sounds, will not have an undue adverse effect on recreational fishing.

41 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.

42 I acknowledge there is already a large amount (approximately 3,600 ha) of authorised aquaculture space in the Marlborough Sounds. Approximately 200 ha of this authorised aquaculture space is in Crail Bay. 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.

43 As noted, I consider the adverse effects of the new area of coastal permit U141009 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

44 I am satisfied the aquaculture activities proposed within the new area of coastal permit U141009 will not have an undue adverse effect on recreational fishing because:

- anchored rod/line fishing, diving, spearfishing or potting could still be used in the area;
- there are other recreational fishing areas available in Crail Bay and the wider Marlborough Sounds;
- occupation of the new 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

45 I consider the new area of coastal permit U141009 is located where there could be a small amount of customary fishing for flatfish, snapper and scallops, most probably by rod/line methods, longlining, set netting, dredging, diving, spearfishing and potting.

46 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 mātaitai 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

47 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.

48 MPI has not received any submissions on the importance of the new coastal permit area for customary fishing. However, from January 2009 to March 2014, customary authorisations were issued for Pelorus Sound which may include Crail Bay.

49 Table 2 below summarises my assessment of the main methods used, and species caught in the new area of coastal permit U141009 based on the customary authorisations and other available information. As shown, I consider it likely that rod/line methods, longlining, set netting, dredging, diving, spearfishing and potting are the main methods used at the site and that scallops, snapper and flatfish are the main species fished.

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.

Table 2: Customary fishing methods used and species caught at the new area of coastal permit U141009 based on the available information.

	Source of information			
	Customary authorisations	Submissions	Other information	My assessment
Methods used (ordered by popularity)	N/A	A submission on MF 904 states that there is no customary fishing in Crail Bay	Methods used by recreational fishers (and potentially customary fishers) at the new coastal permit area are stationary and mobile rod/line methods, set netting, longlining, dredging, diving, spearfishing and potting	Stationary and mobile rod/line methods, set netting, longlining, dredging, diving, spearfishing and potting could be used in the new coastal permit area
Species caught (ordered by popularity)	Blue cod, paua, rock lobster, scallops, butterfish, blue moki, flatfish, snapper, hapuku and Pacific oyster were the species in authorisations for Pelorus Sound		<p>No habitat (ie, cobble/hard substrate/reef/algae beds) typically favored by blue cod, butterfish, blue moki, paua or rock lobster or Pacific oysters was observed in the benthic survey of the new area</p> <p>Scallops were not observed in the benthic survey but are likely to be present (Davidson, 2014)</p> <p>Depths at the site are shallower than those typically productive for hapuku</p>	Scallops, snapper and flatfish could be taken by customary fishers in the new coastal permit area

Exclusion of fishing

50 I consider the aquaculture activities proposed for the new area of coastal permit U141009 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 set netting, longlining, dredging, and drift fishing or trolling by rod/line 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. And, as noted, I consider that drift fishing and dredging are unlikely to occur within marine farms because of risk of entanglement. I therefore consider use of these methods by customary fishers would also be prevented. I do not consider that anchored rod/line fishing, spearfishing or potting would be excluded from the site.

Availability of other fishing areas

52 I consider there are some alternative areas for customary fishing in Crail Bay and the wider Marlborough Sounds.

53 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.¹⁰ A large number of alternative areas are therefore available for customary fishing that may be displaced from the new area of coastal permit U141009.

54 I also consider there are alternative areas in Crail Bay and the wider Marlborough Sounds for customary fishers because:

- mud (the 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 Crail Bay or some 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

55 I consider the aquaculture activities proposed for the new area of coastal permit U141009 will result in a minimal, if any, increase in the cost of customary fishing.

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

Likely effect on fishing

57 I consider the likely effect on customary fishing from the aquaculture activities proposed in the new area of coastal permit U141009 will be relatively small.

58 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,

¹⁰ *The Marine Reserves Act 1971* and the *Submarine Cables and Pipelines Protection Act 1996*.

