



21 August 2015

AQUACULTURE DECISION REPORT — WAIHEKE MUSSEL COMPANY LIMITED, COASTAL PERMIT R/REG/2013/2442 (PERMIT 41937), AWAKIRIAPA BAY, WAIHEKE ISLAND

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 R/REG/2013/2442 (Permit 41937) 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 65;
- commercial fishing — for the reasons set out in this report and summarised in paragraph 89.

AQUACULTURE DECISION REQUEST DETAILS

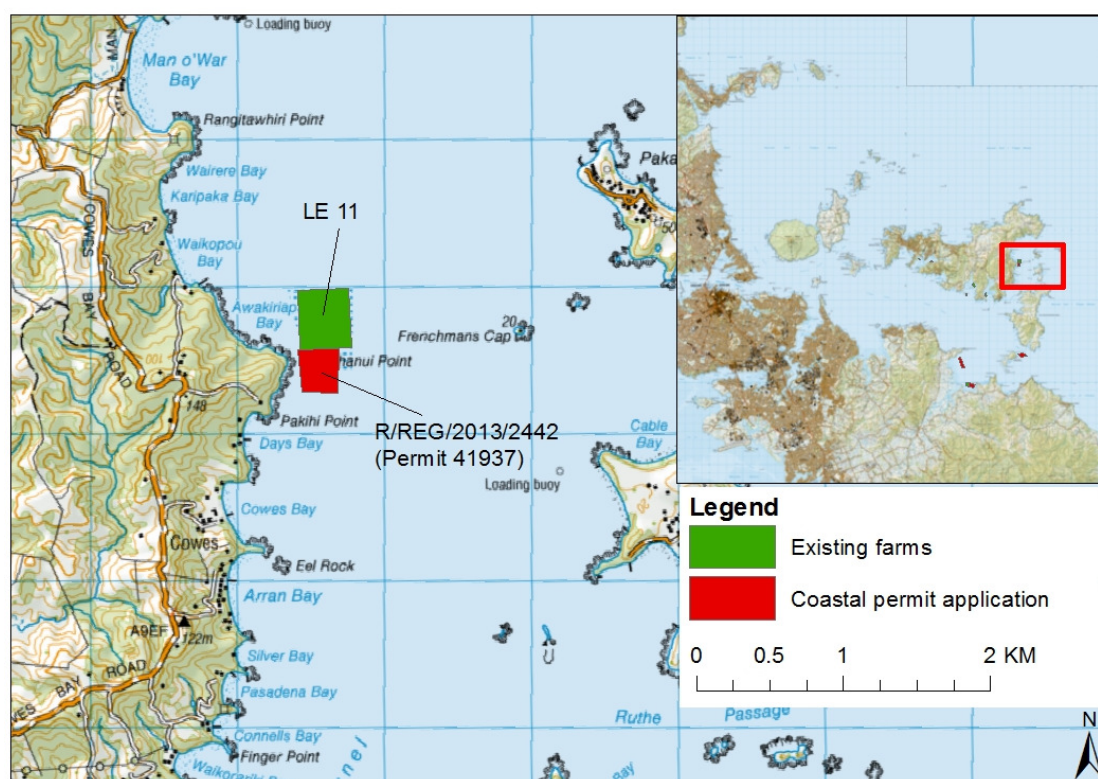
Regional Council:	Auckland Council (AC)
Date of Request:	24 July 2015
Coastal Permit Applicant:	Waiheke Mussel Company Limited
Location of marine farm site:	Awakiriapa Bay, Waiheke Island
Size of farm:	7.96 hectares (ha) of new space, extending marine farming lease 11 (Le 11).
Species to be farmed:	Green-lipped mussels (<i>Perna canaliculus</i>)
Farm structures:	Standard marine farm longlines and anchors with droppers

Location

3 Coastal permit R/REG/2013/2442 (Permit 41937) (**coastal permit 41937**) applies to an area at Awakiriapa Bay, off the eastern side of Waiheke Island (Map 1). Waiheke Island is within Fisheries Management Area 1 (**FMA1**) (Map 2).

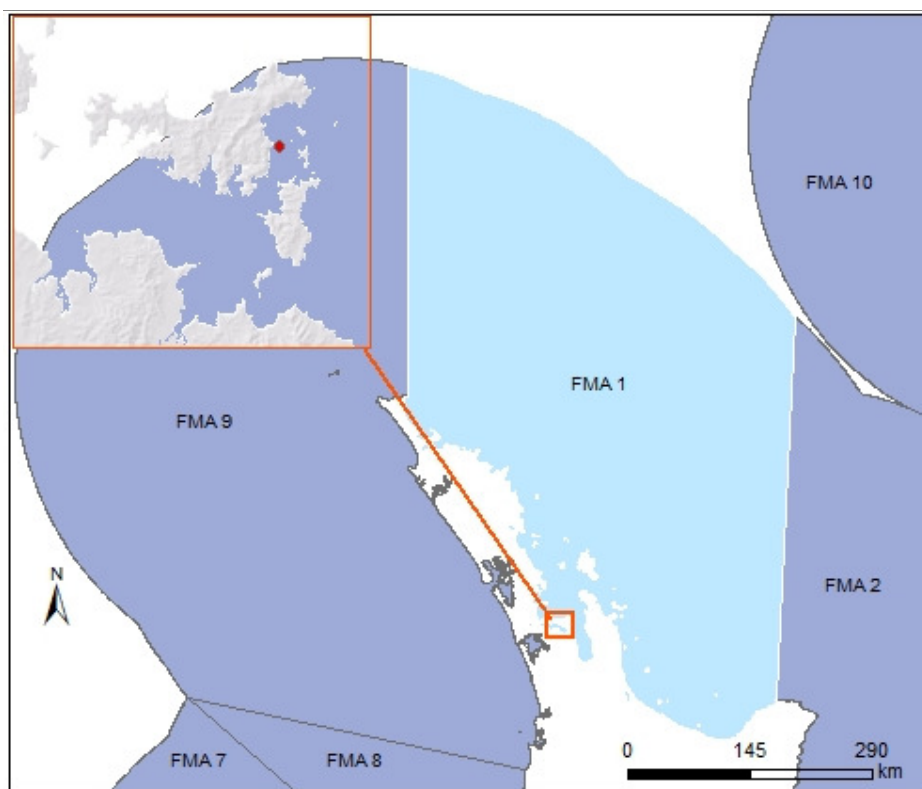
¹ Acting under authority delegated to me by the Director-General of the Ministry for Primary Industries (**MPI**) in accordance with section 41 of the *State Sector Act 1988*.

