



2 September 2015

AQUACULTURE DECISION REPORT — JUST MUSSELS LIMITED, COASTAL PERMIT U140992, POPOURE REACH, CENTRAL PELORUS SOUND; AND MARLBOROUGH AQUACULTURE LIMITED FOR U150097, POPOURE REACH, CENTRAL PELORUS SOUND

PURPOSE

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

SUMMARY

2 I am satisfied the aquaculture activities proposed within the new areas of coastal permits U140992 and U150097 will not have an undue adverse effect on:

- recreational fishing — for the reasons set out in this report and summarised in paragraph 53;
- customary fishing — for the reasons set out in this report and summarised in paragraph 73;
- commercial fishing — for the reasons set out in this report and summarised in paragraph 97.

AQUACULTURE DECISION REQUEST DETAILS

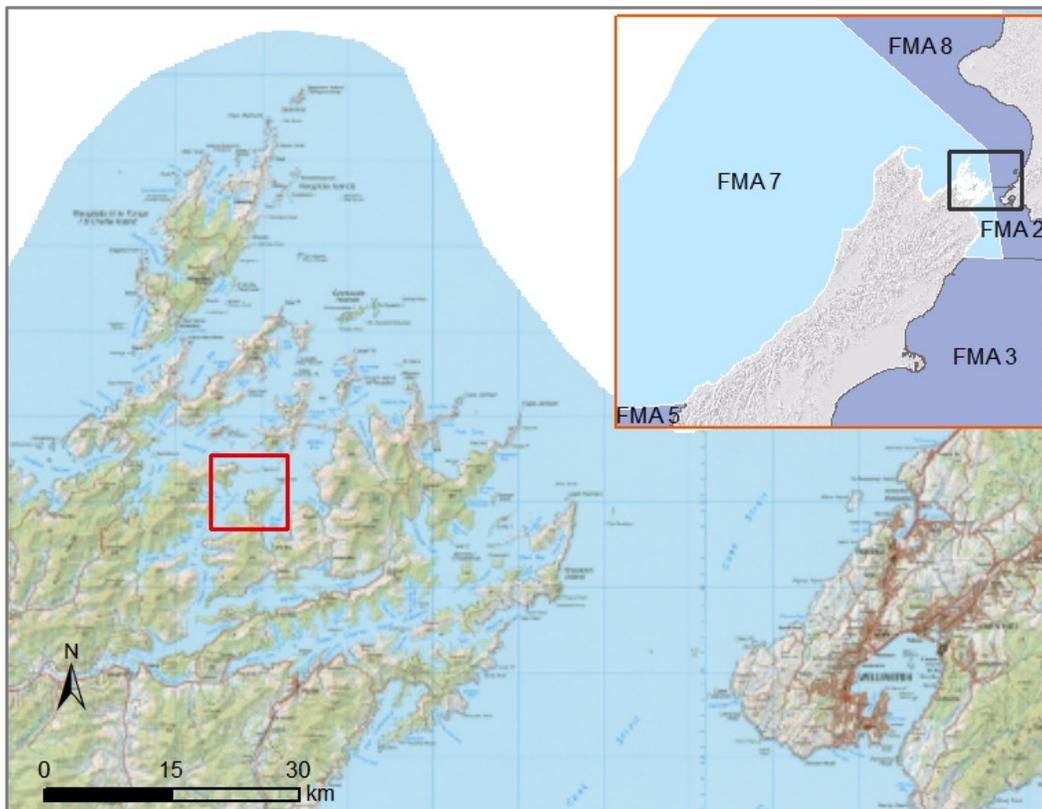
Regional Council:	Marlborough District Council (MDC)
Dates of Requests:	U140992 – 7 August 2015 U150097 – 27 August 2015
Coastal Permit Applicants:	U140992 – Just Mussels Limited U150097 – Marlborough Aquaculture Limited
Location of marine farm sites:	U140992 and U150097 – Popoure Reach Central Pelorus Sound, Marlborough Sounds
Size of farms:	U140992 – 2.82 hectares (ha) of new space, extending marine farm licence 68 (Li 68). Coastal permit U140992 encompasses the new space and Li 68, creating a total area of 7.32 ha. U150092 – 7.10 ha extension to existing marine farm permit 884 (MF 884) and marine farm permit 914 (MF 914)

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*.

Species to be farmed:	U140992 – 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>), Geoduck (<i>Panopea zelandica</i>) and algae (<i>Macrocystis pyrifera</i> , <i>Ecklonia radiata</i> , <i>Gracilaria</i> spp. and <i>Pterocladia lucida</i>) U150097 – Green-lipped mussels, blue mussels, scallops, dredge oysters and algae (<i>Macrocystis pyrifera</i> , <i>Ecklonia radiata</i> , <i>Gracilaria</i> spp. and <i>Pterocladia lucida</i>)
Farm structures:	U140992 and U150097 – Standard marine farm longlines and anchors with droppers, cages or racks

Location

3 Coastal permits U140992 and U150097 apply to two areas in Popoure Reach, Pelorus Sound, Marlborough Sounds (Map 1). The Marlborough Sounds are within Fisheries Management Area 7 (FMA7).



Map 12: Approximate location of the new areas authorised by coastal permits U140992 and U150097 in Popoure Reach (red square) in FMA7. (MPI, 2015).

² Disclaimer: Maps 1-7 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/>

Coastal permit U140992

4 Coastal permit U140992 is located at the northern end of Wilson Bay in Popoure Reach (Map 2). The new area of coastal permit U140992 is an offshore and alongshore extension to Li 68, forming an approximate “L” shape. The new area is generally greater than 200 m from shore, reducing to roughly 60 m at the southeast end.

5 A benthic survey by Brown (2014) showed the substrate beneath the new area of coastal permit U140992 is mud. An area of reef was observed approximately 15 m inshore of the southeast boundary, nearest to shore. Scallops were observed at moderate to high densities in the offshore western portion of the proposed extension. The water depth in the new area is around 18 m closest to shore and around 37 m at the deepest offshore corner.

6 Aside from Li 68, the closest existing marine farms to the new area of coastal permit U140992 are marine farm licence 27 (**Li 27**) and marine farm permit 223 (**MF 223**), around 50 m to the northwest.



Map 2: Location of coastal permit U140992, including new area (in red) and existing area (Li 68).

Coastal permit U150097

7 The area of coastal permit U150097 is located north of South-East Bay, near Capsize Point in Popoure Reach (Map 3). The new area of coastal permit U150097 is an offshore extension to MF 884 and MF 914 and forms a narrow band between 160 m and 260 m from shore (Map 3).

