Fisheries New Zealand
Tini a Tangaroa

22 November 2019

AQUACULTURE DECISION REPORT — PAKIHI MARINE FARMS LIMITED, COASTAL PERMIT CST60328027, KAURI BAY, CLEVEDON

PURPOSE

1. This report sets out my aquaculture decision (as the relevant decision maker[1]) for an aquaculture decision request made under section 114(4)(c)(ii) of the Resource Management Act 1991 (RMA). 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 CST60328027 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 15;
- customary - for the reasons set out in this report and summarised in paragraph 15;
- commercial - for the reasons set out in this report and summarised in paragraph 399.

AQUACULTURE DECISION REQUEST DETAILS

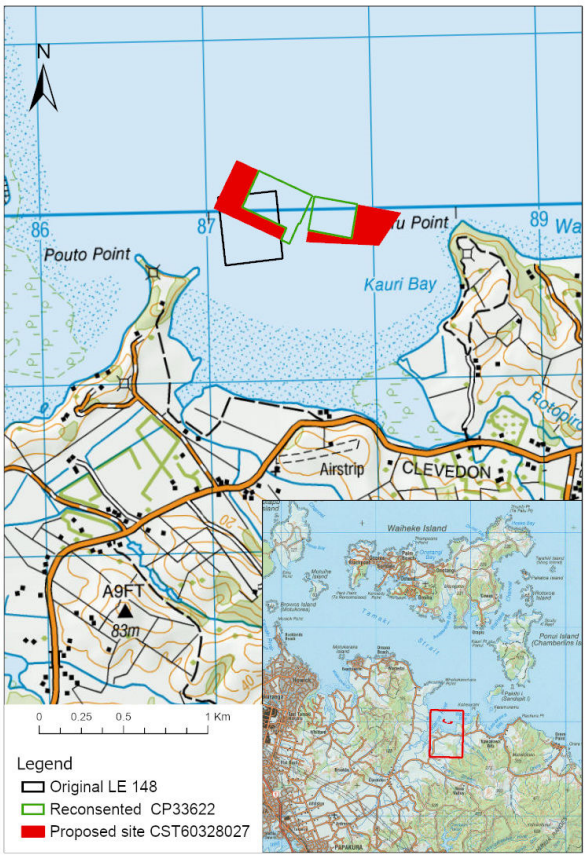
Regional Council:	Auckland Council (AC)
Date of Request:	24 July 2019
Coastal Permit Applicant:	Pakihi Marine Farms Limited
Location of marine farm site:	Kauri Bay, Clevedon
Size of farm:	13.1 hectares (ha) of new space as an extension to an existing 14 ha farm.
Species listed on consent:	Pacific oyster *Crassostrea gigas*
Farm structures:	Standard oyster racks.

Location and structures

3. Coastal permit CST60328027 applies to a 13.1 ha area extending an existing 14 ha marine farm Le 148 in Kauri Bay, Clevedon (Map 1). The original lease was re-consented by Auckland Council for the space actually occupied by the oyster farming structures at the time, with the transitional off-site farm provisions (Coastal Permit 33622).

[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. A copy of the site plan for CST60328027 is given in Appendix A. The applicant was not required to provide a structures plan at the time of consenting but an image showing the layout and density of the existing farm is shown in Appendix A for reference.



Map 1[2]: Location of the proposed site (area authorised by coastal permit CST60328027) at Kauri Bay, Clevedon.

Environment

5. An independent survey of the proposed site in June 2018 recorded a substrate dominated by mud and very fine sand. The substrate and biodiversity of the proposed site was very similar to that of the existing farm site. The effects of the existing farm activities was considered to be typical for oyster farming and no more than minor (Sim-Smith et al., 2018).

[2] Disclaimer: Maps 1 and 2 and all accompanying information accompanying (the "Maps") is 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). Data Attribution:
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Input from stakeholders

6. Fisheries New Zealand did not seek any information from the public on this application because it involves an extension to an existing marine farm that did not spread any further offshore and as preliminary assessment showed the site was shallow and muddy and unlikely to be high in fisheries values.

STATUTORY CONTEXT

7. 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).

8. 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 fishing[3]. 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.

9. 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).

10. 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:

- the location of the area that the coastal permit relates to in relation to areas in which fishing is carried out;
- 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;
- the degree to which the aquaculture activities in the area that the coastal permit relates to will lead to the exclusion of fishing;
- the extent to which fishing for a species in the area that the coastal permit relates to can be carried out in other areas;
- the extent to which the occupation of the coastal marine area authorised by the coastal permit will increase the cost of fishing; and
- 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.

11. 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)

[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.

Regulations 2013 (Amateur Regulations) and is instead authorised by a customary authorisation.

12. Appendix B gives further information on statutory context and customary fishing.

ASSESSMENT

13. 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.

14. This assessment relates to the 13.1 ha of new marine farming space, in two adjacent blocks, authorised by coastal permit CST60328027.