4 Aside from Le 11, there are no other marine farms near the area of coastal permit 41937. There are only five other existing marine farms around Waiheke Island. These are on the Island's southern side.



Map 12: Location of the area authorised by coastal permit 41937 at Awakiriapa Bay, Waiheke Island (MPI, 2015).

² Disclaimer: Maps 1-7B and all information accompanying them are intended to be used as guides only, in conjunction with other data sources and methods, and should only be used for the purpose for which they were developed. The information shown in the maps is based on a summary of data obtained from various sources. While all reasonable measures have been taken to ensure the accuracy of the maps, MPI: (a) gives no warranty or representation in relation to the accuracy, completeness, reliability or fitness for purpose of the maps; and (b) accepts no liability whatsoever in relation to any loss, damage or other costs relating to any person's use of the maps, including but not limited to any compilations, derivative works or modifications of the maps. The maps are subject to Crown copyright administered by Ministry for Primary Industries (MPI), and are licensed for general use under the Creative Commons Attribution 3.0 New Zealand licence (<http://creativecommons.org/licenses/by/3.0/nz/>). Crown copyright ©. NZ topo data. Sourced from Land Information New Zealand under CC-By. <http://creativecommons.org/licenses/by/3.0/nz/>



Map 2: Location of the area of coastal permit 41937 (red circle) within FMA1.

5 The area of coastal permit 41937 is approximately 150-200 m from shore at its closest point. A benthic survey by Wong (2009) showed:

- the shoreward area of coastal permit 41937 is less than 5 m deep with a substrate of gravels.
- the bulk of the remaining area of coastal permit 41937 ranges from 5-10 m deep with a substrate of gravels.
- a small offshore area of coastal permit 41937 may be 10-15 m deep and is likely to have a gravel or gravel/mud substrate.

Structures

6 A farm layout plan for coastal permit 41937 is yet to be drafted but the coastal permit application states that longlines will run in a north/south direction, be approximately 140 m long, and be spaced around 19 m apart.

Input from stakeholders

7 MPI publicised the application for coastal permit 41937 on its website on 16 June 2014. This gave persons and organisations potentially affected by the proposed aquaculture activities an opportunity to provide information on their fishing activities at the coastal permit area. The closing date for submissions to MPI was 31 July 2014. MPI did not receive any submissions.

8 Under section 186D(3) of the Fisheries Act, on 16 June 2014, MPI consulted with Ngāti Whanaunga³ on whether the proposed activities would affect customary fishing within their rohe boundaries. This was in response to a formal request by Ngāti Whanaunga for a consultation.

9 The closing date for Ngāti Whanaunga to provide information to MPI was 31 July 2014. MPI received no submissions in response to the consultation.

STATUTORY CONTEXT

10 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).

11 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.

12 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).

13 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.

14 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.

³ The area of coastal permit 41937 falls within the rohe boundaries of Ngāti Whanaunga.

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.

15 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.

16 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.

17 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 41937.

18 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.

19 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*.

20 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).

21 The *Fisheries (Kaimoana Customary Fishing) Regulations 1998* (**the Kaimoana 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 Kaitiaki/Tiaki, 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.

22 The Kaimoana Regulations and regulation 50 and 51 of the *Fisheries (Amateur Fishing) Regulations 2013* (**the Amateur Regulations**) provide for Tangata Kaitiaki/Tiaki 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 Kaimoana 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

23 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.

24 This assessment relates to the 7.96 ha of new marine farming space authorised by coastal permit 41937.

Recreational fishing

Location of the coastal permit area relative to fishing areas

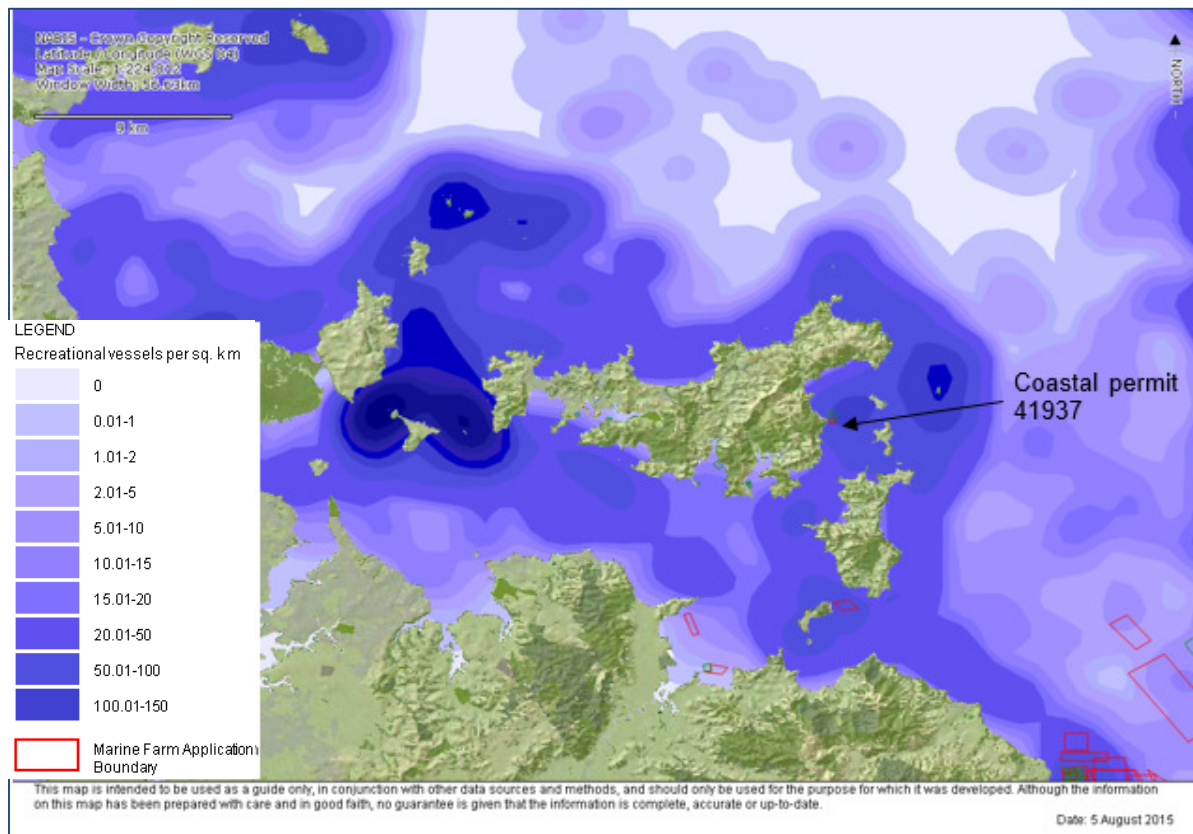
25 I consider the area of coastal permit 41937 is located where there is likely to be a moderate amount of recreational fishing, predominantly by rod/line methods from private and charter boats, and set netting. I also consider that snapper and kahawai are the main species targeted and caught.