8 A benthic survey by Davidson (2014) showed the substrate beneath coastal permit U150097 is dominated by silt and clay, with natural shell material. Compared to the parent farm, Davidson (2014) recorded relatively few epibenthic species. Just one scallop and no horse mussels were observed. No hard substrates were recorded from within the coastal permit area. The water depth in

the area of coastal permit U150097 ranged from around 32 m at the northern and southern ends to around 42 m in the centre.

9 Aside from MF 884 and MF 914, the closest existing marine farms to coastal permit U150097 are marine farm permit 297 (**MF 297**) around 60 m to the south and marine farm permits 158 and 876 (**MF 158/MF876**) around 50 m to the north.



Map 3: Location of coastal permit U150097 (in red) and existing area (MF 884 and MF 914).

Structures

U140992

10 A total of 14 longlines will be contained in the entire area of coastal permit U140992 (the new area and Li 68) (Figure 1). The new area is likely to contain four longlines.

11 The longlines will range from 208-280 m long, with a total length of 3,535 m, and be spaced 15.77 m apart.

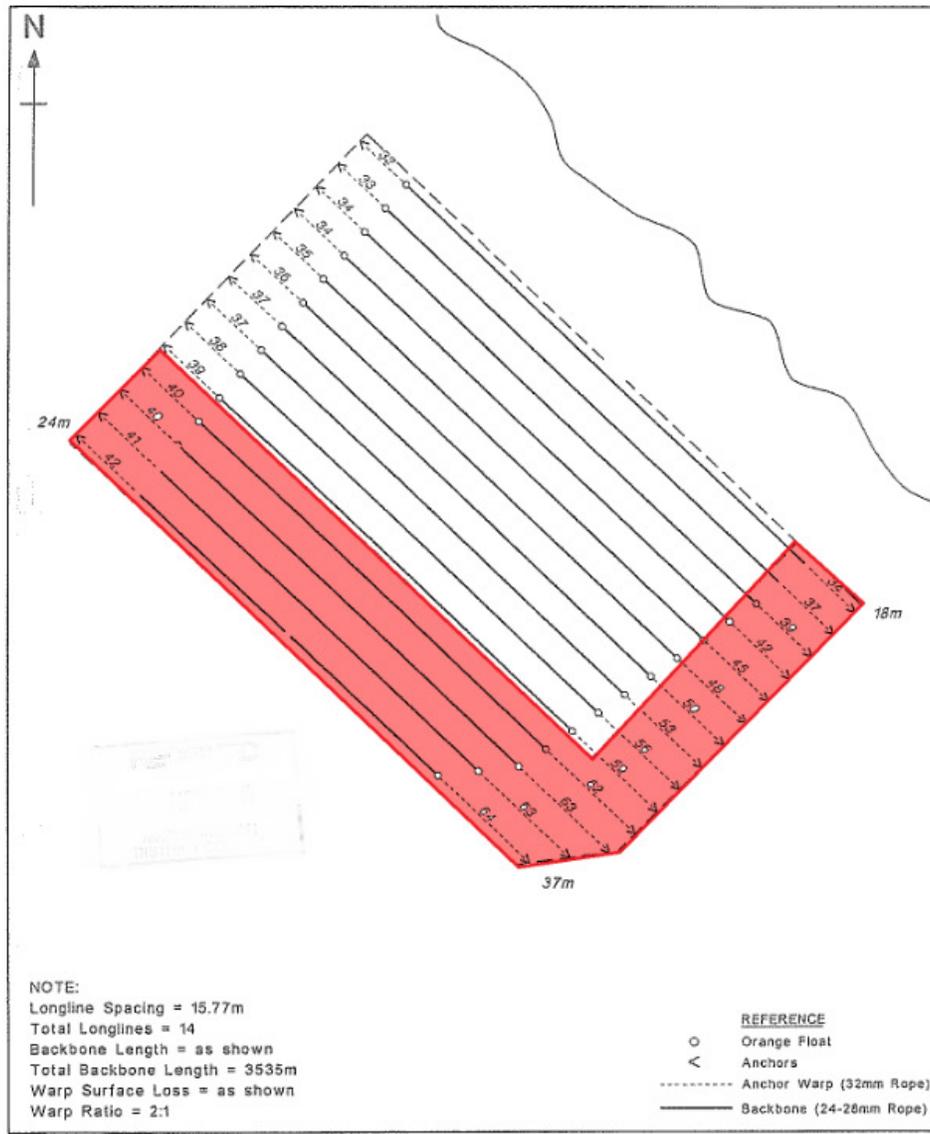


Figure 1: Structures diagram for coastal permit U140992.³ Longlines within the red area are those in the new area of coastal permit U140992.

U150097

12 The combined area of coastal permit U150097 and the parent farm (MF 884 and MF 914) will contain 43 longlines, in five blocks of 8-9 longlines (Figure 2). The area of coastal permit U150097 is likely to contain 2-3 longlines from each block.

13 The longlines will range from 86-151 m long, with a total length of 5,778 m. The spacing of the longlines has not been provided, but is estimated to be between 15-20 m, which is typical for mussel farms in the Marlborough Sounds.

³ Sourced from the MDC’s decision on coastal permit application U140992.

