



17 December 2018

AQUACULTURE DECISION REPORT — WESTPAC MUSSELS DISTRIBUTORS LIMITED, COASTAL PERMITS CST60303341 AND CST60303342, FIRTH OF THAMES

PURPOSE

1 This report sets out my aquaculture decisions (as the relevant decision maker¹) for aquaculture decision requests made under section 114(4)(c)(ii) of the *Resource Management Act 1991* (**RMA**). 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 areas of coastal permits CST60303341 and CST60303342 will not have an undue adverse effect on the following fishing sectors:

- *recreational* - for the reasons set out in this report and summarised in paragraph 18;
- *customary* - for the reasons set out in this report and summarised in paragraph 43;
- *commercial* - for the reasons set out in this report and summarised in paragraph 68.

AQUACULTURE DECISION REQUEST DETAILS

Coastal Permit:	CST60303341 – Rangipakahi site
Regional Council:	Auckland Council (AC)
Date of Request:	24 May 2018
Coastal Permit Applicant:	Westpac Mussels Distributors Limited
Location of Marine Farm Site:	Mid Firth of Thames
Size of Farm:	171.00 hectares (ha) of new space.
Species to be Farmed:	Green-lipped mussel (<i>Perna canaliculus</i>).
Farm Structures:	Standard marine farm longlines and anchors with droppers or suspended frames.

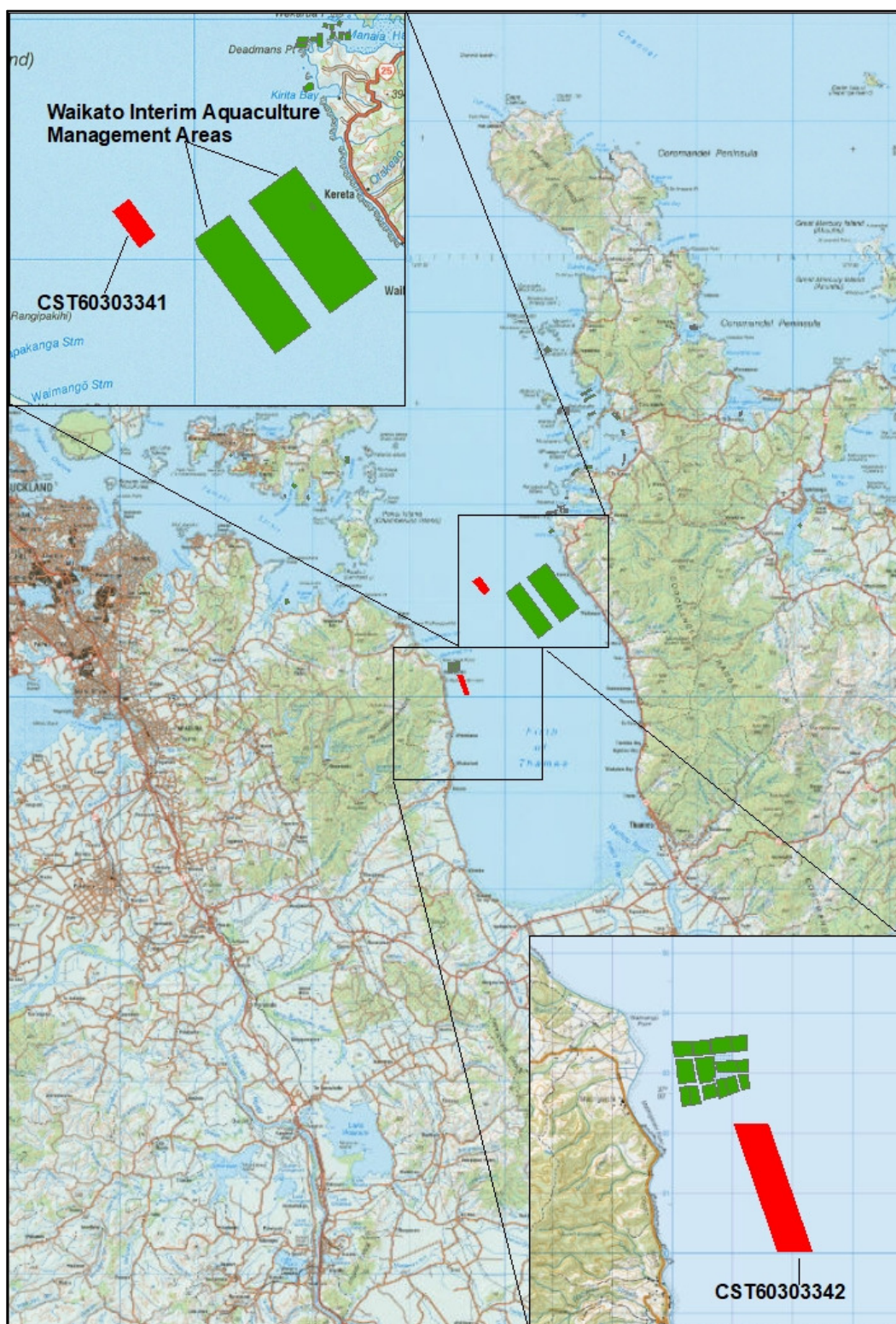
¹ Acting under authority delegated to me by the Director-General of the Ministry for Primary Industries (**MPI**) in accordance with section 41 of the *State Sector Act 1988*.

Coastal Permit:	CST60303342 –Waitoetoe site
Regional Council:	Auckland Council (AC)
Date of Request:	24 May 2018
Coastal Permit Applicant:	Westpac Mussels Distributors Limited
Location of Marine Farm Site:	Western Firth of Thames
Size of Farm:	128.2 ha of new space.
Species to be Farmed:	Green-lipped mussel (<i>Perna canaliculus</i>).
Farm Structures:	Standard marine farm longlines and anchors with droppers or suspended frames.

LOCATION AND STRUCTURES

3 Coastal permit CST60303341 applies to a 171 ha area in the middle of the Firth of Thames (Map 1). The proposed site is approximately 9 km from Kereta on the Coromandel Peninsula and 8 km from Orere Point on the western Firth of Thames coastline. The nearest marine farming area is the Waikato Interim Aquaculture Management Area (AMA) approximately 1.5 km to the south-east.

4 Coastal permit CST60303341 applies to a 128.2 ha area in the middle of the Firth of Thames. The proposed site is 1.5 – 2 km offshore of the western Firth of Thames coastline. The nearest marine farms are approximately 500 m to the north.



Map 1²: Location of the areas authorised by coastal permits CST60303341 and CST60303342, Firth of Thames. Layout and structures diagrams are in Appendix A.

² MPI (2018). Data Attribution: This map uses data sourced from LINZ under CC-BY. <http://creativecommons.org/licenses/by/3.0/nz/>

5 The area of coastal permit CST60303341 is located in water that is 20 – 25 m in depth. The substrate is mud-dominated, with no hard or reef substrates (Britton, 2017a). The area of coastal permit CST60303342 is located in water that is 8 – 10 m in depth. The substrate is also mud-dominated, with no hard or reef substrates (Britton, 2017b).

INPUT FROM STAKEHOLDERS

6 Fisheries New Zealand publicised the applications for coastal permits CST60303341 and CST60303342 on its website on 17 September 2018. 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.

7 The closing date for submissions was 15 October 2018. Fisheries New Zealand did not receive any submissions.

8 Fisheries New Zealand also engaged with tangata whenua and consulted with targeted recreational and commercial stakeholders (a full list of tangata whenua and stakeholders consulted with by Fisheries New Zealand can be found in Appendix B). Tangata whenua and stakeholders had until 17 October 2018 to provide submissions. No submissions were received.

9 Westpac Mussels Distributors Limited (**Westpac Mussels**) provided a submission in support of its applications. A copy of the submission is in Appendix C. The information contained in the submission has been incorporated into the following assessment.

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 customary, recreational, or commercial fishing³. 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 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:

Disclaimer: Maps and all accompanying information in this document (the “Maps”) are intended to be used as a guide only, with other data sources and methods, and should only be used for the purpose for which it was 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. Crown copyright ©. The maps are subject to Crown copyright administered by Ministry for Primary Industries (MPI).

³ 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.

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

14 For the purpose of my assessment, customary fishing differs from recreational fishing if it is undertaken outside of the recreational limits provided in the *Fisheries (Amateur Fishing) Regulations 2013 (Amateur Regulations)* and is instead authorised by a customary authorisation.

15 Appendix D has further information on statutory context.

ASSESSMENT

16 The following is an assessment, within the statutory context, of the effects of the proposed aquaculture activities on recreational, customary and commercial fishing. It is based on all the relevant information available to me.

17 This assessment relates to the 171.00 ha and 128.20 ha of marine farming space authorised by coastal permits CST60303341 and CST60303342 respectively.

Recreational fishing

18 I am satisfied the aquaculture activities that may operate within the proposed marine farms will not have an undue adverse effect on recreational fishing because:

- anchored rod/line fishing could still occur within the proposed marine farms;
- anecdotal and recreational survey results suggest existing mussel farms in the Firth of Thames are popular recreational fishing locations;
- there are other recreational fishing areas available in the Firth of Thames;
- occupation of the proposed marine farms is unlikely to increase the cost of recreational fishing;
- the likely adverse effect of occupation of the proposed sites on recreational fishing, if any, is only small; and
- this small effect added to existing effects of approved aquaculture space will not cause the cumulative effect on recreational fishing to become undue.

19 The above conclusions were reached following the more detailed assessment below and includes the information in the submission from Westpac Mussels. Fisheries New Zealand did not receive any information from fishers on how the proposed marine farms would affect recreational fishing.

20 Most available information on recreational fishing is qualitative information from submissions or fishing surveys that only indicate spatial use across a region⁴. There is no available quantitative catch data on recreational fishing at the scale of a marine farm because recreational fishers are not required to report catch or fishing locations. Similarly, there is no available quantitative data on recreational catch taken in the Firth of Thames. Therefore, Fisheries New Zealand can only make an assessment of the importance of the coastal permit area for recreational fishing based on qualitative information.

Location of the coastal permit areas relative to fishing areas

21 I consider the areas of the proposed marine farms are located where there is a moderate to high amount of recreational fishing.

22 The Firth of Thames is a very popular area for recreational fishing. A large number of recreational charter vessels and private boats fish the region, particularly because it offers a large stretch of coastline, sheltered bays (particularly on the eastern side) and productive fishing grounds.

23 Results of an aerial survey in 2004/05 suggest there is a moderate to high amount of recreational fishing at the proposed marine farms (see Map 2). As shown in Map 2, fishing intensity in the Firth of Thames is greatest around existing marine farms and areas of rocky coastline. The Hartill *et. al.* (2007) survey only assessed catch of snapper, kahawai and kingfish. As a result it doesn't identify importance of other species that may be caught in the Firth of Thames. It also does not provide any fine scale estimates of the amount of catch.

24 However, a large amount of Amateur Charter Vessel⁶ (ACV) fishing has been reported in the Firth of Thames and wider Hauraki Gulf. In the Firth of Thames this is concentrated around the existing mussel farms and primarily targets snapper.

25 Anecdotal evidence from charter boat websites also indicates that existing marine farms in the Firth of Thames are a popular recreational fishing location, particularly rod and line fishing for snapper.⁷ While some recreational fishing methods may be excluded or restricted by the proposed marine farms, the popularity of the existing marine farms⁸ suggests that they may enhance recreational fishing for snapper in particular.