MPI can only make an assessment of the effect of the proposed aquaculture activities on customary fishing based on qualitative information.

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

- the area excluded to fishers is small;
- only a small amount of customary fishing is likely to occur at the site; and
- alternative areas within Crail Bay and the wider Marlborough Sounds could absorb the customary fishing displaced from the new area of coastal permit U141009.

Cumulative effects

60 I consider the effects from the aquaculture activities proposed for the new area of coastal permit U141009, added to the effects of existing aquaculture in the Marlborough Sounds, will not have an undue adverse effect on customary fishing.

61 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.

62 As noted, there are approximately 3,600 ha of authorised aquaculture space in the Marlborough Sounds and around 200 ha of this is in Crail Bay. I consider the authorised aquaculture space in Crail Bay and elsewhere in the Marlborough Sounds 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.

63 As noted, I consider the adverse effects of the new area of coastal permit U141009 on customary 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 customary fishing to become undue.

Conclusion on effects on customary fishing

64 I am satisfied the aquaculture activities proposed within the new area of coastal permit U141009 will not have an undue adverse effect on customary fishing because:

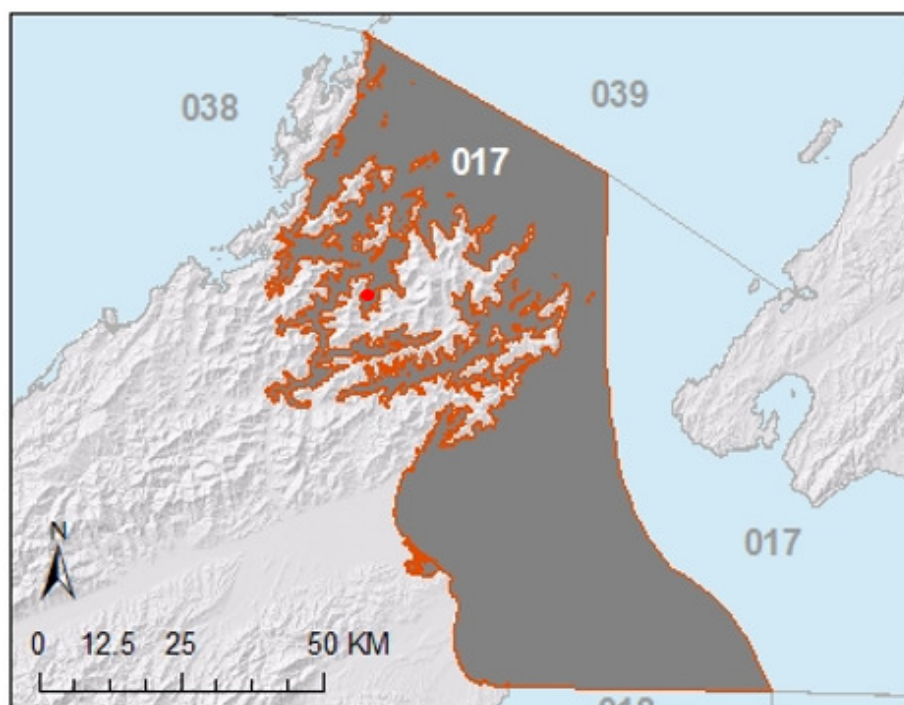
- anchored rod/line fishing, diving, spearfishing or potting could still be used in the area;
- there are other areas available for customary fishing in Crail Bay and the wider Marlborough Sounds;
- occupation of the new coastal permit area will result in a minimal, if any, increase in the cost of customary fishing; and
- 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