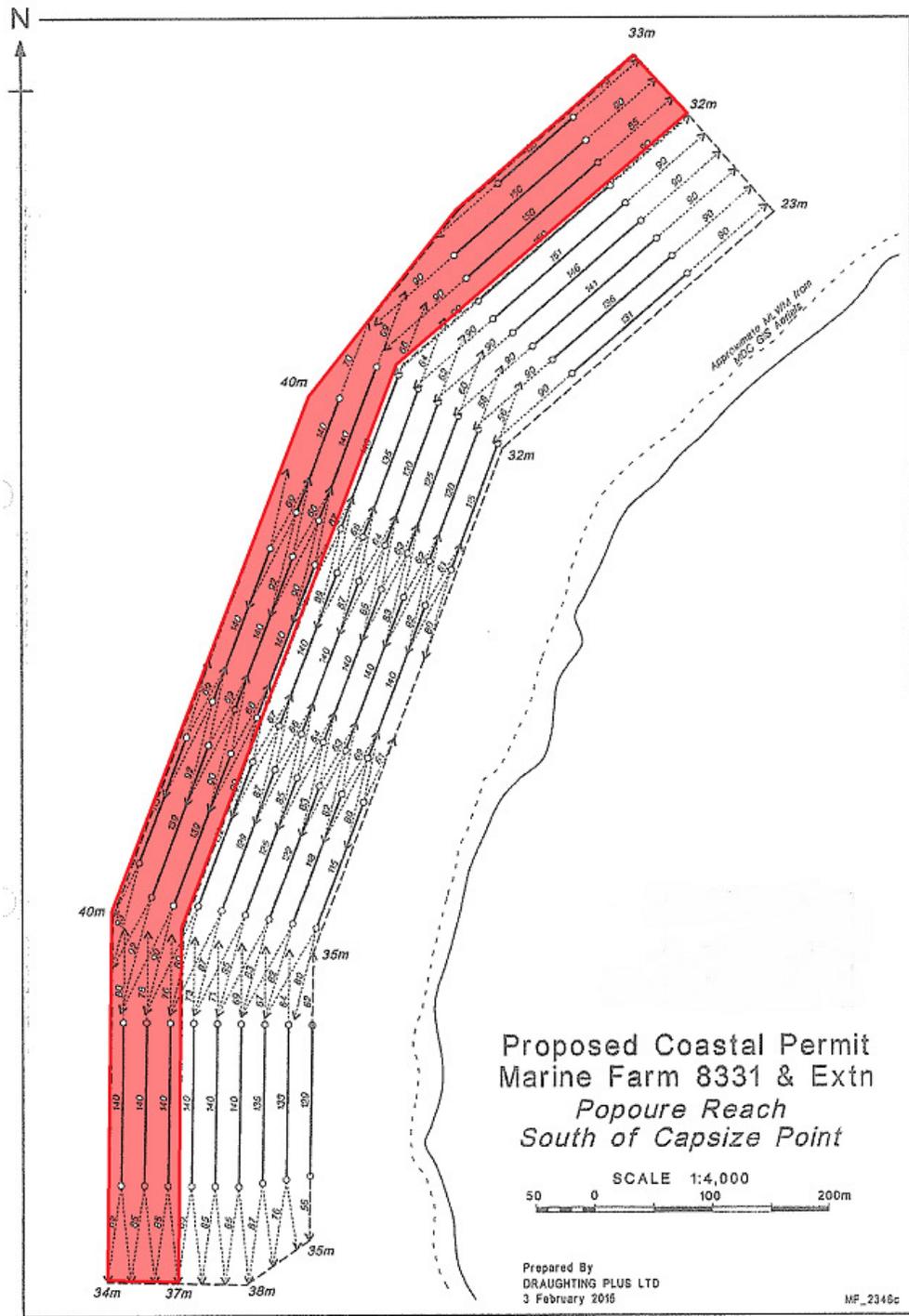


Figure 2: Structures diagram for coastal permit U150097 and MF 884 / MF 914.⁴
Longlines within the red area are those in the area of U150097.

Input from stakeholders

14 MPI publicised coastal permit application U140992 on its website on 16 December 2014 and coastal permit application U150097 on 18 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 areas. The closing dates for submissions to MPI were

⁴ Sourced from the MDC's decision on coastal permit application U150097.

4 February 2015 and 17 April 2015 respectively. MPI did not receive any submissions for either application.

STATUTORY CONTEXT

15 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).

16 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.

17 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).

18 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.

19 Section 186E(3) of the Fisheries Act⁵ 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.

20 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 these cases.

⁵ 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.

21 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.

22 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 permits U140992 and U150097.

23 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.

24 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*.

25 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).

26 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.

27 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

28 When making my aquaculture decisions 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.

29 This assessment relates to the 2.82 ha of new marine farming space authorised by coastal permit U140992 and 7.10 ha of new space authorised by coastal permit U150097.

Recreational fishing

Location of the coastal permit areas relative to fishing areas

30 I consider that the new areas of coastal permits U140992 and U150097 are located where there is likely to be a low level of recreational fishing by rod/line methods from boats and set netting. I also consider some dredging and rod/line fishing from shore could occur in the new area of coastal permit U140992.

31 Snapper and flounder are likely to be the main species caught in both areas, with scallops also likely to be caught in the new area of coastal permit U140992. Kahawai, dredge oyster, spotty, yellow-eyed mullet, spiny dogfish, barracouta, herring, jack mackerel, piper, stargazer, trevally, greyboy, gurnard, red cod, rig, sea perch, shark, stingray and tarakihi may also be caught in low numbers.

32 Available information on recreational fishing activity in Popoure Reach comprises:

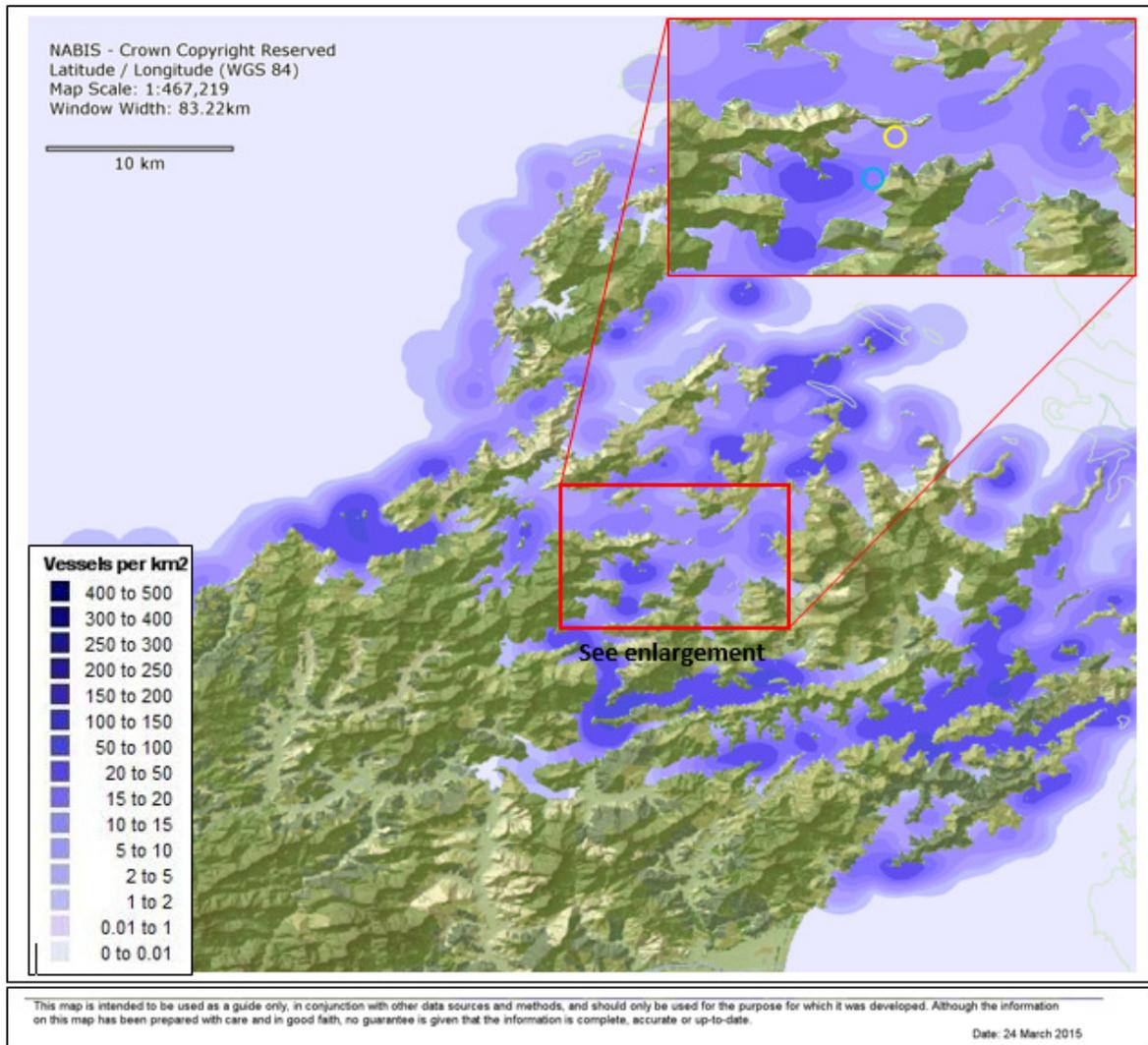
- information provided in submissions, if any;
- MPI information (eg, institutional knowledge, previous submissions); and
- fishing surveys.