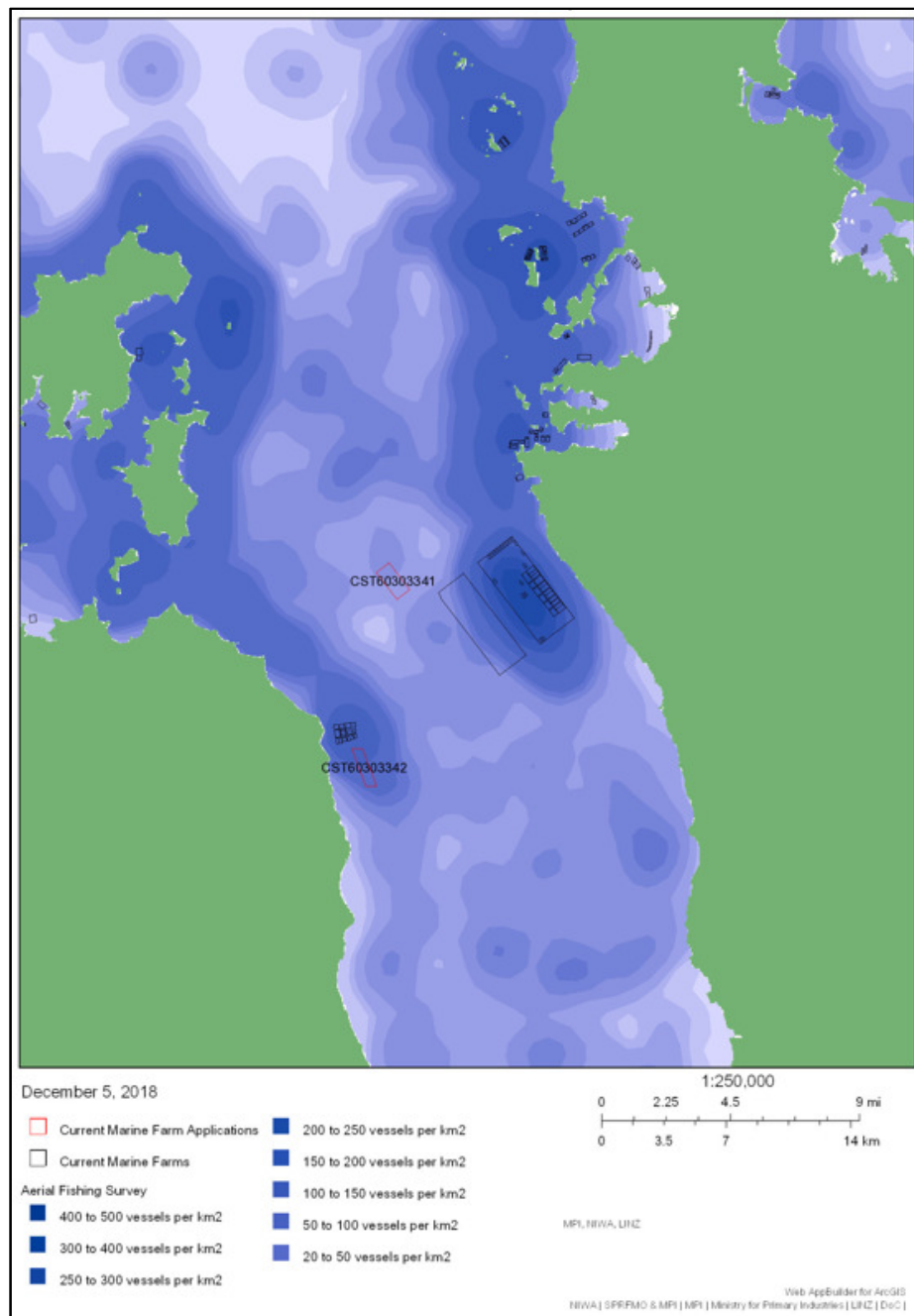
⁴ Recreational fishing surveys are typically not precise at the scale of small marine farms.

⁵ 2004/05 recreational fishing survey of Fisheries Management Area (FMA1) (Hartill *et al.*, 2007)

⁶ ACV data is reported through Activity Catch Returns and includes fishing positions, target and caught species numbers, and methods used.

⁷ www.thamescharters.co.nz; www.musselbargesafaris.co.nz; www.coromandelanglingcharters2013.co.nz; www.snapperexpress.co.nz; www.thecoromandel.co.nz.

⁸ Based on the Hartill *et. al.*, (2007) survey, ACV data and charter boat websites.



Map 2. Aerial survey results from 2004/05 of recreational fishing intensity in the Firth of Thames (Hartill *et al*, 2007). Proposed marine farms shown in red and existing marine farms in black.

26 Table 1 summarises my assessment of the main methods used and species likely to be caught by recreational fishers at the proposed marine farms based on ACV data, the assessments of environmental effects (Britton, 2017a and 2017b) and other sources.⁹

⁹ As noted the key recreational fishing survey (Hartill *et. al* 2007) focused on snapper, kahawai and kingfish. As a result it does not provide information on the full range of methods that may be used and species that may be targeted or caught.

Table 1: Recreational fishing methods used and species likely to be caught and targeted at the areas of coastal permits CST60303341 and CST60303342, based on the available information.

	ACV data for Firth of Thames	Other information	My assessment
Methods used	Hand line on anchor and a small amount of hand line drifting.	<p>The benthic habitats recorded in Britton (2017a and 2017b) support the methods typically used over mud substrate.</p> <p>Dredging is unlikely to be used as scallop dredging is prohibited and there is not an oyster fishery in the Firth of Thames.</p> <p>Diving is unlikely to occur due to the absence of shellfish beds and the mud substrate at the proposed marine farms.</p>	Stationary and mobile rod/line, set netting and long lining methods may be used at the site.
Species targeted caught by number (top 10)	<p>Targeted - snapper, kingfish and Jack mackerel.</p> <p>Caught – snapper, gurnard, kahawai, kingfish, trevally, John dory and Jack mackerel.</p>	Charter boat websites (footnote 7) suggest snapper is the main species targeted and caught in the Firth of Thames, predominately around existing marine farms. Kingfish are also caught, along with gurnard, kahawai, trevally, John dory and Jack mackerel	<p>Snapper are the main species caught in the areas of the proposed marine farms. Gurnard, kahawai and kingfish and also commonly caught species, with lesser amounts of trevally, John dory and Jack mackerel.</p> <p>The absence of hard substrates beneath the proposed marine farms makes it unlikely rock lobster and blue cod are targeted or caught in the areas of the proposed marine farms.</p>

Exclusion of fishing

27 I consider that, of the recreational fishing occurring in the areas of the proposed marine farms, longlining, drift fishing and set netting would be excluded because of the risk of entanglement.

28 Anecdotal information from recreational fishers suggests that spaces between longlines of mussel farms in the Marlborough Sounds are too narrow for longlining, set netting and trolling without risk of entanglement. I also consider that drift fishing is unlikely to occur within marine farms because of risk of entanglement. The spacing between longlines in the proposed marine farms is 15 - 20 m, which is similar to mussel farms in the Marlborough Sounds. Therefore I consider these methods are likely to be excluded from the proposed marine farms also.

29 However, I consider that stationary rod and line fishing could continue between the proposed structures, as anecdotal information suggests fishers commonly fish by rod/line within mussel farms.

Availability of other areas

30 I consider there are other areas available in the Firth of Thames for any recreational fishing excluded from the areas of the proposed marine farms.

31 The Firth of Thames and wider Hauraki Gulf region is subject to area closures and various species and method restrictions.¹⁰ These restrictions limit the availability of alternative recreational fishing areas outside of the areas of the proposed marine farms. However, I consider alternative areas in the Firth of Thames could absorb most recreational fishing excluded from the proposed marine farms because:

- the substrate beneath the proposed marine farms, dominated by soft mud, is representative of the wider Firth of Thames region.¹¹ No information suggests the application sites offer fishing opportunities (for example, habitat, species, methods) specific to them;
- the same methods as those used at the areas of the proposed marine farms could be used elsewhere in the Firth of Thames;
- there are sufficient alternative areas for the methods that are excluded from within mussel farms; and
- the popularity of mussel farms for recreational fishers suggests that fishers may be able to use alternative methods within mussel farms in addition to using alternative areas for methods that are excluded from the proposed marine farms.

32 All of the Firth of Thames is available for recreational fishing under the Amateur Regulations. And, all of the wider Hauraki Gulf is available for recreational fishing apart from four areas closed under the *Submarine Cables and Pipelines Protection Act 1996*¹² and four small marine reserves¹³ (outside of the Firth of Thames). Many alternative areas are therefore available for recreational fishers.

33 Areas of authorised aquaculture space have reduced the availability of other recreational and customary fishing areas over time. The cumulative effects of existing aquaculture are further considered below.

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

¹¹ Britton (2017a) and Britton (2017b).

¹² West of Kawau Island, east of Great Barrier Island, east of the Whangaparoa Peninsula and the Hauraki Gulf shipping lane

¹³ Long Bay-Okura, Cape Rodney-Okakari Point, Te Matktu and Tawharanui marine reserves.

Increased cost of fishing

34 I consider that the aquaculture activities at the proposed marine farms would result in a minimal, if any, increase in the cost of recreational fishing.

35 I consider that any recreational fishing excluded from the proposed marine farms could be carried out nearby with minimal additional cost, as a result of a marginal increase in fuel cost or change in method. I consider that most species targeted at the areas of the proposed marine farms could still be taken, using current or alternative fishing methods.

Likely effect on fishing

36 I consider the likely effect on recreational fishing from the aquaculture activities proposed in the areas of the application sites would be small.

37 There is little quantitative data available on recreational catch taken from the areas of the proposed marine farms or the Firth of Thames generally. Recreational fishers are not required to report catch or fishing locations and there is limited information available from ACV data. Fisheries New Zealand 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, Fisheries New Zealand can only make an assessment of the effect of the proposed aquaculture activities on recreational fishing based largely on qualitative information.

38 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 proposed marine farms;
- anecdotal information suggests existing mussel farms are popular fishing locations, particularly rod and line fishing for snapper. Fisheries New Zealand has no information to suggest recreational fishers will not use the proposed marine farms in a similar way;
- the area of the proposed marine farms is small compared to the available area in the Firth of Thames and is unlikely to be of particular importance to recreational fishers; and
- alternative areas within the Firth of Thames could absorb the recreational fishing displaced from the proposed marine farms.

Cumulative effects

39 I consider effects from the aquaculture activities at the proposed marine farms, added to the effects of existing aquaculture in the Firth of Thames, would not have an undue adverse effect on recreational fishing in the Firth of Thames.

40 I acknowledge existing aquaculture in the Firth of Thames has affected recreational fishing. There are approximately 2,850 ha of existing aquaculture in the Firth of Thames, predominately in the outer half of the Firth.

41 As noted, there is limited quantitative data available to assess the cumulative effects of authorised aquaculture on recreational fishing. Therefore, Fisheries New Zealand can only assess cumulative effects on recreational fishing based on the amount of aquaculture already authorised in the relevant recreational fishery and the likely importance of the area of the proposed marine farms for fishing.

- 42 However, I consider the cumulative effects on recreational fishing will not be undue because:
- some recreational fishing, particularly anchored rod and line fishing can still occur within marine farms. Anchored rod and line fishing is a popular method of recreational fishing in the Firth of Thames;
 - anecdotal evidence suggests that mussel farms are a popular location for recreational rod and line fishing, particularly for snapper;
 - not all existing farms are located in popular recreational fishing areas; and
 - as noted, I consider the adverse effects on recreational fishing of the proposed marine farms is small. And taking into account effects of existing marine farms I am satisfied the effect on recreational fishing will not be undue.

Customary fishing

43 I am satisfied the aquaculture activities that may operate within the proposed sites will not have an undue adverse effect on customary fishing because:

- only a moderate amount of customary fishing is likely to occur at the proposed site;
- anecdotal and recreational survey results suggest existing mussel farms in the Firth of Thames are popular recreational fishing locations. This is likely to be the case for customary fishing also;
- anchored rod/line fishing and diving could still occur at the proposed site;
- there are other customary fishing areas available in the Firth of Thames and wider Hauraki Gulf;
- occupation of the proposed site will result in a minimal, if any, increase in the cost of customary fishing;
- the likely effect of occupation of the proposed site on customary fishing is only small; and
- this small effect added to existing effects of approved aquaculture space will not cause the cumulative effect on customary fishing to become undue.

44 The above conclusions were reached following the more detailed assessment below and includes the information in the submission from Westpac Mussels. Fisheries New Zealand did not receive any information from tangata whenua on how the proposed marine farms would affect customary fishing.