26 Available information on recreational fishing activity around Waiheke Island comprises:

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

27 No submissions on the area of coastal permit 41937 were received from recreational fishers, and there are no recent submissions on other marine areas around Waiheke Island. However, in the Assessment of Effects on the Environment, submitted with the coastal permit application, Britton (2013) states the vicinity of the farm is of high recreational value to fishers. Results from an aerial survey of the Hauraki Gulf in 2005 by Hartill *et al* (2007) suggest there is likely to be a moderate

amount of recreational fishing at the area of coastal permit 41937 when compared to other areas in inner Hauraki Gulf (Map 3).



Map 3. Aerial survey results from 2005 of recreational fishing intensity (Hartill *et al*, 2007).⁵

28 A recreational fishing survey by Fisher and Bradford (1999) provides information on methods used, and species targeted and caught within zones in FMA1, one of which includes Waiheke Island. Table 1 below summarises my assessment of the main methods used, and species caught and targeted in the area of coastal permit 41937 based on recreational fishing surveying, benthic surveying and other information.

29 As shown, I consider that stationary and mobile rod/line methods from private and charter boats and setting are the predominant methods used at the area of coastal permit 41937, and that snapper and kahawai are the main species targeted and caught.

⁵ Figure sourced from NABIS (MPI, 2015).

Table 1: Recreational fishing methods used and species caught and targeted at the area of coastal permit 41937 based on the available information.

	Source of information		My assessment
	Fisher & Bradford (1999)	Site and other information	
Methods potentially used	Rod/line from private boat (71% of trips) Rod/line from shore (17 % of trips) Rod/hand/longline from charter boat (4% of trips) Set net (3% of trips) Hand gathering (2% of trips) Longline (1% of trips) Diving from private boat, flatfish spearing, longline from shore and drag netting (less than 1% of trips)	The gravel substrate in the coastal permit area is suitable for all the methods identified as occurring in the inner Hauraki Gulf zone by Fisher & Bradford (1999). Depths at the site are greater than those used for drag netting, hand gathering and flatfish spearing. Rod and line methods include trolling, drift fishing and anchored fishing. There is no public road access to coastline directly inshore of the coastal permit area.	Stationary and mobile rod/line methods from private and charter boats are the most commonly used methods at the site. A small amount of set netting may occur. Shore-based fishing (eg, rod/line and longlining) is unlikely to be common in the vicinity of the coastal permit area.
Species caught (top 10)	Snapper (1,985) Kahawai (441) Flatfish (123) Spotty (86) Yellow-eyed mullet (65) Sprats ⁶ (50) Koheru (40) Blue mackerel (31) Parore (30) Yellowtail ⁷ (28)	The depths, gravel substrate and existing marine farm structures in the vicinity of the coastal permit area are suitable for the most commonly caught species identified in the inner Hauraki Gulf zone by Fisher & Bradford (1999).	Snapper and kahawai are likely to be the most commonly caught species at the coastal permit area.
Species targeted (top 10)	Snapper (87% of trips) Kahawai (17% of trips) Kingfish (5% of trips) Mullet (unspecified) (1% of trips) Trevally, yellow-eyed mullet and grey mullet (1% of trips) Sprats, gurnard and school shark (less than 1% of trips)	The depths, gravel substrate and existing marine farm structures in the vicinity of the coastal permit area are suitable for the most commonly targeted species identified in the inner Hauraki Gulf zone by Fisher & Bradford (1999).	Snapper and kahawai are likely to be the most commonly targeted species at the coastal permit area.

⁶ May be confused with yellow-eyed mullet.

⁷ Probably jack mackerel, kingfish or koheru.

Exclusion of fishing

30 I consider the aquaculture activities proposed for the area of coastal permit 41937 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 area of coastal permit 41937 it is likely that set netting, drift fishing or trolling by rod/line would be excluded. Anecdotal information from recreational fishers⁸ suggests that spaces between longlines of mussel farms in the Marlborough Sounds are too narrow for set netting, and trolling without risk of entanglement. The proposed spacing of longlines (19 m) in the area of coastal permit 41937 is similar to mussel farms in the Marlborough Sounds and I consider there will be a similar risk of entanglement. I also consider that drift fishing is unlikely to occur within marine farms because of risk of entanglement.