33 No submissions on the new areas of coastal permits U140992 and U150097 were received from recreational fishers. However, submissions on the Area-by-Area assessment⁶ for this part of

⁶ Due to the large number of marine farm permit applications, the then Ministry of Fisheries developed the Area-by-Area assessment process. This grouped applications into discrete geographical blocks for consultation with stakeholders.

the Marlborough Sounds state that dredging for scallops, in water up to 30 m depth, is the main type of recreational fishing that occurs.

34 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 areas of coastal permits U140992 and U150097 (Map 4).



Map 4. Aerial survey results from 2006 of recreational fishing intensity (Davey *et al*, 2008).⁷ Approximate locations of the new areas of coastal permits U140992 (yellow circle in insert) and U150097 (blue circle in insert) are shown.

35 The recreational fishing survey identifies methods used, and species targeted and caught within zones in the Marlborough Sounds. Of the sampled fishing trips, 10.9% occurred in the survey zone containing Popoure Reach. Table 1 below summarises my assessment of the main methods used, and species caught in the new areas of coastal permits U140992 and U150097 based on the recreational fishing survey (Davey *et al.*, 2008), benthic surveys (Brown, 2014 and Davidson, 2014) and other information.

⁷ Map sourced from NABIS (MPI, 2015).

36 As shown, I consider that stationary and mobile rod/line methods from boats and set netting could be used in both coastal permit areas, with dredging and rod/line fishing from shore also possible in the new area of coastal permit U140992. Snapper and flounder are likely to be the main species caught in both areas, with scallops also likely to be caught in the new area of coastal permit U140992.

Table 1: Recreational fishing methods used and species caught at the new areas of coastal permits U140992 and U150097 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, drag netting/beach seining, set netting, shore fishing, hand gathering, rod/line from charter boat	Submissions on the Area by Area assessment covering Popoure Reach stated that recreational fishing is predominately for scallops, and in depths up to 30 m	<p>Depths at the sites are greater than those used for drag netting and hand gathering</p> <p>Except for a small part of the new area of coastal permit U140992, the sites are not accessible for shore fishing</p> <p>Longlining is prohibited and set netting is restricted by regulation at the sites⁸</p> <p>Other recreational fishing methods include dredging</p>	<p>Stationary and mobile rod/line methods from boats, and set netting could be used at both sites.</p> <p>Dredging and shore fishing could occur at the new area of coastal permit U140992</p>
Species caught (ordered by popularity)	Scallops, flounder, snapper, blue cod, kahawai, oyster, spotty, yellow-eyed mullet, spiny dogfish, barracouta, herring, jack mackerel, piper, stargazer, trevally, greyboy, gurnard, red cod, rig, sea perch, shark, stingray and tarakihi.		<p>No habitat typically favored by blue cod (ie, cobble/hard substrate/reef/algae beds) was observed in the benthic surveys of the new areas</p> <p>Scallops were observed in the benthic survey for the new area of coastal permit U140992 (Brown, 2014)</p> <p>Depths at the area of coastal permit U150097 are deeper than those typically productive for scallops</p> <p>Depths at both areas are shallower than those typically productive for hapuku</p>	<p>Flounder, snapper, kahawai, oyster, spotty, yellow-eyed mullet, spiny dogfish, barracouta, herring, jack mackerel, piper, stargazer, trevally, greyboy, gurnard, red cod, rig, sea perch, shark, stingray and tarakihi.</p> <p>Scallops could be caught at the new area of coastal permit U140992</p>

⁸ Regulations 110 and 111 of the Amateur Regulations.

Exclusion of fishing

37 I consider the aquaculture activities proposed for the new areas of coastal permits U140992 and U150097 will exclude some of the recreational fishing methods that may be used in these areas.

38 Of the recreational fishing likely to occur in the new areas of coastal permits U140992 and U150097, it is likely that set netting, dredging, shore fishing and drift fishing or trolling by rod/line would be excluded.

39 Anecdotal information from recreational fishers⁹ suggests that spaces between longlines of mussel farms in the Marlborough Sounds are too narrow for set netting and trolling without risk of entanglement.

40 I also consider that drift fishing, shore fishing and dredging are unlikely to occur within marine farms because of risk of entanglement. Any rod/line fishing from shore will be excluded from the small area of U140992 where it is currently possible. 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.

Availability of other fishing areas

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

42 The wider Marlborough Sounds is subject to area closures and various species and method restrictions, particularly for set netting and longlining.¹⁰ These restrictions limit the availability of alternative areas outside of Popoure Reach for recreational fishers able to fish further afield. However, as the new areas of coastal permits U140992 and U150097 are also subject to the same longlining prohibition and set netting restriction, these types of fishing are not affected by the proposed aquaculture activities.

43 I consider alternative areas in Popoure Reach and the wider Marlborough Sounds could absorb fishing by most fishers who fish the new areas of coastal permits U140992 and U150097, because:

- mud and silt/clay (the substrates beneath the sites) are widespread in the Marlborough Sounds and no information suggests the sites offer fishing opportunities (eg, habitat, species, methods) specific to them;
- the same methods as those used at the new areas could be used elsewhere in Popoure Reach or most 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

44 I consider the aquaculture activities proposed for the new areas of coastal permits U140992 and U150097 will result in a minimal, if any, increase in the cost of recreational fishing.

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

⁹ FMA7 Recreational Fishing Forum, 27 May 2013.