Location of the coastal permit area relative to fishing areas

45 I consider the proposed marine farms are located where there is likely to be a moderate amount of customary fishing. The main method likely to be used is stationary rod/line fishing from a boat with set netting, drift fishing and long lining also popular methods. The main species caught is snapper, with flatfish, kahawai, kingfish and mussels also popular species in the Firth of Thames and possibly caught in the areas of the proposed marine farms.

46 Westpac Mussels submitted that they have been advised by Ngato Whanaunga and Ngati Paoa that their customary and recreational fishing will be improved by the proposed marine farms being established.

47 Fisheries New Zealand consulted with 13 iwi, who it considers may have customary fisheries interests in the areas of the proposed marine farms.¹⁴ There are no existing customary management areas (for example, taiapure-local fishery or mātaihai reserves) in the vicinity of the proposed marine farms.

48 There is little quantitative data available on customary catch taken from the proposed marine farms. Fishing locations for customary authorisations are usually only reported by Fisheries Management Area (FMA) or Quota Management Area (QMA), although more specific sites are sometimes identified. Customary authorisations for the Firth of Thames are issued under regulations 50 and 51 of the Amateur Regulations and do not need to be routinely reported. Customary fishers are not required to report catch or fishing locations.

49 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 assess the effect of the proposed aquaculture activities on customary fishing based on qualitative information. In the absence of information to the contrary, Fisheries New Zealand has assumed that the methods used and species targeted and caught by recreational fishers are likely to be used and targeted / caught by customary fishers also.

50 From January 2007 to December 2017 179 customary authorisations issued for the Firth of Thames and Coromandel were reported to Fisheries New Zealand. However, it is not possible to say these were for customary fishing in the areas of the proposed marine farms.

51 I have assessed likely customary fishing in the proposed site in Table 2 below, using the available information on customary fishing.

¹⁴ Ngai Tai ki Tamaki, Ngati Maru, Ngati Hei, Ngati Paoa, Ngati Tamatera, Ngati Porou ki Harataunga, Ngati Hako, Ngati Pukenga, Patukirkiri, Ngati Whanaunga, Tara Tokanui, Rahiri-Tumutumu and Ngaitai.

Table 2: Customary fishing methods used and species caught or targeted at the areas of the proposed marine farms

	Source of information		
	Customary authorisations for issued for the Firth of Thames	Other information	My assessment
Methods used	N/A	Recreational fishers commonly use stationary and mobile rod/line methods, longlining and set netting, so customary fishers may also use these methods.	Stationary rod/line fishing, longlining and set netting are the most common methods for recreational fishers and may also be used by customary fishers.
Species caught or targeted	Snapper, kahawai, kingfish, cockle, marine eel, flatfish, mullet, dredge oyster, pipi, kina, trevally, tuatua.	<p>Kina, marine eels or green-lipped mussels are not typically found over the mud substrate at the proposed marine farms.</p> <p>The proposed marine farms are not located within an oyster fishery area.</p> <p>The water depth at the proposed marine farms is too deep to be fished for cockle, pipi or tuatua.</p>	<p>Snapper, kahawai and kingfish are likely to be the most commonly caught species at the proposed marine farms.</p> <p>The substrate and depth make the catch of following species kina, marine eel, green-lipped mussel, cockle, pipi and tutua unlikely.</p>

Exclusion of fishing

52 I consider that, of the customary fishing occurring in the areas of the proposed marine farms, longlining, drift fishing and set netting would be excluded because of the risk of entanglement.

53 As noted, anecdotal information from recreational fishers suggests that spaces between longlines of mussel farms in the Marlborough Sounds are too narrow for longlining, set netting and trolling without risk of entanglement. I also consider that drift fishing is unlikely to occur within marine farms because of risk of entanglement. I consider that customary fishing in the proposed marine farms is likely to be similarly excluded.

54 However, I consider that stationary rod and line fishing could continue between the proposed structures, as anecdotal information suggests fishers commonly fish by rod/line within mussel farms.

Availability of other areas

55 I consider there are alternative areas available elsewhere in the Firth of Thames for any customary fishing displaced from the areas of the proposed marine farms.

56 All of the Firth of Thames is available for customary fishing. And, all of the wider Hauraki Gulf is available for customary fishing apart from four areas closed under the *Submarine Cables and Pipelines Protection Act 1996*¹⁵ and four small marine reserves¹⁶ (outside of the Firth of Thames).

57 I consider alternative areas in the Firth of Thames could absorb customary fishing displaced from the proposed marine farms because:

- the substrate beneath the proposed marine farms, dominated by soft mud, is representative of the wider Firth of Thames region.¹⁷ No information suggests the application sites offer fishing opportunities (for example, habitat, species, methods) specific to them;
- the same methods as those used at the areas of the proposed marine farms could be used elsewhere in the Firth of Thames;
- there are sufficient alternative areas for the methods that are excluded from within mussel farms; and
- the popularity of mussel farms for recreational fishers is likely to be the case for customary fishers also. This suggests that fishers may be able to use alternative methods within mussel farms in addition to using alternative areas for methods that are excluded from the proposed marine farms.

58 Areas of authorised aquaculture space have reduced the availability of other customary fishing areas over time. The cumulative effects of existing aquaculture are further considered below.

¹⁵ West of Kawau Island, east of Great Barrier Island, east of the Whangaparoa Peninsula and the Hauraki Gulf shipping lane

¹⁶ Long Bay-Okura, Cape Rodney-Okakari Point, Te Matuku and Tawharanui marine reserves.

¹⁷ Britton (2017a) and Britton (2017b).

Increased cost of fishing

59 I consider that the aquaculture activities at the proposed marine farms would result in a minimal, if any, increase in the cost of customary fishing.

60 I consider that any customary fishing excluded from the proposed marine farms could be carried out nearby with minimal additional cost, as a result of a marginal increase in fuel cost or change in method. I consider that most species targeted at the areas of the proposed marine farms could still be taken, using current or alternative fishing methods.

Likely effect on fishing

61 I consider the likely effect on customary fishing from the aquaculture activities proposed in the areas of the application sites would be small.

62 As noted there is little quantitative data available on customary catch taken from the areas of the proposed marine farms or the Firth of Thames generally. Fisheries New Zealand 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, Fisheries New Zealand can only make an assessment of the effect of the proposed aquaculture activities on customary fishing based largely on qualitative information.

63 I consider the effect on customary fishing from the proposed aquaculture activities will be small because:

- not all customary fishing methods would be excluded from the proposed marine farms;
- anecdotal information suggests existing mussel farms are popular recreational fishing locations, particularly rod and line fishing for snapper. Fisheries New Zealand considers it is likely existing farms are popular customary fishing locations also. Fisheries New Zealand has no information to suggest the proposed marine farms will not be popular for customary fishers also;
- the area of the proposed marine farms is small compared to the available area in the Firth of Thames and is unlikely to be of particular importance to customary fishers; and
- alternative areas within the Firth of Thames could absorb the customary fishing displaced from the areas of proposed marine farms.

Cumulative effects

64 I considers effects from the aquaculture activities at the proposed marine farms, added to the effects of existing aquaculture in the Firth of Thames, would not have an undue adverse effect on customary fishing in the Firth of Thames.

65 I acknowledge existing aquaculture in the Firth of Thames has affected customary fishing. There are approximately 2,850 ha of existing aquaculture in the Firth of Thames, predominately in the outer half of the Firth.

66 As noted, there is limited quantitative data available to assess the cumulative effects of authorised aquaculture on customary fishing. Therefore, Fisheries New Zealand can only assess cumulative effects on customary fishing based on the amount of aquaculture already authorised in the relevant customary fishery and the likely importance of the areas of the proposed marine farms for fishing.

67 However, I consider the cumulative effects on customary fishing will not be undue because:

- some customary fishing (eg, rod and line fishing) can still occur within marine farms. This is a popular method of customary fishing in the Firth of Thames;
- anecdotal evidence suggests that mussel farms are a popular location for recreational rod and line fishing, particularly for snapper. It is likely marine farms will be similarly popular for customary fishing also;
- not all existing farms are located in popular customary fishing areas; and
- as noted, I consider the adverse effects on customary fishing of the proposed marine farms is small. Taking into account effects of existing marine farms I am satisfied the effect on customary fishing will not be undue.

Commercial fishing

68 I am satisfied the aquaculture activities that may operate within the proposed marine farms will not have an undue adverse effect on commercial fishing because:

- a negligible amount of commercial fishing is likely to occur in the areas;
- a negligible amount of commercial fishing is likely to be excluded from the proposed marine farms;
- there are alternate fishing grounds in the Firth of Thames, SA007 and the relevant QMA1 for any fishing excluded from the proposed marine farms;
- occupation of the proposed marine farms will result in a minimal, if any, increase in the cost of commercial fishing;
- effects on commercial fishing catch will be negligible; and
- the additional adverse effect on commercial fishing is only small and will not cause the cumulative effect on commercial fishing for any fish stock to become undue.

69 The above conclusions were reached following the more detailed assessment below and includes the information in the submission from Westpac Mussels.

Location of the coastal permit areas relative to fishing areas

70 I consider the proposed marine farms are located where there is a small amount of commercial fishing. This is predominately by lining and set netting methods. A year round trawl and Danish seine closure exists in the areas, and the take of scallops is prohibited.

71 The Firth of Thames is within Fisheries Management Area 1 (**FMA1**) (Map 3). Historically, most commercial fishing has been reported by statistical area. The area of the proposed site is in general statistical area 007 (**SA 007**), which covers the Hauraki Gulf and Firth of Thames from Takatu Point on Tawharanui Peninsula to Te Kawau Point on Coromandel Peninsula (259,486 ha). Further detail on fisheries management and statistical areas is available in Appendix E.



Map 3. Fisheries Management Area 1 (FMA1). Insert shows approximate location of proposed marine farms.

72 Fisheries New Zealand has assessed the main fisheries, bathymetry and habitat known to occur in SA 007 and the relative amounts of fishing that reported in location SA 007 generally, or to specific coordinates within SA 007. Fisheries New Zealand has used this, along with institutional information to inform Table 3 and the commercial fishing assessment below. Further detail on how Fisheries New Zealand analyses commercial fishing can be found in Appendix E.

73 As noted, Fisheries New Zealand considers a small amount of commercial fishing occurs at the proposed marine farms. Snapper, kahawai and flatfish are the main species targeted in SA 007. Long lining and set netting are the main methods used. As shown in Table 3, most set net fishing is reported by statistical area only. As a result there is increased uncertainty as to where this type of fishing has occurred. However, set net fishing in this area mostly occurs from small vessels and the catches are landed to a variety of positions around the coastline and not just to the main ports. The reported landing locations can narrow down the likely location of fishing within the wider SA 007 and this information is used where possible. This is discussed further in Appendix E.

Table 3: Fisheries that are included in the commercial fishing assessment

Fishery segment (main fishstock or depth range and main fishing method)¹⁸	Statistical area	% of fine scale reporting	Average annual no. fishing days¹⁹	% of main fishstock caught in statistical area	Potentially affected by coastal permits?	Rationale for excluding fishery from proposed farm assessment²⁰
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	

¹⁸ Main fishstock refers to the species most often caught by the relevant method, it does not include all species taken by that method.

¹⁹ Excludes segments with less than five days fishing per year.

²⁰ 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 reporting	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
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	
Mixed, Bottom Long Line	007	74%	7	N/A	Yes	
Pilchard, Purse Seine	007	0%	9	0%	No	The low number of fishing days (<10) are unlikely to occur in the coastal permit areas.
Albacore, Troll	007	0%	5	0%	No	The low number of fishing days (<10) are unlikely to occur in the coastal permit areas.
Snapper, Danish Seine	007	25%	3	8%	No	This type of fishing is prohibited at the coastal permit areas.
Snapper, Bottom Trawl	007	100%	3	8%	No	This type of fishing is prohibited at the coastal permit areas.
Scallops, Dredge	2Y	0%	128	0%	No	This type of fishing is prohibited at the coastal permit areas.
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 areas do 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 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 areas do not include this habitat type.
Parore, Ring Net	007	0%	49	29%	No	Parore are mainly associated with reef and algal habitats and are unlikely to be targeted in the coastal permit areas.
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 areas.