32 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

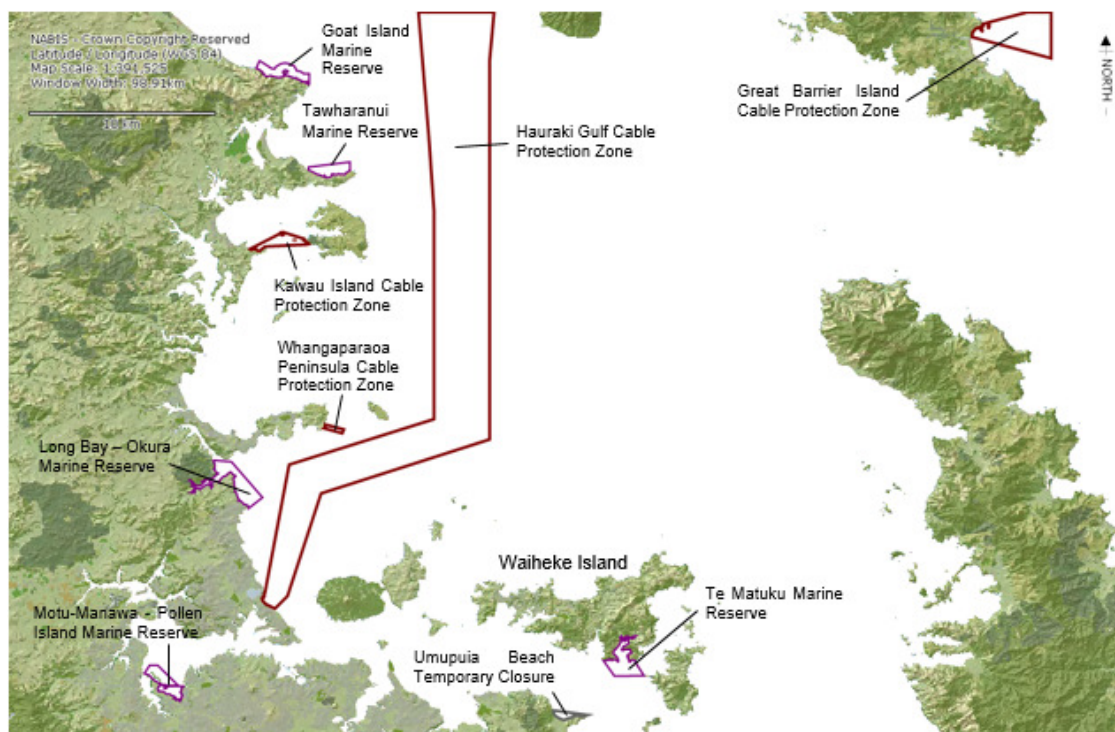
33 I consider there are other areas available for recreational fishing at Waiheke Island and the wider Hauraki Gulf area.

34 There are no method restrictions or prohibitions on recreational fishing at Waiheke Island or the area of coastal permit 41937. The wider Hauraki Gulf area is subject to area closures and method and species restrictions that slightly limit the availability of alternative areas (Map 4).⁹ Nevertheless, I consider alternative areas at Waiheke Island and the wider Hauraki Gulf could absorb fishing by most fishers who fish the area of coastal permit 41937 because:

- no information suggests the site offers fishing opportunities (eg, habitat, species, methods) specific to it;
- the same methods as those used at the site could be used elsewhere at Waiheke Island or some other parts of Hauraki Gulf; and
- there are sufficient alternative areas, particularly for rod/hand line fishing which can occur amongst mussel farms.

⁸ FMA7 Recreational Fishing Forum, 27 May 2013.

⁹ Area closures and method and species restrictions in the Hauraki Gulf are in place under the Amateur Regulations, section 186A of the Fisheries Act, the *Marine Reserves Act 1971* and the *Submarine Cables and Pipelines Protection Act 1996*.



Map 4. Area closures and species prohibitions in Hauraki Gulf.¹⁰

Increased cost of fishing

35 I consider the aquaculture activities proposed for the area of coastal permit 41937 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 area of coastal permit 41937 will be small.

38 There is little quantitative data available on recreational catch taken from the area of coastal permit 41937 or Waiheke Island. 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.

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 at Waiheke Island and the wider Hauraki Gulf area could absorb the recreational fishing displaced from the site.

¹⁰ These are all area closures, except Umupuia Beach Temporary Closure, which only prohibits take of cockles. Figure sourced from NABIS (MPI, 2015).

Cumulative effects

40 I consider effects from the aquaculture activities proposed for the area of coastal permit 41937, added to the effects of existing aquaculture in the Hauraki Gulf area, 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 coastal permit area for fishing.

42 There is a relatively small amount of aquaculture space in Hauraki Gulf (approximately 189 ha). Around 14 ha of this authorised aquaculture space is at Waiheke Island. 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 the amount of authorised space allocated to aquaculture activities is not large.

43 As noted, I consider the adverse effects of the area of coastal permit 41937 on recreational fishing will be small. Taking into account the effects of the existing authorised aquaculture areas, I consider the additional effects from the coastal permit area will not cause the cumulative effect on recreational fishing to become undue.

Conclusion on effects on recreational fishing

44 I am satisfied the aquaculture activities proposed within the area of coastal permit 41937 will not have an undue adverse effect on recreational fishing because:

- anchored rod/line fishing could still be used in the area;
- there are other recreational fishing areas available at Waiheke Island and in the wider Hauraki Gulf area;
- occupation of the coastal permit area will result in a minimal, if any, increase in the cost of recreational fishing; and
- the additional adverse effect of the 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 area of coastal permit 41937 is located where there could be a small amount of customary fishing for snapper and kahawai by rod/line methods, and perhaps some set netting. I also consider some customary fishing for scallops and mussels could occur, most probably by diving or dredging.

46 The Umupuia Beach Temporary Closure is the only customary management area in Hauraki Gulf (Map 4). However, there are 12 iwi belonging to the Hauraki Collective that could have customary fishing interests in the coastal permit area.¹¹

¹¹ The Hauraki Collective was established to represent Hauraki iwi in historical Treaty of Waitangi settlement negotiations and consists of the following 12 iwi: Ngāi Tai ki Tāmaki; Ngāti Hako; Ngāti Hei; Ngāti Maru; Ngāti Pāoa; Ngāti Porou ki Hauraki; Ngāti Pūkenga; Ngāti Rahiri Tumutumu; Ngāti Tamatera; Ngāti Tara Tokanui; Ngāti Whanaunga; and Te Patukirikiri.

47 Available information on customary fishing is primarily qualitative information from submissions and quantitative catch information from customary authorisations. There is no 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. Fishing methods and specific sites are not typically reported.

48 As previously mentioned, MPI received a request for consultation from Ngāti Whanaunga; however, no submissions were received stating customary fishing methods used or species caught. No other submissions were received from customary fishers.

49 Customary authorisations from January 2010 to December 2014 provide information on species targeted by customary fishers to the scale of Waiheke Island.