65 I consider the new area of coastal permit U141009 is located where there is little commercial fishing, if any.

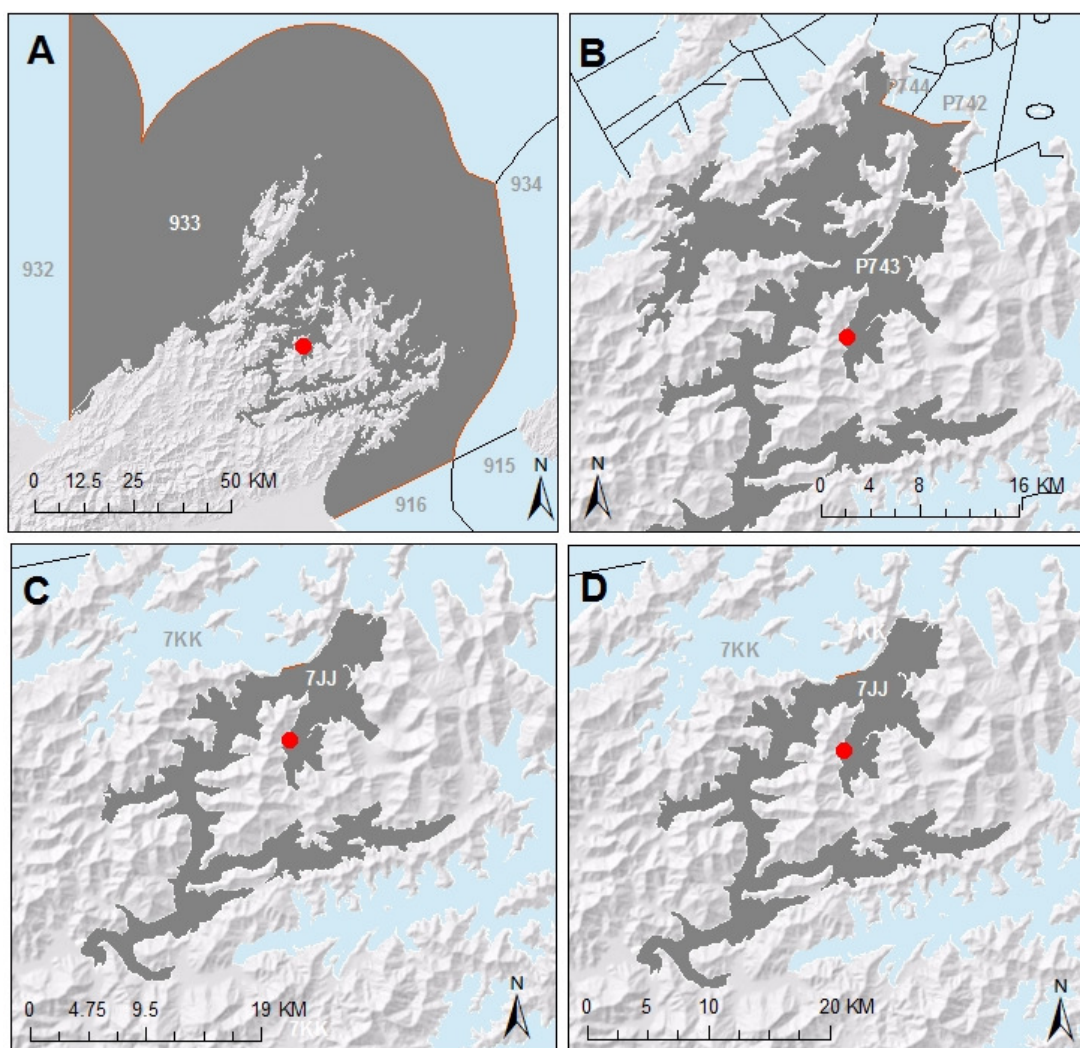
66 Historically, most commercial fishing has been reported by statistical area. The new area of coastal permit U141009 is located in general statistical area 017 (SA017), which extends from d'Urville Island to Cape Campbell (4,149 km²) (Map 4).



Map 4: General statistical area SA017 that encompasses the new area of coastal permit U141009 (approximate location as red circle).¹¹

67 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 U141009 falls within rock lobster statistical area 933, paua statistical area P743, scallop statistical area 7JJ and oyster statistical area 7JJ (Maps 5A, 5B, 5C and 5D).