Exclusion of fishing

74 I consider that some commercial fishing will be excluded from the areas of the proposed marine farms. Westpac Mussels submitted that a minor proportion of commercial fishing, if any, would be excluded.

75 The fishing methods likely to be affected, lining, set netting and the other methods are able to be used immediately adjacent to authorised aquaculture sites so only the areas of the proposed farms themselves are likely to be removed from the commercial fishing space available to these methods. No additional buffer zones have been added.

76 Although diving could occur within the proposed site, I consider it unlikely that species caught with this method would be targeted at the proposed site due to changes to the benthic habitat. Hand lining could still occur within the proposed site.

77 No exclusion buffer around the proposed marine farms have been added for dredging. Scallop fishing is prohibited in the Firth of Thames and there is not an oyster fishery in the region. As a result, I consider it is unlikely that any dredging occurs in the vicinity of the proposed marine farms.

Availability of other fishing areas

78 I am satisfied there are alternative areas in the Firth of Thames and other parts of SA 007 that could absorb any commercial fishing displaced from the proposed marine farms because:

- the same methods as those possibly displaced are used elsewhere in the Firth of Thames or other parts of SA 007²¹ and in the relevant QMAs or FMA1;
- the species potentially targeted by commercial fishers within the proposed site are typically found over mud substrate common throughout the rest of the Firth of Thames, elsewhere in SA 007 and in the relevant QMAs or FMA1; and
- the area excluded to commercial fishing is assessed to be small compared to the available area.

79 Areas of authorised aquaculture space have reduced the availability of other commercial fishing areas over time. The cumulative effects of the existing aquaculture is considered further below.

Increased cost of fishing

80 I consider that the aquaculture activities at the proposed marine farms will have a negligible effect, if any, on the cost of commercial fishing. Westpac Mussels submitted that development of the proposed marine farms will not increase the cost of commercial fishing.

81 While the proposed marine farms are 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 proposed marine farms will only exclude a relatively small area from commercial fishing compared to the area of similar fishing habitat that is available. Fisheries New Zealand has no information to suggest these fishing grounds available nearby are any less productive.

²¹ Few closures or restrictions in SA007 limit alternative areas for methods permitted in the Firth of Thames (ie, set netting and lining for taking finfish, and dredging, diving and other methods for taking non-fish species (other than scallops)). Numerous small closures elsewhere in FMA1 limit alternative available areas, particularly for set netting, although not to a large extent.

Likely effect on fishing

82 I consider the aquaculture activities at the proposed marine farms will have a small adverse effect on commercial fishing. Westpac Mussels have submitted that the proposed marine farms will have a negligible impact on commercial fishing opportunities.

83 Fisheries New Zealand estimates that approximately 375 kg and 150 kg of annual average catch of all species would be displaced by the aquaculture activities authorised by coastal permits CST60303341 and CST60303342 respectively. Fisheries New Zealand used CatchMapper, a tool for analysing commercial fishing data,²² to calculate the above estimates of affected catch.

84 Snapper (SNA1) is the fish stock with the most catch affected, making up approximately 370 kg of the catch estimated to be potentially displaced by both proposed marine farms. This equates to approximately 0.01 % of the TACC for SNA1. Set netting for rig (SPO1) is a fishery also affected, with approximately 60 kg of catch per year displaced out of an average of over 320 tonnes taken annually.

85 Given the relatively small catch of all species likely to be affected by the proposed aquaculture activities, Fisheries New Zealand 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 application sites would be lost from the affected fisheries and no replacement catch would be available from other areas.

Cumulative effects

86 I consider existing aquaculture in the Firth of Thames has affected commercial fishing. However, I consider the cumulative effects on commercial fishing, including the aquaculture activities at the proposed marine farms, will not be undue. Westpac Mussels submitted that the cumulative effect is negligible.

87 There are around 2,850 ha of authorised aquaculture space in the Firth of Thames. There is also approximately 3,300 ha of marine farms in SA 007 that make up about 28% of the 11,650 ha of aquaculture in FMA1.

88 Fisheries New Zealand acknowledges that aquaculture development in the Firth of Thames has occurred in areas important to commercial fishing, particularly for snapper and inshore set netting. This aquaculture development has had a cumulative effect on commercial fishing in the Firth of Thames.

89 The cumulative effect of the proposed marine farms in addition to all previous authorised marine farming has been assessed for all fishstocks and the largest cumulative effects to date amount to less than 1% of any fishery²³, and is not considered to be undue.

90 Fisheries New Zealand's assessment of cumulative effects is based on the assumption that all of the catch displaced from areas of authorised aquaculture activities would be lost from the affected fisheries. However, finfish in particular are mobile and, though they will likely pass through marine farms, can be caught outside of the farms. As a result, Fisheries New Zealand considers the actual levels of cumulative effects are likely to be less than assessed.

²² See Appendix E for more information.

²³ Largest cumulative effects to date added to by proposed marine farms are Spiny dogfish (SPD1) and flatfish (FLA1) both estimated at 0.8 % of the respective fisheries.

AQUACULTURE DECISION – RANGIPAKIHI MARINE FARM

91 I am satisfied – based on all relevant information available to me – the activities proposed for coastal permit area CST60303341 not have an undue adverse effect on:

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

92 Accordingly, my decision is a determination for coastal permit CST60303341 with regard to:

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

93 The area of the determination on recreational, customary and commercial fishing is 171 ha comprising an area with the following coordinates (NZTM2000):

<u>Point</u>	<u>Easting</u>	<u>Northing</u>
1	1807334.7	5912568.7
2	1806616.6	5912039.6
3	1807733.2	5910502.5
4	1808461.5	5911031.4

94 The reason for my decision is set out in the conclusions for recreational, customary and commercial fishing in this report.



David Scrannay
Manager Customary Fisheries and Spatial Allocations
Fisheries New Zealand – Tini a Tangaroa
Ministry for Primary Industries – Manatū Ahu Matua

Dated 18 December 2018

AQUACULTURE DECISION – WAITOETOE MARINE FARM

95 I am satisfied – based on all relevant information available to me – the activities proposed for coastal permit area CST60303342 not have an undue adverse effect on:

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

96 Accordingly, my decision is a determination for coastal permit CST60303342 with regard to:

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

97 The area of the determination on recreational, customary and commercial fishing is 128.2 ha comprising an area with the following coordinates (NZTM2000):

<u>Point</u>	<u>Easting</u>	<u>Northing</u>
1	1805595.2	5902174.8
2	1804995.2	5902185.9
3	1805742.7	5900028.9
4	1806338.9	5900028.9

98 The reason for my decision is set out in the conclusions for recreational, customary and commercial fishing in this report.



David Scranney
Manager Customary Fisheries and Spatial Allocations
Fisheries New Zealand – Tini a Tangaroa
Ministry for Primary Industries – Manatū Ahu Matua

Dated 18 December 2018

References

Britton, R. 2017a. Assessment of effects on the environment. Resource consent application Westpac Mussels Distributors Ltd – Rangpakihi, Central Firth of Thames. Prepared by Robin Britton, Resource Management / Planning Consultant.

Britton, R. 2017b. Assessment of effects on the environment. Resource consent application Westpac Mussels Distributors Ltd – Waitoetoe, Southern Firth of Thames. Prepared by Robin Britton, Resource Management / Planning Consultant.

Hartill, B.; Bian, R.; Armiger, H.; Vaughan, M.; Rush, N. 2007. Recreational marine harvest estimates of snapper kahawai and kingfish in QMA1 in 2004-05. New Zealand Fisheries Assessment Report 2007/26. 44p.

APPENDIX A: SITE AND STRUCTURES MAPS

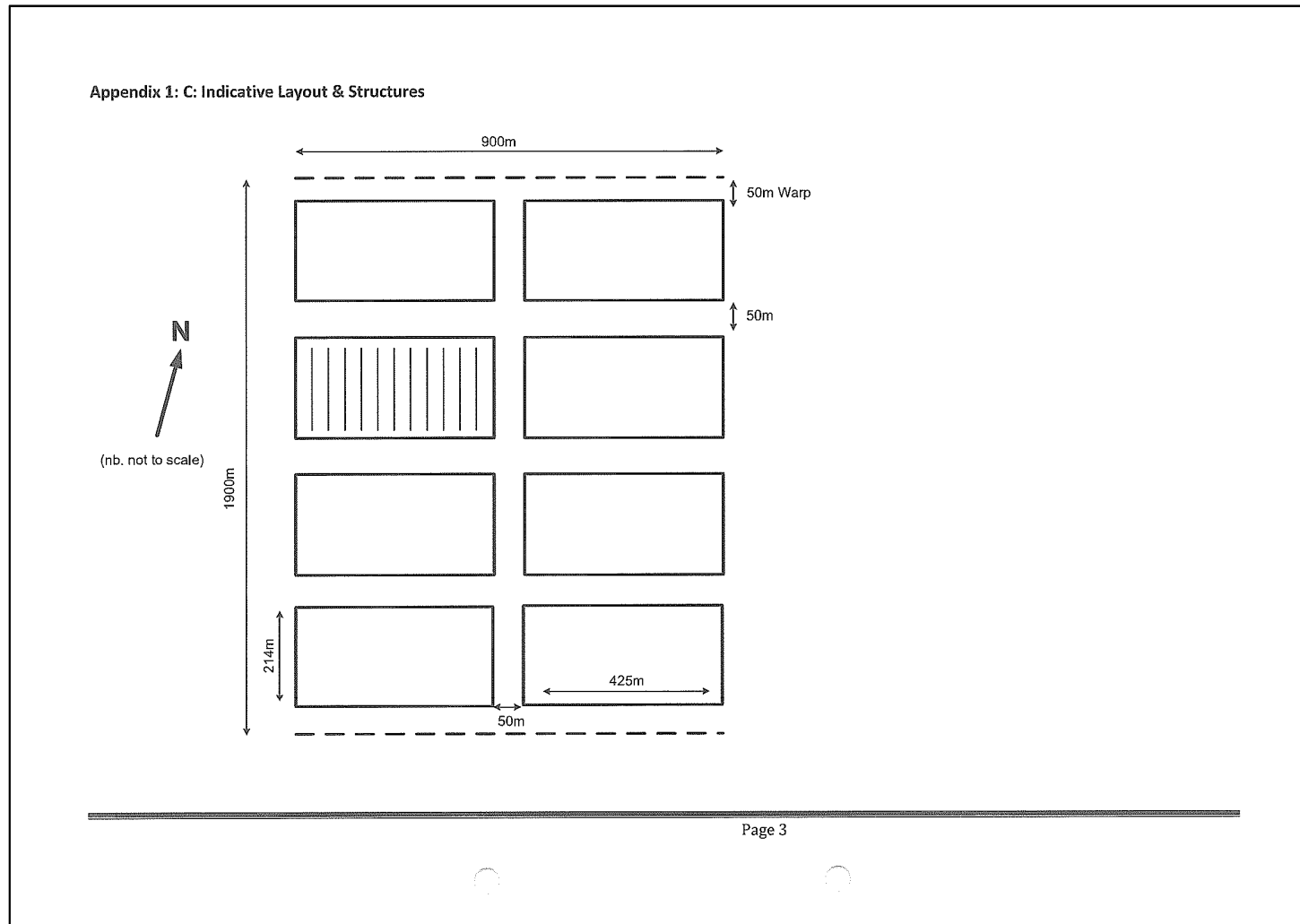
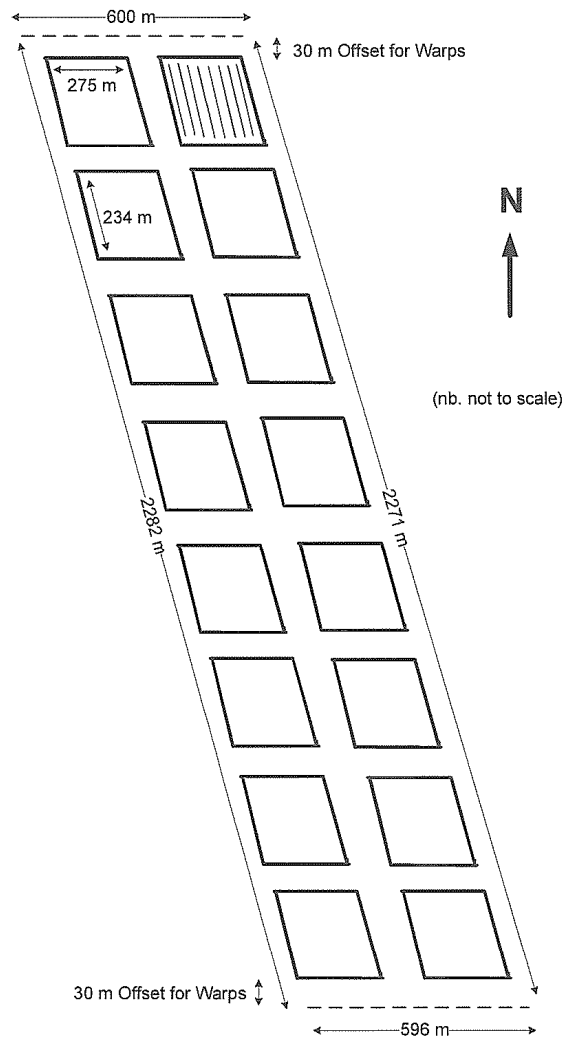


Figure 1. Site map showing layout of blocks of longlines for coastal permit CST60303341.