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

Likely effect on fishing

46 I consider the likely effect on recreational fishing from the aquaculture activities proposed in the new areas of coastal permits U140992 and U150097 will be small.

47 There is little quantitative data available on recreational catch taken from the new coastal permit areas, Popoure Reach, or the Marlborough Sounds. Recreational fishers are not required to report catch or fishing locations. MPI is therefore unable to estimate an average annual recreational catch, or proportion of recreational catch, likely to be affected by the proposed aquaculture activities. Rather, MPI can only make an assessment of the effect of the proposed aquaculture activities on recreational fishing based on qualitative information.

48 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 sites; and
- alternative areas within Popoure Reach and the wider Marlborough Sounds could absorb the recreational fishing displaced from the sites.

Cumulative effects

49 I consider effects from the aquaculture activities proposed for the new areas of coastal permits U140992 and U150097, added to the effects of existing aquaculture in the Marlborough Sounds, will not have an undue adverse effect on recreational fishing.

50 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 areas for fishing.

51 I acknowledge there is already a large amount (approximately 3,600 ha) of authorised aquaculture space in the Marlborough Sounds. Approximately 300 ha of this authorised aquaculture space is in central Pelorus Sound, of which approximately 145 ha is in Popoure 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 recreational fishing areas.

52 As noted, I consider the adverse effects of the new areas of coastal permits U140992 and U150097 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 areas will not cause the cumulative effect on recreational fishing to become undue.

Conclusion on effects on recreational fishing

53 I am satisfied the aquaculture activities proposed within the new areas of coastal permits U140992 and U150097 will not have an undue adverse effect on recreational fishing because:

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

- the additional adverse effect of the new coastal permit areas 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 areas relative to fishing areas

54 I consider that the new areas of coastal permits U140992 and U150097 are located where there is likely to be a small amount of customary fishing for flatfish and snapper by rod/line methods from boats and set netting. I also consider some scallop dredging and rod/line fishing from shore could occur in the new area of coastal permit U140992.

55 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 areas.¹¹ While there are no existing customary management areas in the Marlborough Sounds (eg, taiapure-local fishery or mātaītai reserves), the eight iwi have jointly notified their Tangata Tiaki/Kaitiaki for an area/rohe moana that encompasses the new coastal permit areas. Although, I note the notification is in dispute.¹²

56 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.

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

58 Table 2 below summarises my assessment of the main methods used, and species caught in the new areas of coastal permits U140992 and U150097 based on the customary authorisations and other available information. As shown, I consider it likely that rod/line methods from boats and set netting are the main methods used at the site and that snapper and flatfish are likely to be the main species taken. I also consider dredging for scallops and rod/line fishing from shore is also possible in the new area of coastal permit U140992.

¹¹ 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 Rangitira 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.

¹² 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 areas of coastal permits U140992 and U150097 based on the available information.

	Source of information			
	Customary authorisations	Submissions	Other information	My assessment
Methods used (ordered by popularity)	N/A		Methods used by recreational fishers (and therefore potentially customary fishers) at the new coastal permit areas are stationary and mobile rod/line fishing from boats, set netting, drag netting/beach seining, shore fishing and dredging	Stationary and mobile rod/line fishing from boats and set netting could be used at both sites Dredging and shore fishing could be used at the new area of coastal permit U140992
Species caught (ordered by popularity)	Blue cod, paua, scallops, rock lobster, butterfish, blue moki, flatfish, snapper, hapuku and Pacific oyster were the species in authorisations for Pelorus Sound	No submissions on customary fishing activity were received for U140992 and U150097, or parent farms Li 68 and MF 884 / MF 914	No habitat (ie, cobble/hard substrate/reef/algae beds) typically favored by blue cod, butterfish, blue moki, paua, rock lobster or Pacific oysters was observed in the benthic surveys of the new areas Scallops were observed in the benthic survey for the new area of coastal permit U140992 (Brown, 2014) Depths at the new area of coastal permit U150097 are deeper than those typically productive for scallops Depths at both sites are shallower than those typically productive for hapuku	Snapper and flatfish could be caught by customary fishers in the new coastal permit areas Scallops could be caught by customary fishers at the new area of coastal permit U140992

Exclusion of fishing

59 I consider the aquaculture activities proposed for the new areas of coastal permits U140992 and U150097 will exclude some of the customary fishing methods that may be used in the areas.

60 Of the customary fishing methods likely to occur in the new coastal permit areas it is likely that set netting, dredging, shore fishing 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 and trolling without risk of entanglement. And, as noted, I consider that drift fishing, shore 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 would be excluded from the site.

Availability of other fishing areas

61 I consider there are alternative areas for customary fishing in Popoure Reach and the wider Marlborough Sounds.

62 Apart from the Long Island Marine Reserve and Fighting Bay¹³, all of the Marlborough Sounds is available for customary fishing under regulations 50 and 51 of the Amateur Regulations. A large number of alternative areas are therefore available for customary fishing that may be displaced from the new areas of coastal permits U140992 and U150097.

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

- mud and silt/clay (the substrates beneath the sites) are widespread in the Marlborough Sounds and no information suggests the sites offer fishing opportunities (eg, habitat, species, methods) specific to them;
- the same methods as those used at the coastal permit areas could be used elsewhere in Popoure Reach 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

64 I consider the aquaculture activities proposed for the new areas of coastal permits U140992 and U150097 will result in a minimal, if any, increase in the cost of customary fishing.

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

Likely effect on fishing

66 I consider the likely effect on customary fishing from the aquaculture activities proposed in the new areas of coastal permits U140992 and U150097 will be relatively small.

67 As noted, there is no available quantitative data on customary catch taken from the new coastal permit areas. 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,

¹³ *The Marine Reserves Act 1971* and the *Submarine Cables and Pipelines Protection Act 1996* respectively.

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

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

- the areas excluded to fishers are small;
- only a small amount of customary fishing is likely to occur at the sites; and
- alternative areas within Popoure Reach and the wider Marlborough Sounds could absorb the customary fishing displaced from the new areas of coastal permits U140992 and U150097.

Cumulative effects

69 I consider the effects from the aquaculture activities proposed for the new areas of coastal permits U140992 and U150097, added to the effects of existing aquaculture in the Marlborough Sounds, will not have an undue adverse effect on customary fishing.

70 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 new coastal permit areas for customary fishing and the amount of aquaculture activities already authorised in the relevant customary fishery.

71 As noted, there are approximately 3,600 ha of authorised aquaculture space in the Marlborough Sounds. Around 300 ha of this authorised aquaculture space is in central Pelorus Sound, of which around 145 ha is in Popoure Reach. I consider the authorised aquaculture space in Popoure Reach 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.