50 Table 2 below summarises my assessment of the main methods used, and species caught in the area of coastal permit 41937 based on the customary authorisations and other available information. I consider it likely that rod/line methods, and perhaps set netting, are likely to be the main methods used to target snapper and kahawai. I also consider some dredging and diving for scallops and mussels may occur.

Table 2: Customary fishing methods used and species targeted at the area of coastal permit 41937 based on the available information.

	Source of information		
	Customary authorisations	Other information	My assessment
Methods used	N/A	Methods used by recreational fishers (and potentially customary fishers) at the coastal permit area are stationary and mobile rod/line methods from boats, and perhaps a small amount of set netting. Dredging or diving for shellfish could occur if shellfish are targeted (see <i>species targeted below</i>).	Stationary and mobile rod/line methods, and perhaps a small amount of set netting, dredging or diving, could be used in the coastal permit area.
Species targeted	Kina, mussels, snapper, scallops, cockles, paua, dredge oysters, pipi, kahawai.	No algae beds or hard substrate habitat (cobble/reef) typically favored by paua, and kina are present in the coastal permit area. Wong (2009) did not observe kina, cockles, paua, dredge oysters or pipi in the coastal permit area. Wong (2009) observed scallops and mussels outside of the existing marine farm.	Snapper, kahawai, mussels and scallops could be taken by customary fishers in the coastal permit area.

Exclusion of fishing

51 I consider the aquaculture activities proposed for the area of coastal permit 41937 will exclude some of the customary fishing methods that may be used in the area.

52 Of the customary fishing methods likely to occur in the coastal permit area it is likely that set netting and 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 and trolling without risk of entanglement. And, the proposed spacing of longlines in the area of coastal permit 41937 is similar to that of mussel farms in the Marlborough Sounds. I also 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.

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

Availability of other fishing areas

54 I consider there are some alternative areas for customary fishing at Waiheke Island and the wider Hauraki Gulf area.

55 Like recreational fishing, customary fishing in the Hauraki Gulf is subject to area closures that slightly limit the availability of alternative fishing areas (Map 4).¹² Nevertheless, I consider there are alternative areas at Waiheke Island and in the wider Hauraki Gulf area for customary fishing that may be displaced from the area of coastal permit 41937 because:

- no information suggests the site offers fishing opportunities (eg, habitat, species, methods) specific to it;
- the same methods as those used at the site could be used elsewhere at Waiheke Island or some other parts of Hauraki Gulf; and
- there are sufficient alternative areas, particularly for rod/hand line fishing which can occur amongst mussel farms.

Increased cost of fishing

56 I consider the aquaculture activities proposed for the area of coastal permit 41937 will result in a minimal, if any, increase in the cost of customary fishing.

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

Likely effect on fishing

58 I consider the likely effect on customary fishing from the aquaculture activities proposed in the area of coastal permit 41937 will be relatively small.

59 As noted, there is little available quantitative data on customary catch taken from the coastal permit area. MPI is therefore unable to estimate an average annual customary catch, or proportion of customary catch, likely to be affected by the proposed aquaculture activities. Rather, MPI can only make an assessment of the effect of the proposed aquaculture activities on customary fishing based on qualitative information.

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

- not all customary fishing methods would be excluded from the site; and
- alternative areas at Waiheke Island and the wider Hauraki Gulf area could absorb the customary fishing displaced from the site.

¹² Area closures affecting customary fishing in the Hauraki Gulf are in place under the *Marine Reserves Act 1971* and the *Submarine Cables and Pipelines Protection Act 1996*.

Cumulative effects

61 I consider the effects from the aquaculture activities proposed for the area of coastal permit 41937, added to the effects of existing aquaculture in Hauraki Gulf, will not have an undue adverse effect on customary fishing.

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

63 As noted, there are approximately 189 ha of authorised aquaculture space in Hauraki Gulf, around 14 ha of which is at Waiheke Island. I consider the authorised aquaculture space has had some effect on customary fishing. However, I do not consider that the effect is undue because some customary fishing (eg, anchored rod/line fishing) can still occur within marine farms and it is unlikely all the farms are located in popular customary fishing areas.

64 As noted, I consider the adverse effects of the area of coastal permit 41937 on customary fishing will be small. Taking into account the effects of the existing authorised aquaculture areas, I consider the additional effects from the coastal permit area will not cause the cumulative effect on customary fishing to become undue.

Conclusion on effects on customary fishing

65 I am satisfied the aquaculture activities proposed within the area of coastal permit 41937 will not have an undue adverse effect on customary fishing because:

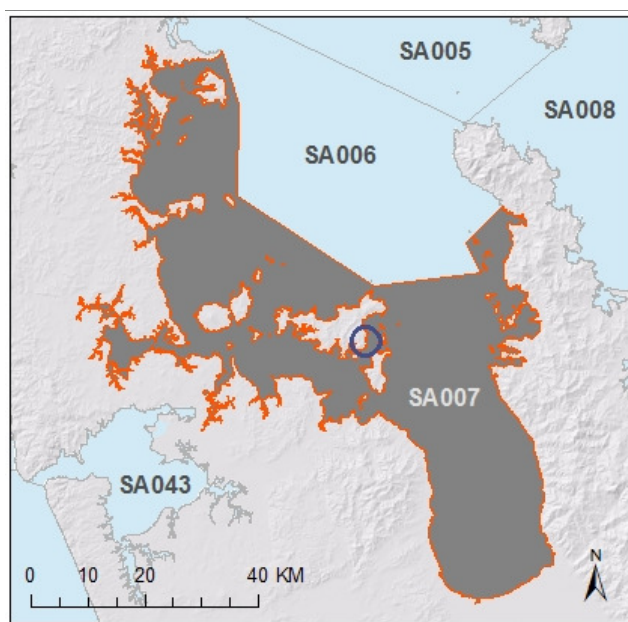
- anchored rod/line fishing and diving could still be used in the area;
- there are other areas available for customary fishing at Waiheke Island and the wider Hauraki Gulf area;
- occupation of the coastal permit area will result in a minimal, if any, increase in the cost of customary fishing; and
- the additional adverse effect of the coastal permit area on customary fishing is only small and will not cause the cumulative effect on customary fishing to become undue.