Appendix 1C Indicative Layout



- 16 blocks 275 m x 234 m
- Access ways between 46 m & 50 m.

Figure 2. Site map showing layout of blocks of longlines for coastal permit CST60303342.

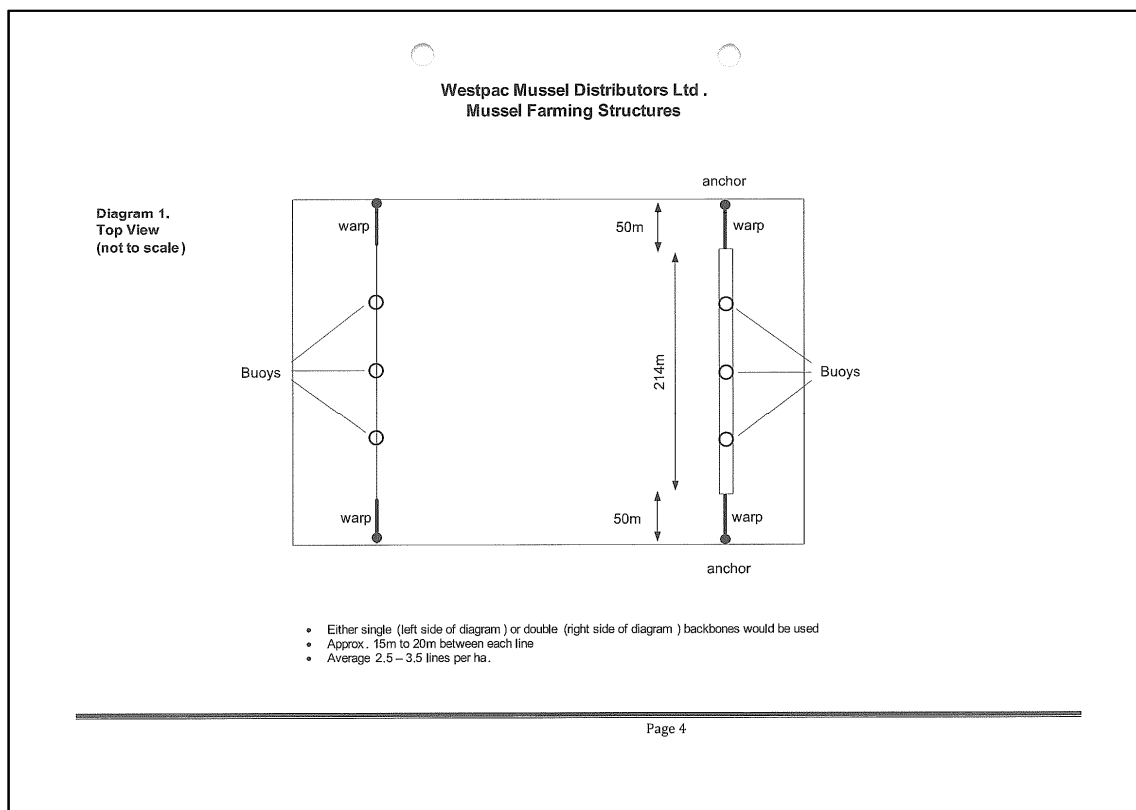


Figure 3. Site map showing surface layout of longlines for coastal permits CST60303341 and CST60303342.

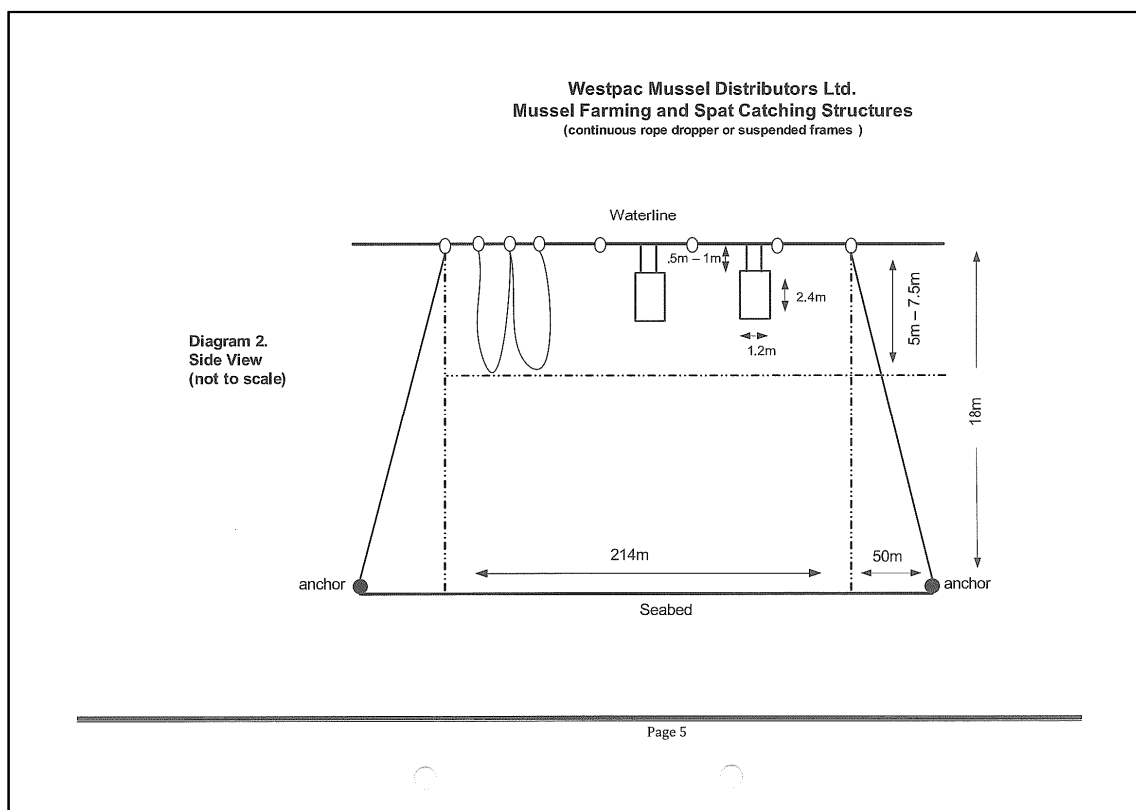


Figure 4. Site map showing in water layout of longlines for coastal permits CST60303341 and CST60303342.

APPENDIX B: TANGATA WHENUA AND STAKEHOLDERS CONSULTED WITH BY FISHERIES NEW ZEALAND

Tangata whenua	Recreational fishers	Commercial fishers
Ngai Tai ki Tamaki	Recreational fishing Council-Keith Ingram	Te Ohu Kaimoana
Ngati Maru	The New Zealand Sports Fishing Council	Fisheries Inshore New Zealand
Ngati Hei	Spearfishing New Zealand	Whitianga and Coromandel Peninsula Fishermen's Association
Ngati Paoa	Tony Fox (Mercury Bay Game Fish Council (MBGFC) & Thames Coromandel District Council)	Brian McMillen, P.A. & G.A. Thorburn (Piako Petes Ltd.)
Ngati Tamatera	Gordon McIvor (MBGFC Committee)	Ngati Whatua Fisheries Ltd
Ngati Porou ki Harataunga	Mussel Barge Snapper Safaris	Southern Cross Fishing
Ngati Hako	Anglers Lodge Ltd	Leigh Fisheries
Ngati Pukenga	Russell John Chesnutt, Lorraine Margret Anderson	SNA 1 Commercial (C/- Alison Undorf-lay, Industry Liaison Manager)
Patukirkiri	Coromandel Fishing Adventures Limited	Brian McMillen
Ngati Whanaunga	Coromandel Fishing Charters 2013 Limited	Rob Billings
Tara Tokanui	Kiwisport Fishing Limited	Ted Howard
Rahiri-Tumutumu	Fishntits Charters Limited	Rex Smith
Ngaitai	GT Works LTD	
	MHG Enterprises Limited	
	Daniel John Finnerty	

APPENDIX C: SUBMISSION FROM APPLICANT

Submission to Fisheries New Zealand
Regarding Aquaculture Decisions on Resource Consent Applications
Rangipakihī and Waitoetoe Marine Farms, Firth of Thames

Application Numbers: CST60303341 and CST60303342
Westpac Mussels Distributors Limited

1. Thank you for the opportunity to submit on the aquaculture decisions to be made in respect of Westpac Mussels Distributors Limited's (**Westpac Mussels**) proposed marine farms at Rangipakihī and Waitoetoe. These marine farms are both located in the Firth of Thames, within the Hauraki Gulf in the Auckland region (see **Appendix 1** for a map showing the location of the proposed farms).
2. The matters that the Chief Executive of Fisheries New Zealand must have regard to in making an aquaculture decision are set out in section 186GB of the Fisheries Act 1996, and these matters are addressed in turn in the following submission.
3. **Location of the proposed marine farm areas in relation to areas in which fishing is carried out**
 - 3.1 Rangipakihī is located in the central Firth of Thames, within the Auckland Council region. The farm lies approximately 7.8km from the western shoreline of the Firth of Thames, and 8.3 km from the eastern shoreline. This proposed farm site is 171 hectares. It is located in water depths of 20-25m, over mud-dominated substrate. Within the farm area it is proposed that there would be 8 farm blocks, separated by 50m navigation fairways.
 - 3.2 Waitoetoe is located in the south-eastern reaches of the Firth of Thames, within the Auckland Council region. The farm lies approximately 1.2km offshore from the south-eastern Firth of Thames shoreline. The overall proposed site is 128.2 hectares. It is located in water depths of 8-10m, over mud-dominated substrate. Within the overall site it is proposed that there would be 16 farm blocks, separated by 50m navigation fairways.
 - 3.3 The waters in the Firth of Thames are used for recreational fishing all year round, but particularly over the summer months. In the proposed farm areas, due to the distance from shore, fishing would only occur from vessels. The existing mussel farms within the Firth of Thames are a common destination for fishers. This reflects that farms operate as a shelter habitat akin to a fish aggregation device, and that fish predate the mussels and/ or other fish attracted to the area. It is generally known from experience with other existing farms that the presence of mussel farms provides additional fishing opportunities. It is therefore expected that the two proposed marine farms will provide similar additional recreational fishing opportunities.
 - 3.4 Consultation was undertaken with iwi as part of the resource consent process in respect to these two proposed sites and cultural issues associated with fishing in the proposed areas were addressed in the decision on the location of the farms. Westpac Mussels has developed a formal partnership with Ngāti Whanaunga ki Wharekawa and Te Whanau a Hanunui Ahuwhenua Trust. These iwi are the most directly affected by the proposed farm areas and support the proposed farms. There are no formalised customary fishing management areas in the Firth of Thames. However, Ngāti Whanaunga has advised that individuals appointed by Ngāti Whanaunga ki Wharekawa and Ngāti Paoa issue customary fishing permits for cultural purposes in the Firth of Thames. Ngāti Whanaunga ki Wharekawa has also advised that the area occupied by the farms is well frequented by iwi for recreational fishing and their view is that the farms will improve recreational fishing.
 - 3.5 The Firth of Thames is open to all commercial fishing methods except trawling and Danish seining. The main species targeted for commercial catch are snapper and kahawai. While widespread commercial fishing does occur within the Firth of Thames, the proposed farm areas represent a small proportion of the total fishery area. It is considered that the proposed marine farms would have a negligible impact on commercial fishing catch opportunities, given the size of the fishery and the ban on trawling and Danish seining.