¹¹ 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 U141009 (approximate location as red circle). A – Rock lobster statistical area 933. B – Paua statistical area P743. C – Scallop statistical area 7JJ. D – Oyster statistical area 7JJ.¹²

68 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 methods¹³ 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 methods¹⁴ have had to report to within 2 nm.¹⁵ 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,

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

¹³ Bottom long lining, surface long lining or trot lines

¹⁴ Set-netting or drift-netting

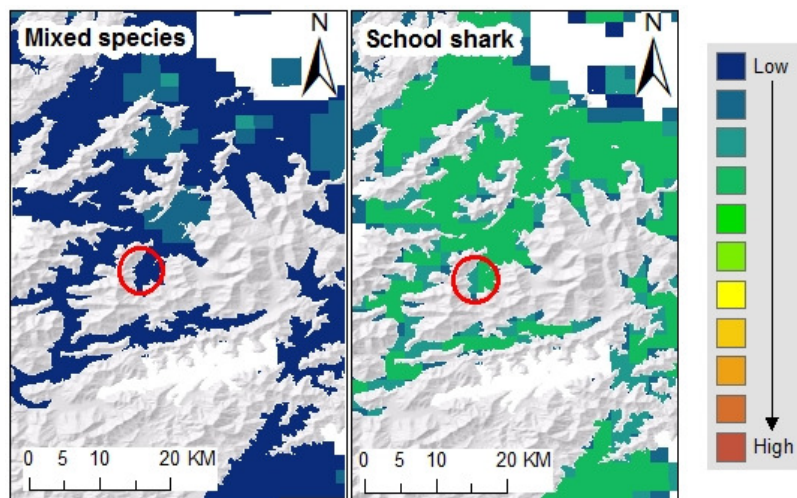
¹⁵ *Fisheries (Reporting) Regulations 2001*.

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.

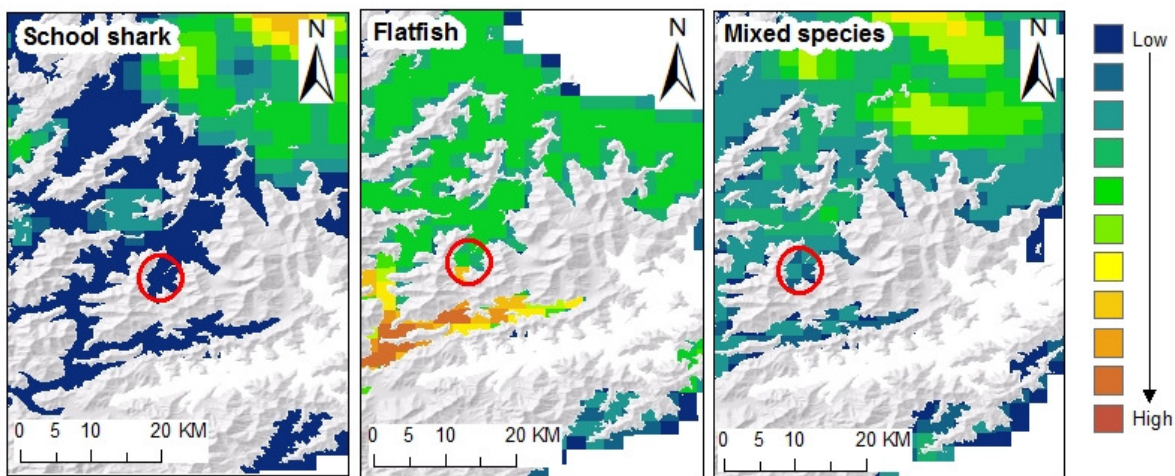
70 Table 3 below lists the main fishery segments known to occur in SA017 and summarises my assessment of which fishery segments are likely to overlap the new area of coastal permit U141009. Maps 6A, 6B and 6C below show the annual average fishing effort per ha (for fishing years 2007/08–2011/12) for overlapping fishery segments with fishing reported by both latitude and longitude and by statistical area.