Commercial fishing

The location of the coastal permit area relative to fishing areas

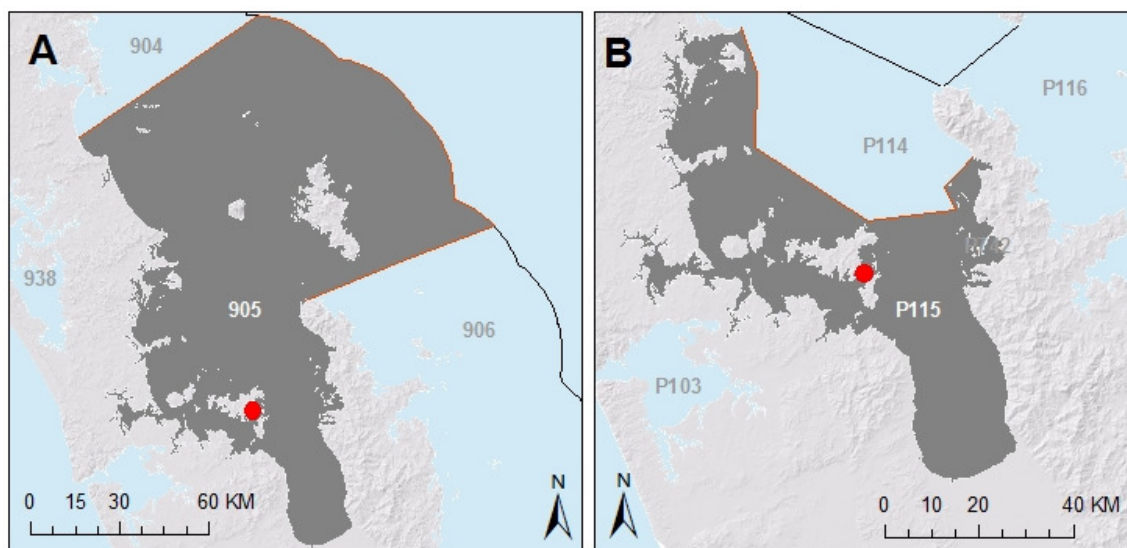
66 I consider the area of coastal permit 41937 is located where there is little commercial fishing, if any.

67 Historically, most commercial fishing has been reported by statistical area. The area of coastal permit 41937 is located in general statistical area 007 (**SA007**), which encompasses Hauraki Gulf (2585 km²) (Map 5).



Map 5: General statistical area SA007 encompassing the area of coastal permit 41937 (location as a blue circle).¹³

68 Scallops, oysters, rock lobster and paua are reported by species-specific statistical areas rather than by general statistical area. The area of coastal permit 41937 falls within rock lobster statistical area 905 and paua statistical area P115 (Maps 6A and 6B). However, the coastal permit area is not located in any scallop or oyster statistical areas because commercial fishing for scallops is prohibited in a region around Waiheke Island that includes the coastal permit area¹⁴ and there is no oyster fishery in the area.



Map 6: Species-specific statistical areas encompassing the area of coastal permit 41937 (location as a red circle). A — Rock lobster statistical area 905. B — Paua statistical area P115.¹⁵

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

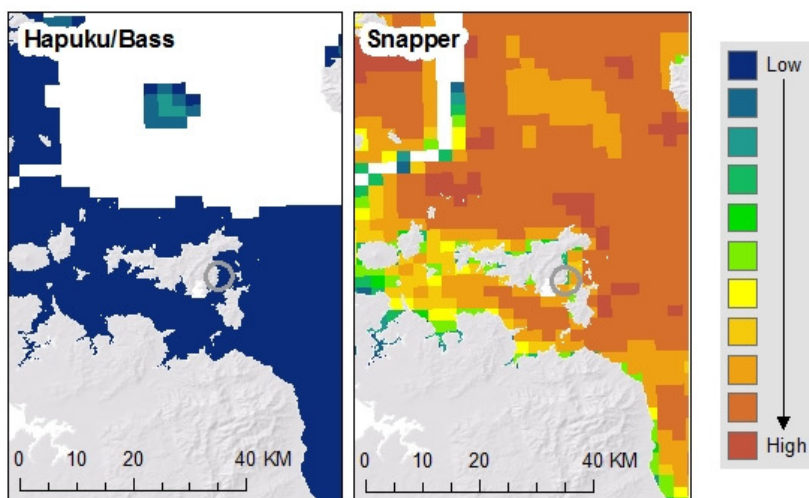
¹⁴ Section 22 of the *Fisheries (Auckland and Kermadec Areas Commercial Fishing) Regulations 1986*.

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

69 Reporting by statistical area only provides coarse-scale information about where commercial fishing occurs. However, since 2007/08 vessels over 6 m long that have used trawl or line fishing 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.

70 The location of fishing by vessels less than 6 m long within SA007 is unknown. However, based on information from fisheries officers and Maritime New Zealand, MPI has mapped long lining, bottom trawling and set-netting by vessels less than 6 m as being within enclosed bays and within 3 nm of open coasts. The fishing by vessels less than 6 m is included in the maps of fine scale position data, which is the best information available from fisheries statistics. Although, knowledge about species and information from commercial fishers can also help to determine whether specific types of fishing are likely to occur in an area.

71 Table 3 below lists the main fishery segments known to occur in SA007 and summarises my assessment of which fishery segments are likely to overlap the area of coastal permit 41937. Maps 7A, and 7B 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.



Map 7A: Fishing intensity of long line fishery segments. The grey circle indicates the general location of the coastal permit area.

72 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 7A and 7B.