Westpac Mussels Distributors Limited, 2018

The location of the farms is consistent with Sea Change – Tai Timu Tai Pari

- 3.6 The Hauraki Gulf Marine Park Act 2000 (HGMPA) establishes the Hauraki Gulf Forum (**Forum**) to promote the management objectives set out in the Act and to facilitate integrated management to achieve the objectives. Members of the Forum include representatives of the Ministers of Conservation, Primary Industries and Māori Affairs, the regional and territorial councils which have catchments and/ or marine functions associated with the Hauraki Gulf, and tangata whenua of the Hauraki Gulf and its islands (appointed by the Minister of Conservation). The purposes of the Forum include integrating the management of the Gulf, facilitating communication, co-operation and co-ordination of members' statutory functions exercised within the Gulf, and recognising the historic, traditional, cultural, and spiritual relationship of tangata whenua with the Gulf.
- 3.7 The Forum has developed a marine spatial plan: Sea Change – Tai Timu Tai Pari (**MSP**). This plan is based on a significant collaborative effort between mana whenua, local and central government agencies, and local communities and interest groups. The MSP includes a number of significant principles, proposals and innovative measures to manage and protect the Gulf. One of the visions of the MSP is *"the return of Hauraki Gulf/ Tikapa Moana as a place that is vibrant with life, has a strong mauri, is productive and supports healthy and prosperous communities."* The two proposed farm sites are aligned with the vision of the MSP.
- 3.8 The MSP recognises fish stocks and aquaculture as key management issues for Hauraki Gulf (MSP Part Two). Chapter 4 focusses on "replenishing the food basket", while Chapter 5 focuses on Aquaculture. Chapter 5 identifies in map 5.1 that the two proposed farm areas are located in appropriate areas (as sites 2 and 12) (refer **Appendix 2**). The MSP was subject to an extensive public process, including from fisheries interests. Therefore the MSP is relied on in support of the two proposed farm areas being located in appropriate locations, with respect to any impacts on fisheries interests.
4. **The likely effect of the aquaculture activity on fishing, including the proportion of fishery likely to be affected**
- Commercial Fishing*
- 4.1 Included as **Appendix 3.1** is a large scale overview of the commercial fishing effort in the Firth of Thames for the current fishing year (October 2017 – present) as recorded on Ministry for Primary Industries' (MPI) National Aquatic Biodiversity Information System (**NABIS**). This overview indicates that there is high use of the relevant area for commercial fishing.
- 4.2 NABIS indicates that 170 to 800 vessel fishing days have been recorded in the wider Firth of Thames over the period October 2016 - February 2018.
- 4.3 **Appendix 3.2** sets out a table of the commercial catch by species, by kilogram, for the period October 2016 - February 2018 as recorded on **NABIS**. The two most prolifically caught species are snapper and kahawai, followed by rig and flounder.
- 4.4 Without access to catch data specific to the two proposed sites, it is difficult to determine the proportion of fishery likely to be affected. Further information had been requested from Fisheries New Zealand to show fishing activity in the Firth of Thames at a finer spatial scale (to 1nm scale where such information exists) to enable a more precise evaluation of commercial fishing activity in the vicinity of the two proposed marine farms. We have not yet received this information. However, based on the size of the two farms in proportion to the size of the fishing catch areas, as shown in **Appendix 3.1**, and taking into account the trawl ban and Danish seine ban, it is considered that the proposed aquaculture farms would have a negligible impact on commercial fishing catch opportunities.
- Customary Fishing*
- 4.5 The proposed aquaculture farms are unlikely to have any impact on areas of cultural significance for fishing.

- 4.6 Ngāti Whanaunga ki Wharekawa and Te Whanau a Hanunui Ahuwhenua Trust are the iwi most directly affected by the proposed farms and they support the proposal. Refer in particular, to the information in the resource consent application setting out iwi views in support of the two proposed farms, and which support this submission.
- 4.7 There are no formalised customary fishing areas (such as Taiapure, Mātaitai, rohe moana or other areas controlled by any Customary Fishing Notice). This is confirmed on the NABIS map in **Appendix 4**. Therefore, there is no effect from the proposed farms on any formalised customary fishing areas.
- 4.8 Ngāti Whanaunga ki Wharekawa has provided advice that some customary fishing for cultural purposes does occur in the Firth of Thames, however this is not strictly monitored or recorded. It is understood that individuals have been appointed by Ngāti Whanaunga ki Wharekawa and Ngāti Paoa and to issue customary fishing permits for the Firth of Thames for cultural purposes.
- 4.9 It is noted that both Ngāti Whanaunga ki Wharekawa and Te Whanau a Hanunui Ahuwhenua Trust have lodged applications seeking customary marine title and protected customary rights under the Marine and Coastal Area (Takutai Moana) Act 2011 (**MACA**) in respect of the application areas. These applications have yet to be determined by the High Court. Under MACA, all fishing rights under the Fisheries Act are preserved, and a protected customary right does not include an activity that is regulated under the Fisheries Act 1996.

Recreational Fishing

- 4.10 Due to the popularity of the Firth of Thames for recreational fishers, and based on existing boating behaviours, it is assumed that the proposed farm areas would attract and be used by recreational fishers, particularly during the summer months.
- 4.11 The proposed aquaculture farms would have a minor impact on recreational fishing access (discussed further under section 5 below), but the proposed farms are also likely to have an overall positive impact on fishing opportunities, as evidenced by the frequent use by fishers of other marine farm areas in the Firth of Thames.
- 4.12 This assessment is supported by the NABIS map showing recreational fishing effort in the Firth of Thames (refer to **Appendix 5**). This map shows that existing farms in the Firth of Thames are high use areas for fishing, and that existing farms in the Firth of Thames do not exclude fishing opportunities. The proportion of the fishery likely to be affected is therefore considered to be negligible.
- 4.13 No recreational diving occurs within the proposed farm areas, due to the muddy bottom and the absence of shellfish beds or other reef-type habitats.
- 4.14 It is therefore considered that the likely effect of the two proposed farms on recreational fishing, including the proportion of fishery likely to be affected, is negligible.

5. The degree to which the aquaculture activity will lead to the exclusion of fishing

- 5.1 Both of the proposed aquaculture farms are located over a muddy substrate. There are no seabed or habitat features that would particularly attract fish to these areas.

Commercial Fishing

- 5.2 As noted above, without access to catch data specific to the two proposed sites, it is difficult to determine the proportion of commercial fishing may be excluded due to the proposed farms. We have requested further information from MPI to show fishing activity in the Firth of Thames at a fine spatial scale (to 1nm scale where such information exists) which may enable a more precise evaluation of commercial fishing activity in the vicinity of the two proposed marine farms. We have not yet received this information. However, due to the trawl ban and Danish seine ban in the Firth of Thames and the size of the proposed farms compared to the fishery catch areas, it is considered that only a minor proportion of commercial fishing, if any, would be excluded.

Customary Fishing

- 5.3 The two proposed marine farm areas are not expected to exclude customary fishing to any significant degree (as discussed in section 4).
- 5.4 There are no formalised customary fishing areas (such as Taiapure, Mātaitai, rohe moana or other areas controlled by any Customary Fishing Notice) (as shown in **Appendix 4**).
- 5.5 Ngāti Whanaunga ki Wharekawa has advised that some customary fishing does occur in the vicinity of the proposed farms under customary fishing permits but that the proposed farms would not affect this.
- 5.6 The locations of the proposed farms will not exclude the ability for iwi to utilise customary fishing permits, as this fishing can still occur, and may be enhanced by the presence of the proposed farms.
- 5.7 Cultural issues associated with fishing in the proposed areas were discussed with iwi during the resource consent process, and no issues were identified. Ngāti Whanaunga ki Wharekawa and Te Whanau a Hanunui Ahuwhenua Trust are supportive of the proposed farms.

Recreational Fishing

- 5.8 As identified above and indicated in **Appendix 5**, it is expected that occasional recreational fishing would occur in each of the proposed farm areas.
- 5.9 The aquaculture farms do not seek exclusive occupation of the area and recreational fishing could still take place between the marine farming blocks (50m gaps) and between the lines (15-20m gaps). The positioning of the farm sites overall and the blocks within the proposed farm area, would allow for boat access to these proposed farm areas for fishing purposes.
- 5.10 Based on the consent applicant's experience of mussel farms (and acknowledging this as general knowledge), recreational fishing would be enhanced, as several fish species are predators of the mussels on the lines (and of other fish attracted within the farm area). The mussel structures also provide additional habitat for a wide variety of fish species (particularly snapper) to shelter within the farm. It is common practice for fishers to tie their boats up to the buoys of existing farms and fish within the farm space.
- 5.11 The degree to which the aquaculture activity will lead to the exclusion of commercial, recreational or customary fishing is therefore considered to be negligible.

6. The extent to which fishing for a species can be carried out in other areas

Commercial Fishing

- 6.1 There is a trawl ban and Danish seine ban in the Firth of Thames. However, it is also considered that any commercial fishing that does occur in the Firth of Thames can also be carried out elsewhere, given the large scale of the stock management areas. The maps provided in **Appendices 3.1 and 3.3** provide an overview of these areas. It is also noted that mussel farms attract fish, in particular snapper, thereby potentially enhancing the stock (through feed and shelter) and enhancing catch opportunities (by their presence).

Customary Fishing

- 6.2 As discussed in section 5 above and shown in **Appendix 4**, there are no formal customary fishing areas within the proposed areas of the two farms. Some customary fishing does occur in the vicinity of the proposed farms, however iwi have supported the farms due to the positive effects they have on fisheries.
- 6.3 There is no information to suggest that the locations of the proposed farms offer customary fishing opportunities specific to these areas, and there are other areas available for customary fishing in the wider Firth of Thames.

Recreational Fishing

- 6.4 Recreational fishing can continue to occur within the proposed farm areas. As discussed above and shown in **Appendix 5**, it is also considered that recreational fishing would be enhanced by the presence of the farm and can continue in and around the proposed farm blocks.

7. The extent to which the occupation of the coastal marine area will increase the cost of fishing

- 7.1 The main cost to fishing as a result of occupation of space in the Firth of Thames by the two proposed farms relates primarily to a potential slight alteration in vessel routes to avoid the proposed farm. There would be no increased costs to commercial, recreational or customary fishing as vessels are able to easily transit past the proposed farm sites to other fishing grounds.
- 7.2 Another potential cost may result from the loss of space in which to fish. It is considered that there would be negligible, if any, effect on costs of commercial fishing (due to the reasons outlined in the submission above). There would be no clear costs on customary fishing and recreational fishing, rather it is considered that for the reasons provided above, such fishing would be enhanced by the presence of the marine farm.
- 7.3 It is therefore considered that the occupation of the coastal marine area will not increase the cost of fishing.

8. The cumulative effect on fishing of any aquaculture activities

- 8.1 There are existing consented mussel farms in the Firth of Thames located at Waimango Point (Auckland region), as well as two blocks of farms at Wilson Bay in the Waikato region which are appropriate to consider from a cumulative effects perspective.
- 8.2 The combined number of hectares used for mussel farming in this mid-southern stretch of the Firth of Thames is 1200 ha. There are 80 farmed ha located at Waimango Point and 1120 farmed ha in the two blocks at Wilson Bay.
- 8.3 For Waitoetoe, the closest other existing mussel farms are located 450m away at Waimango Point. For Rangipakihi, the closest other existing mussel farms are 950m away at Waimango. There are also some inshore oyster farms south of Maraetai and to the north-east of Waimango Point.