72 As noted, I consider the adverse effects of the new areas of coastal permits U140992 and U150097 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 areas will not cause the cumulative effect on customary fishing to become undue.

Conclusion on effects on customary fishing

73 I am satisfied the aquaculture activities proposed within the new areas of coastal permits U140992 and U150097 will not have an undue adverse effect on customary fishing because:

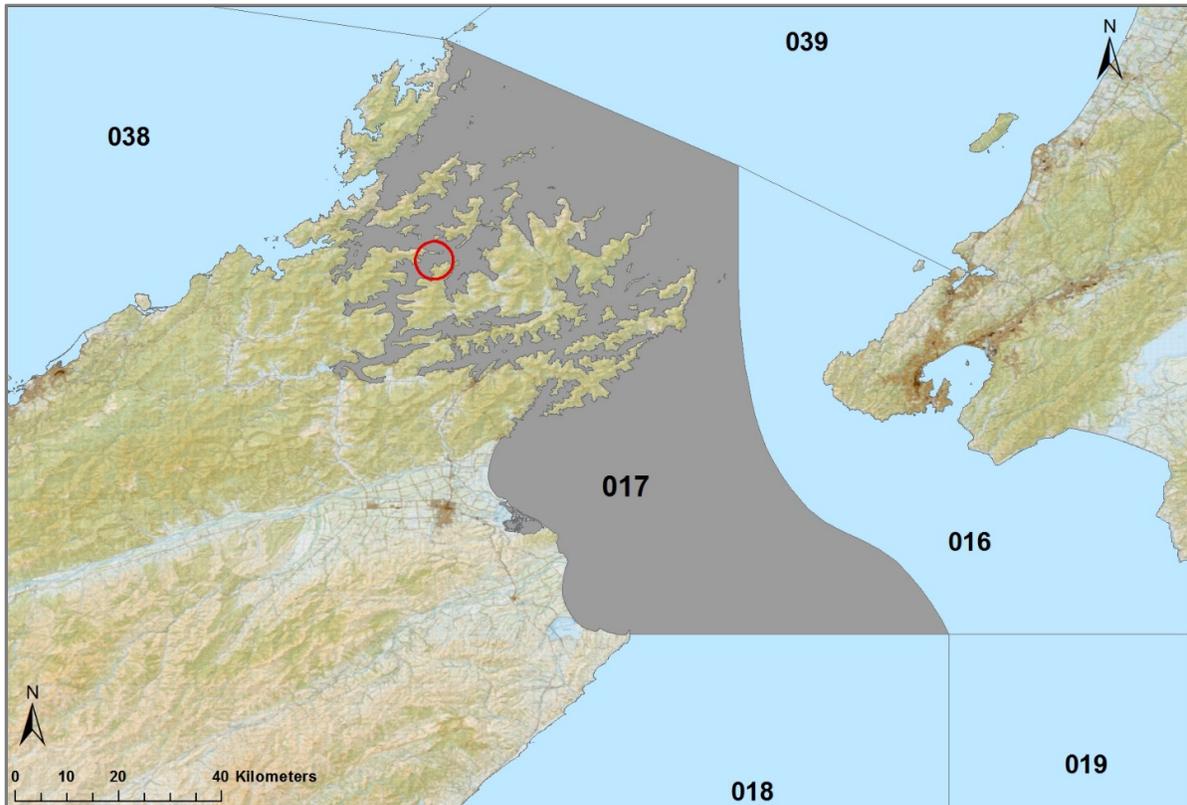
- anchored rod/line fishing could still be used in the new coastal permit areas;
- there are other areas available for customary fishing in Popoure Reach and the wider Marlborough Sounds;
- occupation of the new coastal permit areas will result in a minimal, if any, increase in the cost of customary fishing; and
- the additional adverse effect of the new coastal permit areas 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 areas relative to fishing areas

74 I consider the new areas of coastal permits U140992 and U150097 are located where there is little commercial fishing, if any.

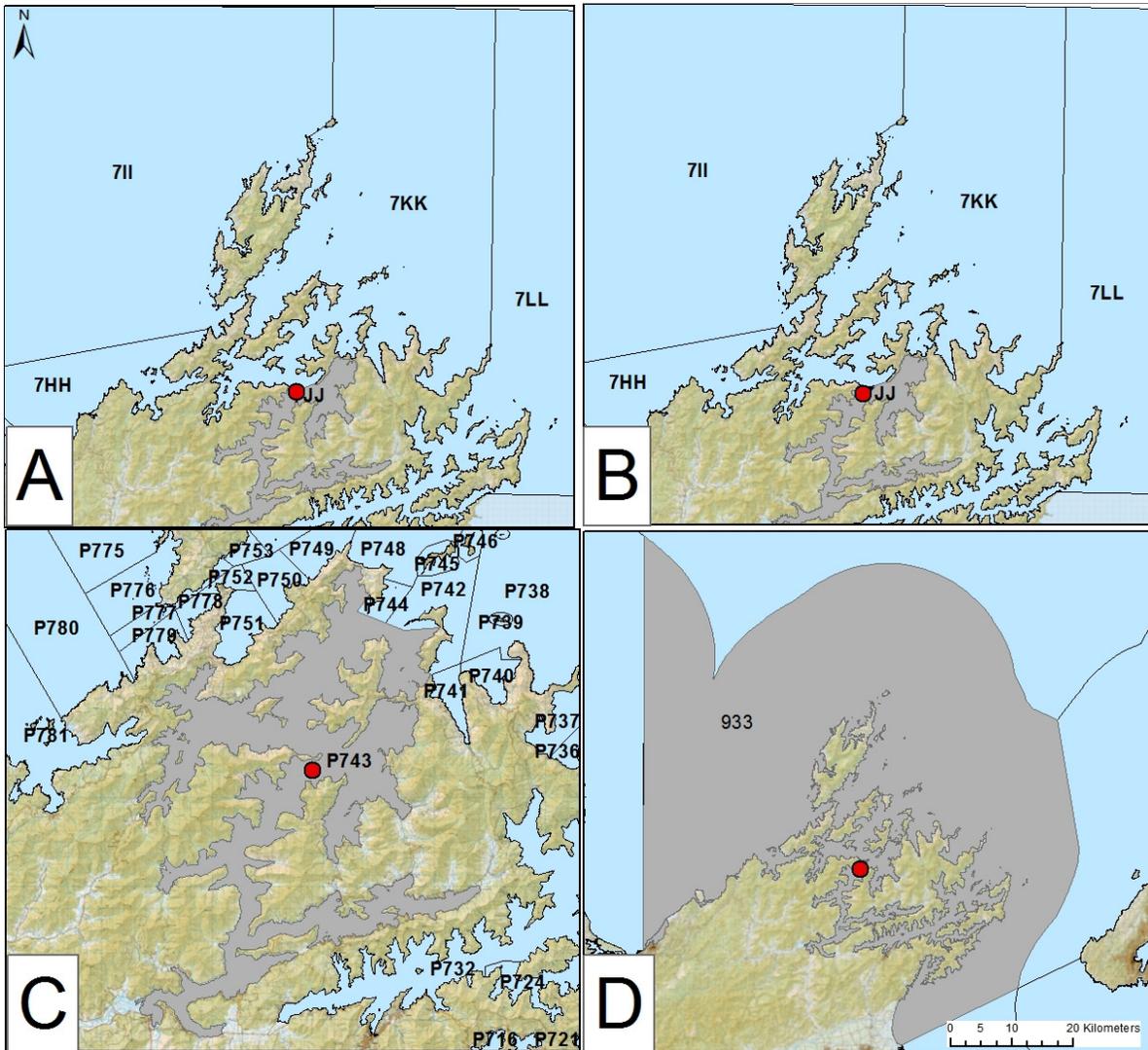
75 Historically, most commercial fishing has been reported by statistical area. The new areas of coastal permits U140992 and U150097 are located in general statistical area 017 (SA017), which extends from d'Urville Island to Cape Campbell (4,149 km²) (Map 5).