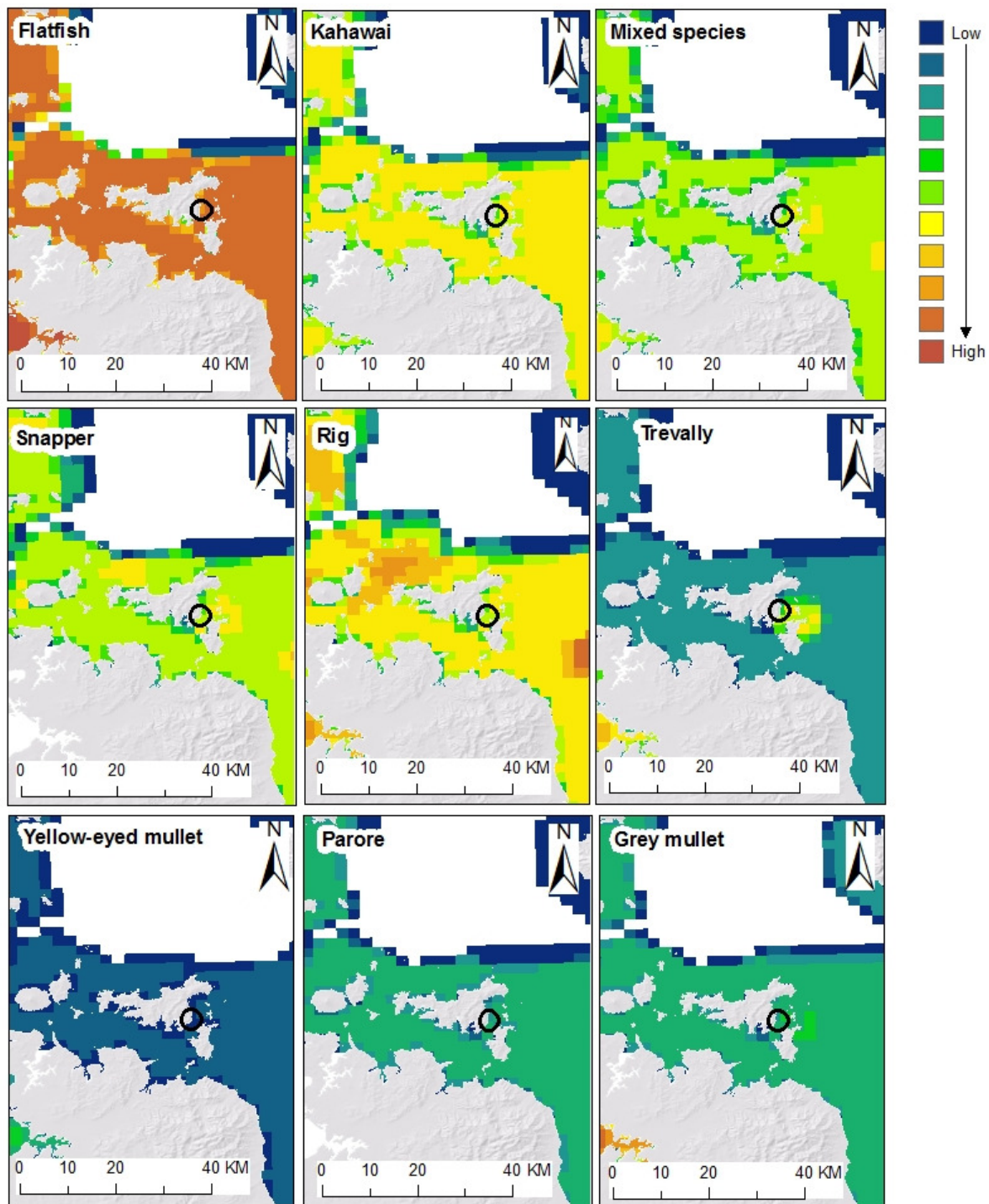
73 Awakiriapa Bay, where the area of coastal permit 41937 is located, is open to all commercial fishing methods except trawling and Danish seining, although some gear and deployment

¹⁶ Bottom long lining, surface long lining or trot lines.

¹⁷ Set-netting or drift-netting.

¹⁸ *Fisheries (Reporting) Regulations 2001*.

restrictions apply.¹⁹ Take of scallops, pipi, tuatua, cockle and spotted black groper is also prohibited at the coastal permit area.²⁰



Map 7B: Fishing intensity of set net fishery segments. The black circle indicates the general location of the coastal permit area.

¹⁹ Fisheries (Auckland Kermadec Areas Commercial Fishing) Regulations 1986.

²⁰ Fisheries (Auckland Kermadec Areas Commercial Fishing) Regulations 1986.

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) ²¹	Statistical area	% of fine scale fishing events	Average annual no. fishing days ²²	% of main fishstock caught in statistical area	Potentially affected by coastal permits?	Rationale for excluding fishery from proposed farm assessment ²³
Flatfish, Set Net (incl. Gill Net)	007	0%	2466	38%	Yes	
Snapper, Bottom Long Line	007	84%	704	8%	Yes	
Kahawai, Set Net (incl. Gill Net)	007	1%	348	17%	Yes	
Rig, Set Net (incl. Gill Net)	007	14%	241	16%	Yes	
Mixed Fishery, Set Net (incl. Gill Net)	007	3%	239	N/A	Yes	
Snapper, Set Net (incl. Gill Net)	007	3%	216	8%	Yes	
Grey Mullet, Ring Net	007	0%	173	6%	Yes	
Snapper, Hand Line	007	0%	142	8%	Yes	
Grey Mullet, Set Net (incl. Gill Net)	007	0%	126	6%	Yes	
Kahawai, Ring Net	007	0%	110	17%	Yes	
Mixed Fishery, Hand Line	007	0%	43	N/A	Yes	
Trevally, Set Net (incl. Gill Net)	007	8%	31	1%	Yes	
Sea Cucumber, Diving	007	0%	24	33%	Yes	
Snapper, Ring Net	007	0%	22	8%	Yes	
Yellow-eyed Mullet, Set Net (incl. Gill Net)	007	0%	20	36%	Yes	
Mixed, Ring Net	007	0%	16	N/A	Yes	
Other (Mussels, Cooks Turban), Diving	007	2%	15	N/A	Yes	
Other (Fish and Octopus), Pot	007	0%	11	N/A	Yes	

²¹ Main fishstock refers to the species most often caught by the relevant method, it does not include all species taken by that method.

²² Excludes segments with less than five days fishing per year.