Commercial Fishing

- 8.4 The NABIS map in **Appendix 3.3** shows a number of areas in the Firth of Thames as being "current marine farm applications". This map is significantly out of date. Some of these areas have been withdrawn and some have been reconfigured. It is not appropriate to consider this map as part of the cumulative effects assessment.
- 8.5 The commercial fishing effort area shown in **Appendix 3.1**, is a large area compared to the combined size of the farms subject to this submission, and when considered in conjunction with other existing mussel farms. Due to the location of the farms, there is no impact on any oyster, scallop or other benthic fisheries. It is also considered that commercial fishing practices could readily continue around the farm areas, with minimal deviation of vessel tracking.
- 8.6 It is therefore considered that the cumulative effects of mussel farms on other commercial fishing is negligible.

Customary Fishing

- 8.7 The cumulative effect of mussel farming on customary fishing is not able to be determined. However, as discussed above, no issues were identified by Ngāti Whanaunga ki Wharekawa and Te Whanau a Hanunui Ahuwhenua Trust, both of whom are supportive of the proposed farms.

- 8.8 It is therefore considered that the cumulative effects of mussel farms on customary fishing is negligible, and may be positive.

Recreational Fishing

- 8.9 The cumulative effects of mussel farms in the Firth of Thames is generally considered to be positive, due to the presence of the structures acting as shelter/ habitat, the food supply provided by the mussels and the associated preying of species on others.
- 8.10 It is therefore considered that based on existing experiences with mussel farms, the cumulative effects on recreational fishing will be positive.

9. Conclusions

- 9.1 In conclusion it is considered that there would be no undue adverse effects on fishing.
- 9.2 The importance of the MSP Sea Change – Tai Timu Tai Pari is acknowledged. This MSP supports the establishment of further aquaculture in the Firth of Thames, including in Westpac Mussels' two proposed marine farm locations.
- 9.3 In regards to commercial fishing, my opinion is that the proposed marine farms are unlikely to have any impact on commercial fishing, partially due to the trawl ban and Danish seine ban in the Firth of Thames, but also because of the size of the two farms in proportion to the size of the fishing catch areas. Alternative areas in the Firth of Thames could absorb any commercial fishing displaced by the proposed farms.
- 9.4 In regards to customary fishing, my opinion is that the proposed marine farms are unlikely to have any adverse effects on customary fishing. Ngāti Whanaunga ki Wharekawa and Te Whanau a Hanunui Ahuwhenua Trust, the iwi primarily affected by the proposed farms support the applications. Fishing could still be undertaken within the area of the proposed farms. Additionally, there is no information to suggest that the locations of the proposed farms overlap with customary fishing opportunities specific to these areas, and there are other areas available for customary fishing in the wider Firth of Thames.
- 9.5 In regards to recreational fishing, my opinion is that the proposed marine farms will have no adverse effects on recreational fishing or access to fisheries. The presence of the proposed marine farms will enhance fishing opportunities.

R Britton
Planning Consultant

List of Appendices

- Appendix 1: Location of Rangipakihi and Waitoetoe marine farms in the Firth of Thames
- Appendix 2: Hauraki Gulf Marine Spatial Plan: Map 5.1
- Appendix 3: NABIS: Commercial Fishing
- 3.1 Commercial Fishing Effort
- 3.2 Commercial Catch Overview
- 3.3 Current Marine Farms/ Current Marine Farm Applications
- Appendix 4: NABIS: Customary Fishing
- Appendix 5: NABIS: Recreational Fishing Effort

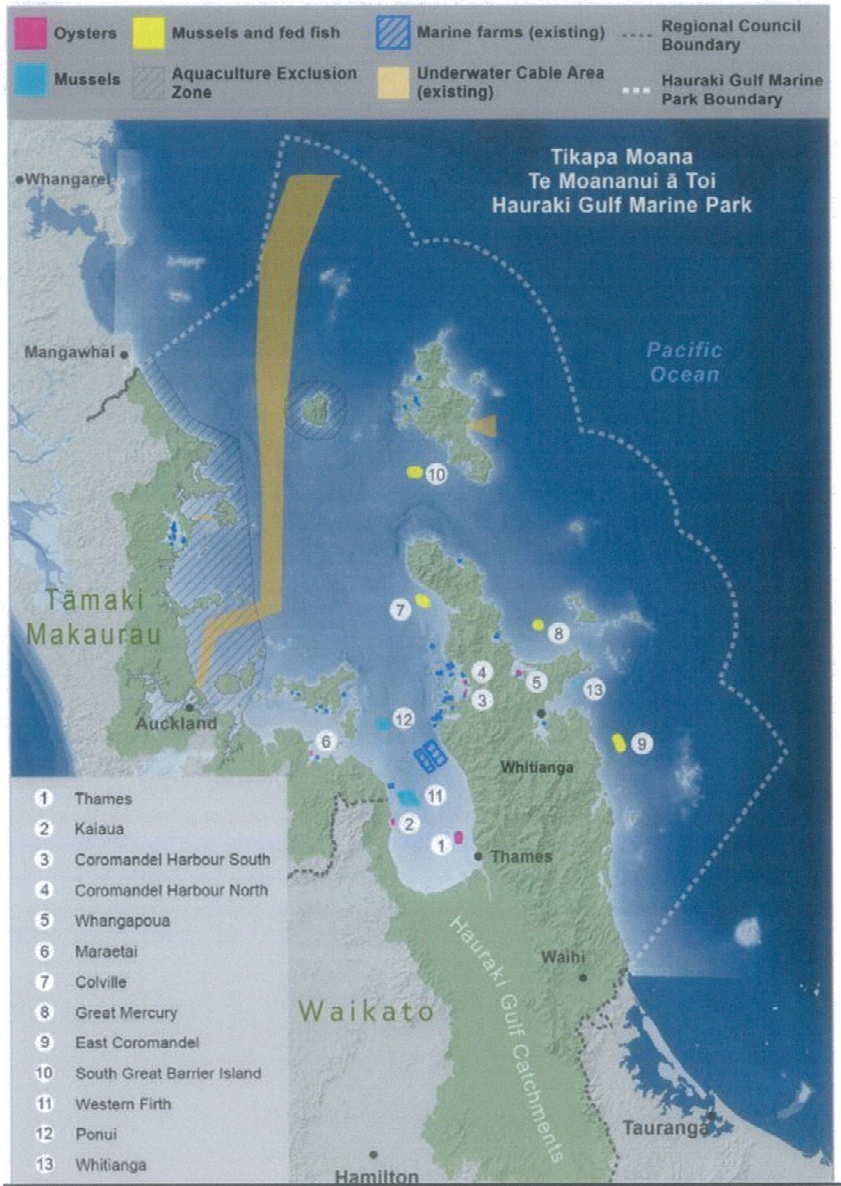
Appendix 1: Location of Rangipakihi and Waitoetoe marine farms in the Firth of Thames



NB: the indicative farm identified as Waimango – Northern Farm has been withdrawn by Westpac and no application has been lodged for this area.

Appendix 2: Hauraki Gulf Marine Spatial Plan Map 5.1

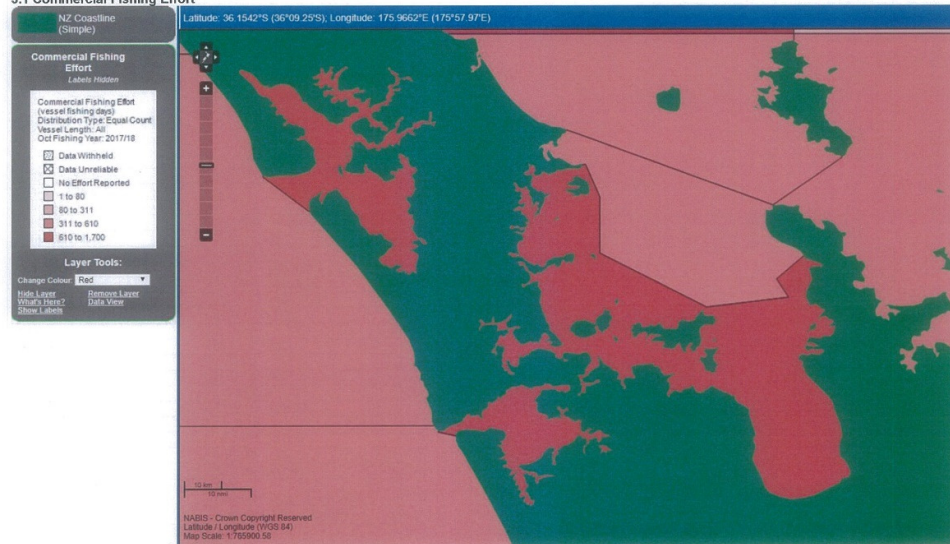
Map 5.1 shows existing aquaculture sites, indicative areas preferred for future aquaculture development, and areas unsuitable for aquaculture. This is further detailed in Appendix 2 to the MSP.



Westpac Mussels Distributors Limited, 2018

Appendix 3: Commercial Fishing

3.1 Commercial Fishing Effort



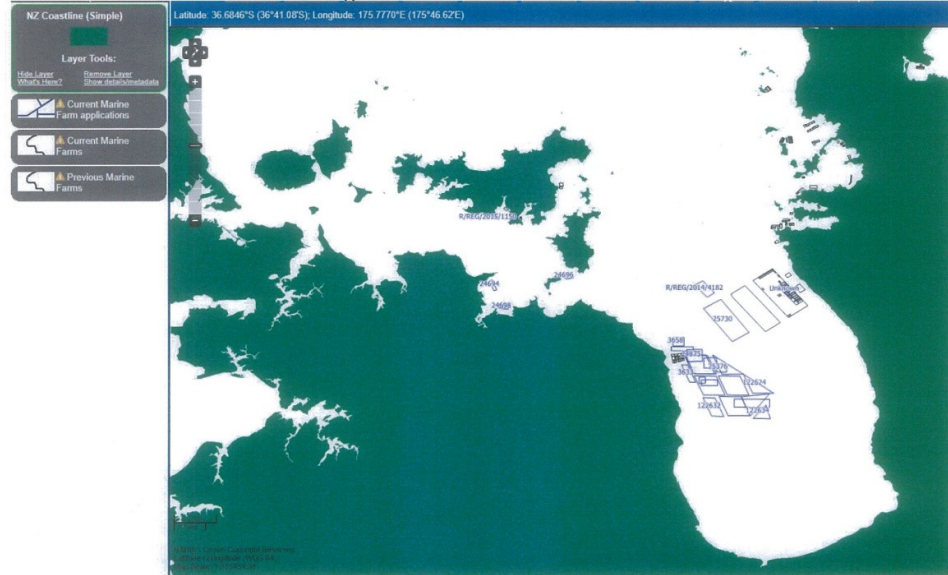
Westpac Mussels Distributors Limited, 2018

3.2 Commercial Catch Overview (data obtained from NABIS)

Species	Commercial Catch (kg) October 2016 - February 2018
Flatfish	27,000-120,000
Gurnard	1-8,300
Jack Mackerel	14,000 - 75,000
John Dory	1 - 3,100
Kahawai	42,000 - 630,000
Kina	1 - 12,000
Kingfish	600 - 2,300
Mako shark	1 - 380
Packhouse rock lobster	900 - 13,000
Paore	1 - 410
Parore	8,700 - 24,000
Pilchard	105,000 - 109,000
Rig	57,100 - 259,000
Sand flounder	22,000 - 159,000
School shark	1 - 5,900
Sea cucumber	300 - 1,600
Snapper	395,000 - 1,150,000
Trevally	1 - 6,900
Yellow belly flounder	19,000 - 129,000
Yellow eyed mullet	2,000 - 13,000