Map 5: General statistical area SA017 that encompasses the new areas of coastal permits U140992 and U150097 (approximate location in red circle).¹⁴

76 Scallops, oysters, rock lobster and paua are reported by species-specific statistical areas rather than by general statistical area. The new areas of coastal permits U140992 and U150097 fall within scallop statistical area 7JJ, oyster statistical area 7JJ, paua statistical area P743 and rock lobster statistical area 933 (Maps 6A, 6B, 6C and 6D).

¹⁴ Hillshade imagery produced by Geographx. Sourced from www.koordinates.com under CC-By. <http://creativecommons.org/licenses/by/3.0/nz/>



Map 6: Species-specific statistical areas that encompass the new areas of coastal permits U140992 and U150097 (approximate location as red circle). A – Scallop statistical area 7JJ. B – Oyster statistical area 7JJ. C – Paua statistical area P743. D – Rock lobster statistical area 933.¹⁵

77 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 methods¹⁶ 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 methods¹⁷ have had to report to within 2 nm.¹⁸ 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.

78 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

¹⁵ Hillshade imagery produced by Geographx. Sourced from www.koordinates.com under CC-By. <http://creativecommons.org/licenses/by/3.0/nz/>

¹⁶ Bottom long lining, surface long lining or trot lines

¹⁷ Set-netting or drift-netting

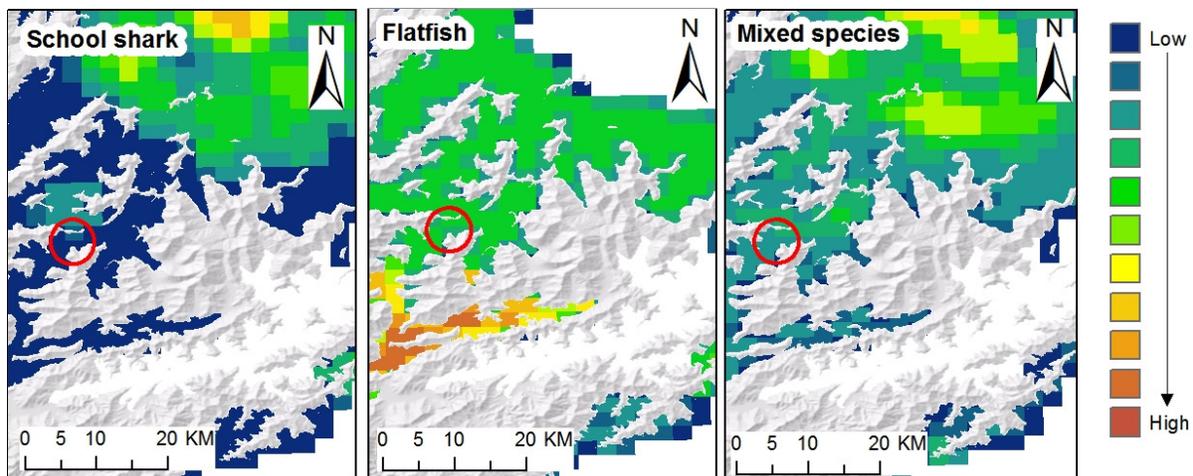
¹⁸ *Fisheries (Reporting) Regulations 2001*.

scale position data, which is the best information available from fisheries statistics. Although, knowledge about species and information from commercial fishers can also help to determine whether specific types of fishing are likely to occur in an area.

79 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 areas of coastal permits U140992 and U150097. Map 7 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.

80 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 Map 7.

81 As noted in Table 3, the new areas of coastal permits U140992 and U150097 are located where Danish seining, trawling, long lining, and the use of box nets and teichi nets is prohibited.



Map 7: Fishing intensity of set net fishery segments. The red circle indicates the general location of the new coastal permit areas.

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) 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
Flatfish (FLA7), Set Net	017	72%	155	6%	Yes	
Mixed fishery, Set Net	017	71%	63	N/A	Yes	
Sea cucumber (SCC7A), Diving	017	0%	33	90%	Yes	
School shark (SCH7), Set Net	017	98%	15	14%	Yes	
Other species, Diving	017	0%	13	N/A	Yes	
Inshore Mix <80m depth, Trawl	017	98%	204	N/A	No	This type of fishing is prohibited in the coastal permit areas ²²
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 coastal permit areas
Hoki (HOK1), Trawl	017	100%	421	22%	No	This type of fishing is prohibited in the coastal permit areas
Scallops (SCA7), Dredge	7KK	0%	218	47%	No	MPI consulted directly with Challenger and did not receive any information indicating commercial scallop dredging areas overlap the area of coastal permit U150097. This type of fishing is unlikely to occur in the area of coastal permit U140992
Ghost shark (GSH7), Trawl	017	99%	214	57%	No	This type of fishing is prohibited in the coastal permit areas
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 coastal permit areas
Butter fish (BUT7), Set Net	017	40%	183	27%	No	Butterfish are a reef dwelling, algae feeding species. The coastal permit areas do not overlap these habitats
Red Cod (RCO7), Trawl	017	100%	176	18%	No	This type of fishing is prohibited in the coastal permit areas
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	The coastal permit areas are too shallow for targeting these species

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.

²² Regulation 7 of *Fisheries (Challenger Area Commercial Fishing) Regulations 1986*.