²³ 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	Potentially affected by coastal permits?	Rationale for excluding fishery from proposed farm assessment
Pilchard, Purse Seine	007	0%	9	0%	No	The low number of fishing days (<10) are unlikely to occur in the coastal permit area
Mixed, Bottom Long Line	007	74%	7	N/A	No	Based on current data, this fishery occurs outside of the coastal permit area
Albacore, Troll	007	0%	5	0%	No	The low number of fishing days (<10) are unlikely to occur in the coastal permit area
Snapper, Danish Seine	007	25%	3	8%	No	This type of fishing is prohibited from the coastal permit area
Snapper, Bottom Trawl	007	100%	3	8%	No	This type of fishing is prohibited at the coastal permit area
Scallops, Dredge	2W, 2X	0%	128	0%	No	This type of fishing is prohibited at the coastal permit area
Rock lobster, Rock Lobster Pot	905	0%	1024	0%	No	Rock lobsters are mainly fished from areas of rocky reef and hard substrate. The coastal permit area does not include this habitat type
Parore, Set Net (incl. Gill Net)	007	0%	74	29%	No	Parore are mainly associated with reef and seaweed habitats (MPI, 2013) and are unlikely to be targeted in the coastal permit area
Kina, Diving	007	0%	62	0%	No	Kina are found in rock and reef habitats. The coastal permit area does not include this habitat type
Parore, Ring Net	007	0%	49	29%	No	Parore are mainly associated with reef and algal habitats (MPI, 2013) and are unlikely to be targeted in the coastal permit area
Packhorse Lobster, Rock Lobster Pot	905	0%	22	0%	No	Packhorse lobsters inhabit areas of reef and hard substrate. This habitat type does not occur in the coastal permit area

Exclusion of fishing

74 I consider the aquaculture activities proposed in the area of coastal permit 41937 will exclude only a small amount of commercial fishing, if any.

75 The exclusion zone for commercial fishing methods in this assessment (as identified in Table 3) is the area of coastal permit 41937 (ie, 7.96 ha). This is because the methods could occur immediately adjacent to but not within the coastal permit area.

Availability of other fishing areas

76 I consider that any commercial fishing displaced from the area of coastal permit 41937 could occur in other areas.

77 There are commercial closures or restrictions in parts of SA007 and the relevant QMAs or FMA1 (including various species, method, time period, fishing gear, or a combination of these criteria).²⁴ However, I consider the extent of the closures does not significantly limit the potential for any commercial fishing displaced from the coastal permit area to be absorbed by alternative fishing grounds because:

- the same methods as those possibly used at the coastal permit area could be used elsewhere in SA007, and the relevant QMAs or FMA1;
- no information suggests the site offers fishing opportunities (eg, habitat, species, methods) specific to it; and
- the area excluded to commercial fishing would be relatively small.

78 I recognise areas of authorised aquaculture space have reduced the availability of other commercial fishing areas over time. As noted, there are around 14 ha of authorised aquaculture space at Waiheke Island. In SA007 there are approximately 2,980 ha of marine farms that make up 40% of the 7,500 ha of aquaculture in FMA1. The cumulative effect of the existing aquaculture is considered further below.

Increased cost of fishing

79 I consider that the aquaculture activities proposed in the area of coastal permit 41937 will not increase the cost of commercial fishing.

80 While the coastal permit area may be located within a region used for commercial fishing, I consider that using alternative commercial fishing grounds would not result in an increase in the cost of commercial fishing. This is because the coastal permit area will only exclude a small area from commercial fishing and there are equally productive fishing grounds available nearby.

Likely effect on fishing

81 I consider the aquaculture activities proposed in the area of coastal permit 41937 will only have a small adverse effect on any commercial fishery, if any.

82 The amount of fishing effort estimated to be displaced by the activities proposed in the area of coastal permit 41937 is negligible. The coastal permit area would affect less than 20 kg of average annual catch for fishing indicated as assessed in Table 3. Any loss of catch could be caught elsewhere

²⁴ The Fisheries (Auckland Kermadec Areas Commercial Fishing) Regulations 1986, Fisheries (Commercial Fishing) Regulations 2001, Marine Reserves Act 1971, Submarine Cables and Pipelines Protection Act 1996 and the Kaimoana Regulations contain closures and restrictions that affect commercial fishing in FMA1.

within FMA 1, since the target fin fish species are highly mobile. 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 zone of the coastal permit area. Average landings per unit effort for all species caught in each fishery segment were then used to estimate the amount of fish likely to have been landed.

83 Fishing effort that is only reported by statistical area was apportioned evenly across the area available for fishing although some areas are likely to include more productive habitats than others. The parts of the statistical area available for fishing for each type of fishing method are defined by using all available information (including regulated closures, bathymetry, seabed substrate, and consultation with fishers) about where the method is likely to be used. Where fishing is reported to the statistical area level, there is increased uncertainty as to where fishing events have taken place within the statistical area.

84 The amount of fishing was averaged over October fishing years 2007/08 to 2011/12. Five years is long enough to take into account natural variation in the abundance and distribution of fish stocks and fishing effort so that likely average future fishing is fairly represented.

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

Cumulative effects

86 I consider the addition to the cumulative effect on commercial fishing from the aquaculture activities proposed in the area of coastal permit 41937 is negligible.

87 Around 7,500 ha of authorised aquaculture activities in FMA1 have been previously assessed for their total cumulative effect on commercial fishing. For any fish stocks potentially affected by the area of coastal permit 41937, the cumulative effect has previously been assessed as a maximum of approximately 0.5% effect on any fishery and not undue.

88 As noted, the coastal permit area would affect less than 20 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

89 I am satisfied the aquaculture activities proposed within the area of coastal permit 41937 will not have an undue adverse effect on commercial fishing because:

- there are alternate fishing grounds in SA007 and the relevant QMAs or FMA1;
- occupation of the coastal permit area will result in a minimal, if any, increase in the cost of commercial fishing;
- effects on commercial fishing catch will only be small; and
- the additional adverse effect on commercial fishing for any fish stock is only small and will not cause the cumulative effect on commercial fishing for any fish stock to become undue.

Aquaculture decision

90 I am satisfied – based on all relevant information available to me – the activities proposed for coastal permit area 41937 will not have an undue adverse effect on:

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

91 Accordingly, my decision is a determination for coastal permit 41937 with regard to:

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

92 The area of the determination on recreational, customary and commercial fishing is 7.96 ha comprising an area with the following coordinates (NZTM2000):

<u>Point</u>	<u>Easting</u>	<u>Northing</u>
1	1793403.47	5924581.50
2	1793683.06	5924593.29
3	1793676.04	5924282.85
4	1793428.17	5924288.43

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



David Scranney
Spatial Allocations Manager
Ministry for Primary Industries

Dated this 21st August 2015

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