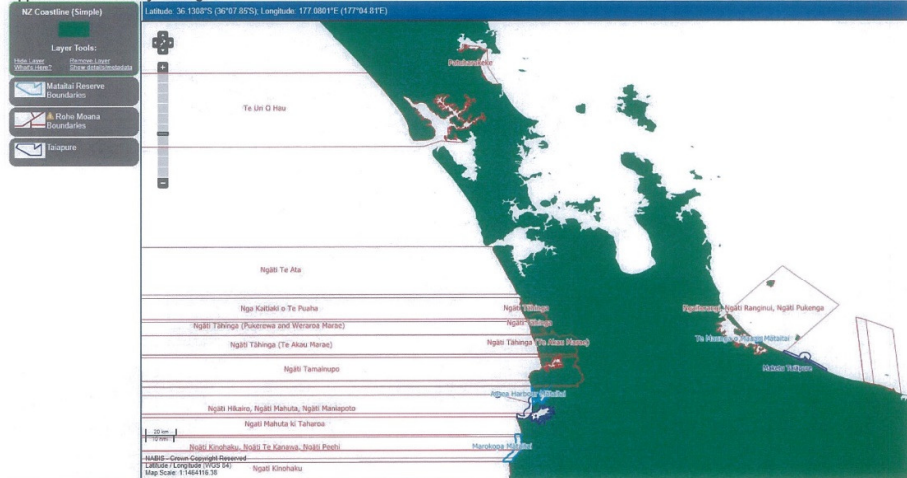
Westpac Mussels Distributors Limited, 2018

3.3 Current Marine Farms/ Current Marine Farm Applications



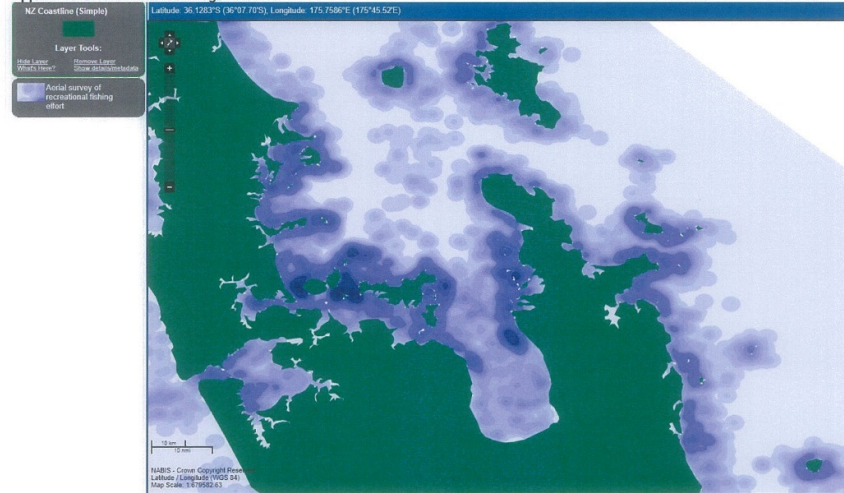
Westpac Mussels Distributors Limited, 2018

Appendix 4: Customary Fishing



Westpac Mussels Distributors Limited, 2018

Appendix 5: Recreational Fishing Effort



Westpac Mussels Distributors Limited, 2018

APPENDIX D: ADDITIONAL STATUTORY CONTEXT

1 Section 186E(3) of the Fisheries Act ²⁴ 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.

2 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.

3 Section 186GB(2) of the Fisheries Act says 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 U170820.

4 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. So 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).

5 I consider the relevant recreational and customary fishery are as I have described in the assessment above in “*Location of the coastal areas relative to fishing area.*”

²⁴ 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.

6 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 recreational and customary fisheries, the relevant areas for considering “cumulative effects” are as I have described in the assessment above in my consideration of section 186GB(1)(a) and (f). Sections 186GB(1)(a) and (f) relate to location at proposed site in relation to where fishing occurs and the cumulative effect of aquaculture, respectively.

7 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.

8 The Kaimoana Regulations and regulation 50 and 51 of the Amateur Regulations²⁵ 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 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.

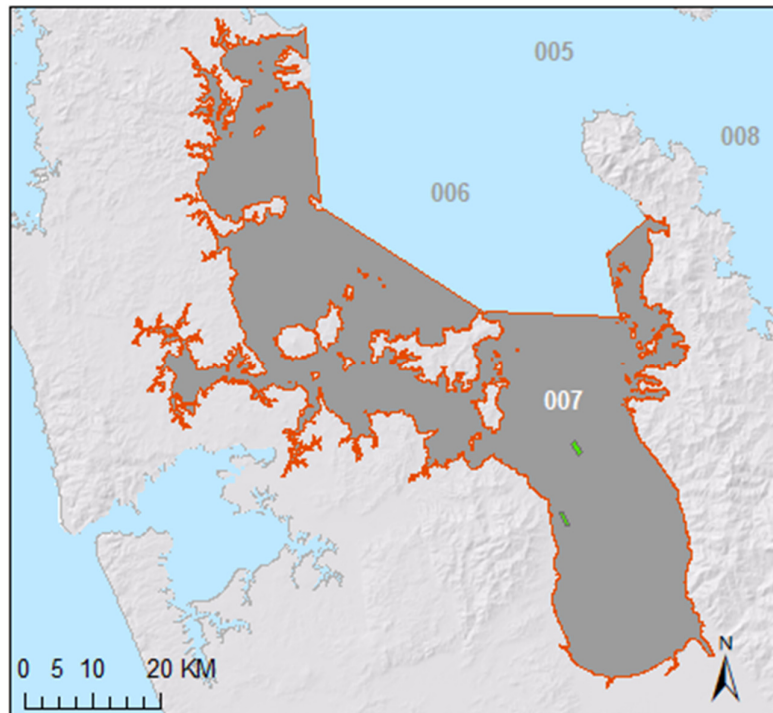
²⁵ Because rohe moana for iwi with an interest in the Firth of Thames have not been gazetted, customary authorisations for the Firth of Thames are issued under regulations 50 and 51 of the Amateur Regulations.

APPENDIX E: COMMERCIAL FISHING

Fisheries boundaries

1 A Fisheries Management Area (**FMA**) is one of the ten regions that the New Zealand 200nm Exclusive Economic Zone (**EEZ**) is divided into for fisheries management purposes. A Quota Management Area (**QMA**) is an area within which a designated fish stock is managed under the Quota Management System, and is generally based around FMAs. As noted, this application is in FMA1.

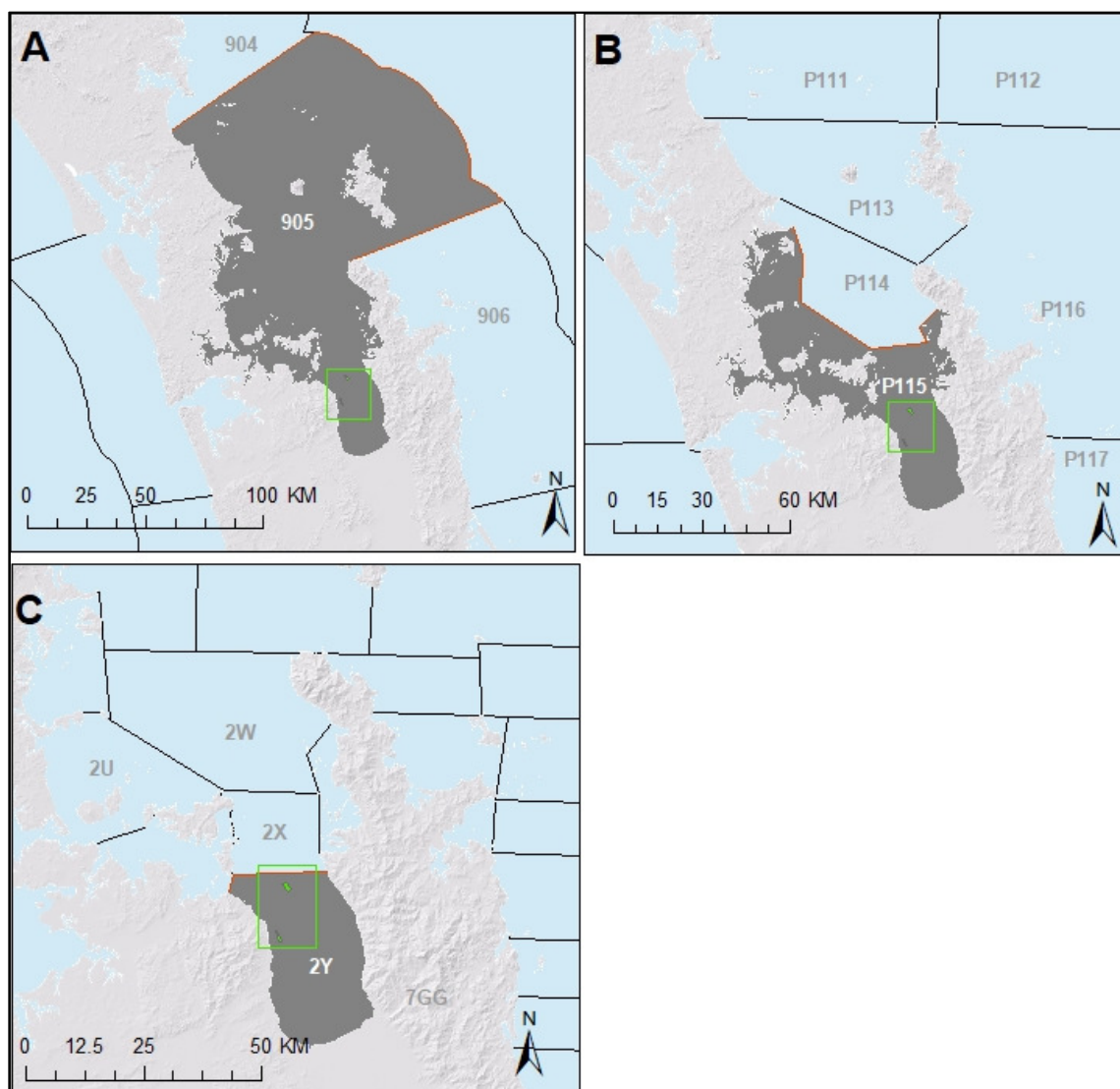
2 Fisheries reporting historically occurred by general statistical area. There are 120 of these areas in New Zealand's EEZ and this provides for more fine scale data to be collected than at an FMA scale. As noted, this application is in general statistical area 007 (Map 1).



Map 1: General statistical area SA007. The two green areas mark the location of coastal permit areas CST60303341 and CST60303342.¹

3 Rock lobster, paua, scallops and oysters are reported by species-specific statistical areas rather than by general statistical area. The areas of coastal permits CST60303341 and CST60303342 fall within rock lobster statistical area 905, paua statistical area P115 and scallop statistical area 2Y (Maps 2A – 2C). The areas of coastal permits CST60303341 and CST60303342 do not fall within an oyster statistical area.

¹ Hillshade imagery produced by Geographx. Sourced from www.koordinates.com under CC-By. <http://creativecommons.org/licenses/by/3.0/nz/>



Map 2: Species-specific statistical areas that encompass the areas of coastal permits CST60303341 and CST60303342 (located within green box). A – Rock lobster statistical area 905, B - Paua statistical area P115, C – Scallop Statistical Area 2Y.

Commercial fishing reporting and analysis

4 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 methods have reported 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 methods have reported to within 2 nm. Using this fine scale position data, Fisheries New Zealand has modelled and mapped fishing intensity for different segments of fishing, characterised by a type of fishing gear and the main species caught.² This detail can be commercially sensitive and cannot be publically released

5 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, Fisheries

² MPI developed the Catchmapper tool to model the estimated catch from landing data, and uses the best information available from fisheries statistics. This informs our assessment, and particularly, Table 3 of the decision.

New Zealand 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. Knowledge about species and information from commercial fishers and fishing companies, and Fishery Officers can also help to determine whether specific types of fishing are likely to occur in an area.

6 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/s of the coastal permit area.³ 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

7 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.

8 The amount of fishing was averaged over October fishing years 2007/08 to 2016/17. Ten 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.

³ The “exclusion zone” used for commercial fishing methods assessed is the coastal permit area, with the exception (where applicable) of dredging, trawling and seining. In sheltered waters, buffers of 50m, 250m and 500m respectively are applied. In open water buffers of 75m, 500m and 500m respectively are applied.