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
School shark (SCH7), Long Lining	017	23%	95	14%	No	This type of fishing is prohibited in the coastal permit areas ²³
Spiny Dogfish (SPD7), Trawl	017	99%	81	24%	No	This type of fishing is prohibited in the coastal permit areas
Flatfish (FLA7), Trawl	017	99%	68	6%	No	This type of fishing is prohibited in the coastal permit areas
Gurnard (GUR7), Trawl	017	99%	62	8%	No	This type of fishing is prohibited in the coastal permit areas
Barracouta (BAR7), Trawl	017	99%	62	2%	No	This type of fishing is prohibited in the coastal permit areas
Tarakihi (TAR7), Trawl	017	100%	54	17%	No	This type of fishing is prohibited in the coastal permit areas
Blue cod (BCO7), Hand Lining	017	0%	36	40%	No	This type of fishing is prohibited in the coastal permit areas ²⁴
Surf clams, Dredge (PDO7)	017	0%	34	0%	No	Tuatua are generally found in sandy intertidal zones. The coastal permit areas do 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 areas
Snapper (SNA7), Trawl	017	98%	17	10%	No	This type of fishing is prohibited in the coastal permit areas
Mixed fishery, Long Lining	017	82%	17	N/A	No	This type of fishing is prohibited in the coastal permit areas
Mixed fishery, Beach Seine	017	0%	13	N/A	No	The coastal permit areas are too deep for this fishing method and are offshore of existing marine farms.
Blue Warehou (WAR7), Trawl	017	100%	11	6%	No	This type of fishing is prohibited in the coastal permit areas
Mixed fishery, Hand Lining	017	0%	10	N/A	No	This type of fishing is prohibited in the coastal permit areas

²³ Regulation 2E of *Fisheries (Challenger Area Commercial Fishing) Regulations 1986*.

²⁴ Regulation 2E of *Fisheries (Challenger Area Commercial Fishing) Regulations 1986*.

Exclusion of fishing

82 I consider the aquaculture activities proposed in the new areas of coastal permits U140992 and U150097 will exclude only a very small amount of commercial fishing, if any.

83 The exclusion zones for commercial fishing methods in this assessment (as identified in Table 3) are the new areas of coastal permits U140992 and U150097 (ie, 2.82 ha and 7.10 ha, respectively). This is because the methods could occur immediately adjacent to, but not within, the new coastal permit areas.

Availability of other fishing areas

84 I consider that any commercial fishing displaced from the new areas of coastal permits U140992 and U150097 could occur in other areas.

85 There are commercial closures or restrictions in other parts of SA017 and the relevant QMAs or FMA7 for various species, methods, time periods, fishing gear, or a combination of these.²⁵ However, I consider alternative areas in Popoure Reach, other parts of SA017 and the relevant QMAs or FMA7 could absorb any commercial fishing displaced from the new coastal permit areas because:

- the same methods as those possibly used at the new coastal permit areas could be used elsewhere in Popoure 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 areas are typically found over mud substrate which is common throughout the rest of Popoure Reach and elsewhere in SA017 and the relevant QMAs or FMA7; and
- the areas excluded to commercial fishing are relatively small.

86 I recognise areas of authorised aquaculture space have reduced the availability of other commercial fishing areas over time. As noted, there are around 300 ha of authorised aquaculture space in central Pelorus Sound, of which approximately 145 ha is in Popoure Reach. 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

87 I consider that the aquaculture activities proposed in the new areas of coastal permits U140992 and U150097 will not increase the cost of commercial fishing.

88 While the new coastal permit areas 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 areas will only exclude small areas from commercial fishing and there are equally productive fishing grounds available nearby.

Likely effect on fishing

89 I consider the aquaculture activities proposed in the new areas of coastal permits U140992 and U150097 will only have a small adverse effect on any commercial fishery, if any.

90 The amount of fishing effort estimated to be displaced by the activities proposed in the new areas of coastal permits U140992 and U150097 is negligible. The new coastal permit areas would

²⁵ The *Marine Reserves Act 1971*, *Fisheries (Challenger Area Commercial Fishing) Regulations 1986* and *Fisheries (Commercial Fishing) Regulations 2001* contain closures and restrictions.

each affect less than 1 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 zones²⁶ of the new coastal permit areas. 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.

91 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.

92 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.

93 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 areas would be lost from the affected fisheries and no new catch would be available from the vacated areas.

Cumulative effects

94 I consider the addition to the cumulative effect on commercial fishing from the aquaculture activities proposed in the new areas of coastal permits U140992 and U150097 is negligible.

95 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 areas of coastal permits U140992 and U150097, the cumulative effect has previously been assessed as a maximum of approximately 1.6% effect on any fishery and not undue.

96 As noted, the new coastal permit areas would each affect less than 1 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

97 I am satisfied the aquaculture activities proposed within the new areas of coastal permits U140992 and U150097 will not have an undue adverse effect on commercial fishing because:

- not all commercial fishing methods used in the areas would be excluded;
- there are alternate fishing grounds in Popoure Reach, SA017, and the relevant QMAs or FMA7;
- occupation of the new coastal permit areas will result in a minimal, if any, increase in the cost of commercial fishing;
- effects on commercial fishing catch will only be very small; and

²⁶ The “exclusion zone” used for the methods assessed was the new coastal permit areas for all permitted methods.

- 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

98 I am satisfied – based on all relevant information available to me – the activities proposed for coastal permit area U140992 will not have an undue adverse effect on:

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

99 Accordingly, my decision is a determination for coastal permit U140992 with regard to:

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

100 The area of the determination on recreational, customary and commercial fishing is 2.82 ha comprising an area with the following coordinates (NZTM2000):

<u>Point</u>	<u>Easting</u>	<u>Northing</u>
1	1677538.46	5453453.49
2	1677583.23	5453500.62
3	1677800.74	5453294.01
4	1677904.05	5453402.76
5	1677937.40	5453371.08
6	1677813.78	5453246.78
7	1677762.86	5453240.34

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



David Scranley
Spatial Allocations Manager
Ministry for Primary Industries

Dated this 7th September 2015

Aquaculture decision

102 I am satisfied – based on all relevant information available to me – the activities proposed for coastal permit area U150097 will not have an undue adverse effect on:

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

103 Accordingly, my decision is a determination for coastal permit U150097 with regard to:

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

104 The area of the determination on recreational, customary and commercial fishing is 7.10 ha comprising an area with the following coordinates (NZTM2000):

<u>Point</u>	<u>Easting</u>	<u>Northing</u>
1	1678018.48	5451007.21
2	1678063.54	5450955.62
3	1677810.71	5450734.80
4	1677631.77	5450259.17
5	1677626.36	5449953.94
6	1677566.37	5449955.00
7	1677571.96	5450270.58
8	1677739.44	5450715.75
9	1677866.65	5450874.60

105 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 7th September 2015

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