71 Table 3 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.

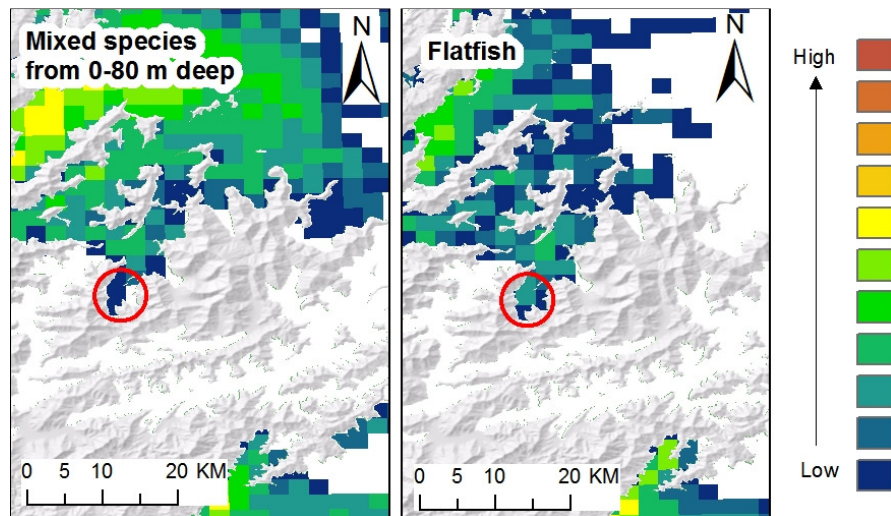
72 As noted in Table 3, the new area of coastal permit U141009 is located where Danish seining and the use of box nets and teichi nets is prohibited.



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



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



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

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) ¹⁶	Statistical area	% of fine scale fishing events	Average annual no. fishing days ¹⁷	% of main fishstock caught in statistical area	Included in the proposed farm assessment?	Rationale for excluding a fishery from proposed farm assessment ¹⁸
Inshore Mix <80m depth, Trawl	017	98%	204	N/A	Yes	
Flatfish (FLA7), Set Net	017	72%	155	6%	Yes	
School shark (SCH7), Long Lining	017	23%	95	14%	Yes	
Flatfish (FLA7), Trawl	017	99%	68	6%	Yes	
Mixed fishery, Set Net	017	71%	63	N/A	Yes	
Mixed fishery, Long Lining	017	82%	17	N/A	Yes	
School shark (SCH7), Set Net	017	98%	15	14%	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
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	Sea urchins are mainly fished from areas of rocky reef. The new coastal permit area does not include this habitat type
Butter fish (BUT7), Set Net	017	40%	183	27%	No	Butterfish are a reef dwelling, algae feeding species. These habitats do not occur in the new coastal permit area
Red Cod (RCO7), Trawl	017	100%	176	18%	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
Inshore Mix >80m <300m, Trawl	017	100%	149	N/A	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

¹⁶ Main fishstock refers to the species most often caught by the relevant method, it does not include all species taken by that method.

¹⁷ Excludes segments with less than 10 days fishing per year.

¹⁸ Unless otherwise stated, fishing is permitted and MPI has no information to indicate it does not occur in the vicinity of the coastal permit area.

Table 3 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
Blue cod (BCO7), Cod Pot	017	0%	134	40%	No	Blue cod are commonly targeted over rock reef/cobble substrate. These habitats do not occur in the new coastal permit area
Hapuku and Bass (HPB7), Long Lining	017	52%	132	32%	No	These species are typically caught in areas deeper than the new coastal permit area and are unlikely to occur at commercially viable quantities in the area
Spiny Dogfish (SPD7), Trawl	017	99%	81	24%	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
Barracouta (BAR7), Trawl	017	99%	62	2%	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
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	Blue cod are mainly fished from areas of rock reef/cobble substrate. The new coastal permit area does not overlap these habitat types
Surf clams, Dredge (PDO7)	017	0%	34	0%	No	Surf clams (tuatua) are generally found in sandy intertidal zones. The new coastal permit area does not overlap this substrate
Sea cucumber (SCC7A), Diving	017	0%	33	90%	No	This type of fishing is unlikely to be excluded from the new coastal permit area
Other species, Potting	017	0%	19	N/A	No	This type of fishing is likely to be bycatch from potting targeting blue cod or rock lobster, which are unlikely to be targeted in the new coastal permit area
Other species, Dredging	017	0%	18	N/A	No	This type of fishing is likely to be bycatch of scallop dredging. The new coastal permit area is not used for commercial scallop fishing
Snapper (SNA7), Trawl	017	98%	17	10%	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
Mixed fishery, Beach Seine	017	0%	13	N/A	No	The new coastal permit area is too deep for this fishing method
Other species, Diving	017	0%	13	N/A	No	This type of fishing is unlikely to be excluded from the new coastal permit area
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

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

^B Excludes segments with less than five days fishing per year.

^C Unless otherwise stated, fishing is permitted and MPI has no information indicating it does not occur in vicinity of the new coastal permit area.

Exclusion of fishing

73 I consider the aquaculture activities proposed in the new area of coastal permit U141009 will exclude only a small amount of commercial fishing, if any.

74 With the exception of trawling, the exclusion zone for commercial fishing methods in this assessment (as identified in Table 3) is the new area of coastal permit U141009 (ie, 2.05 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 area already excluded by existing marine farms, the new coastal permit area would exclude 2.03 ha from trawling.

Availability of other fishing areas

75 I consider that any commercial fishing displaced from the new area of coastal permit U141009 could occur in other areas.

76 There are commercial closures or restrictions in other parts of SA017, the relevant QMAs or FMA7 (including various species, method, time period, fishing gear, or a combination of these criteria).¹⁹ However, I consider alternative areas in Crail Bay, other parts of SA017 and the relevant QMAs or FMA7 could absorb any commercial fishing displaced from the new coastal permit area because:

- the same methods as those possibly used at the new coastal permit area could be used elsewhere in Crail Bay, 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 Crail Bay and elsewhere in SA017 and the relevant QMAs or FMA7; and
- the area excluded to commercial fishing would be relatively small.

77 I recognise areas of authorised aquaculture space have reduced the availability of other commercial fishing areas over time. As noted, there are around 200 ha of authorised aquaculture space in Crail Bay. In SA017 there are approximately 3,400 ha of marine farms that make up more than 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

78 I consider that the aquaculture activities proposed in the new area of coastal permit U141009 will not increase the cost of commercial fishing.

79 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.

¹⁹ 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

80 I consider the aquaculture activities proposed in the new area of coastal permit U141009 will only have a small adverse effect on any commercial fishery, if any.

81 The amount of fishing effort estimated to be displaced by the activities proposed in the new area of coastal permit U141009 is negligible. The new coastal permit area would affect less than 2 kg of average annual catch for fishing indicated as assessed in 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 zones²⁰ 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.

82 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.

83 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.

84 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

85 I consider the addition to the cumulative effect on commercial fishing from the aquaculture activities proposed in the new area of coastal permit U141009 is negligible.

86 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 U141009, the cumulative effect has previously been assessed as a maximum of approximately 1.6% effect on any fishery and not undue.

87 As noted, the new coastal permit area would affect less than 2 kg of average annual catch for fishing indicated as assessed in Table 3. 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

88 I am satisfied the aquaculture activities proposed within the new area of coastal permit U141009 will not have an undue adverse effect on commercial fishing because:

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

²⁰ 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 Crail Bay, 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

89 I am satisfied – based on all relevant information available to me – the activities proposed for coastal permit area U141009 will not have an undue adverse effect on:

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

90 Accordingly, my decision is a determination for coastal permit U141009 with regard to:

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

91 The area of the determination on recreational, customary and commercial fishing is 2.05 ha comprising an area with the following coordinates (NZTM2000):

<u>Point</u>	<u>Easting</u>	<u>Northing</u>
1	1680810.65	5449130.22
2	1680970.64	5448946.00
3	1680795.07	5448788.42
4	1680755.87	5448832.46
5	1680897.21	5448962.02
6	1680793.71	5449116.54

92 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 19 June 2015

References

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