Recreational and customary fishing

15. I am satisfied the aquaculture activities that may operate within the proposed site will not have an undue adverse effect on recreational or customary fishing because:

- a relatively small amount of recreational and customary fishing is likely to occur at the proposed site;
- anchored rod/line fishing could still occur when the proposed structures are installed although oyster structures will occupy most of the space;
- there are other recreational and customary fishing areas available in the waters around Tamaki Strait and the Firth of Thames;
- occupation of the proposed site will result in a minimal, if any, increase in the cost of recreational or customary fishing;
- the likely effect of occupation of the proposed site on recreational and customary fishing is very small; and
- this small effect added to existing effects of approved aquaculture space will not cause the cumulative effect on recreational or customary fishing to become undue.

16. The above conclusions were reached following the more detailed assessment below.

Location of the coastal permit area relative to fishing areas

17. The location of the coastal permit area relative to fishing areas for recreational and customary sectors are considered separately below.

Recreational Fishing

18. I consider the area of the proposed site is located where recreational fishing may occur. The proposed site is not particularly important for recreational fishing but located nearby to where there is a high amount of fishing. Methods that could possibly be used include mobile and stationary rod/line fishing from a boat, and perhaps long lining or set netting. Species

which could be caught include snapper, kingfish, kahawai, trevally, gurnard, terakihi and John Dory. [4]

19. The Hauraki Gulf is an extremely popular area for recreational fishing because it offers a large stretch of coastline, sheltered bays and productive fishing close to Auckland. Information on recreational fishing in this area used in this assessment comes from:

- two national interview surveys in the 2011-12 and 2017-18 fishing years (Wynne-Jones et al., 2014, 2019).
- two aerial over-flight surveys coupled with boat ramp surveys covering Fisheries Management Area (FMA) FMA1 in 2005-06 and 2011-12 (Hartill et al., 2007; 2013).
- Amateur Charter Vessel (ACV) returns. Charter fishing must be reported to MPI and reports include location of fishing and catches; and
- anecdotal information on good fishing sites in online blogs.

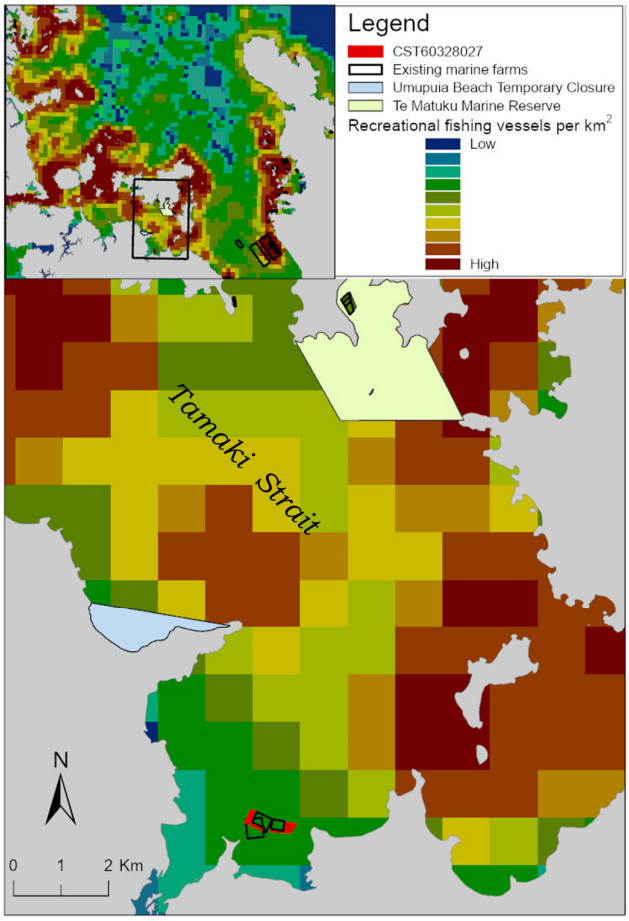
20. Rod and line fishing from boats and from shore targeting snapper is the most popular type of fishing in the inner Hauraki Gulf. Hand gathering of shellfish is also very popular. Averaged over the two national panel surveys, those fishing within the inner Hauraki Gulf caught mostly snapper (63% of total fish and shellfish numbers harvested), kahawai (8%), scallops (6%) and cockles (6%). Other popular species included tuatua, mussels, kina, oysters, pipi, jack mackerel, gurnard, yellow-eyed mullet, trevally, John Dory and kingfish.[5]

21. MPI aerial surveys of fishing boats show a large number of recreational fishing vessels fish in the waters of the inner Hauraki Gulf. As shown in Map 2, fishing intensity is particularly high in patches throughout Tamaki Strait. However, the proposed site is located within a shallow embayment that gets less boat fishing that the surrounding areas.

22. ACV fishing around the location of the proposed marine farm targets snapper by rod and line, usually at anchor but also whilst drifting. Snapper, kahawai, and kingfish are the main species caught. From October 2010 to August 2018, thirty four ACV reports were received within a 5 km radius of the proposed site compared with over 1500 reports within 20 km radius. So while the general locality is often used for recreational fishing the immediate vicinity of the proposed site is probably not.

[4] 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 assess the effect of the proposed aquaculture activities on recreational fishing based on qualitative information.

[5] The national survey is designed to give statistically robust estimates at the scale of FMAs and not smaller areas but here has been used to give a rough characterisation of recreational fishing patterns within a single survey strata covering the inner Hauraki Gulf.



Map 2. Intensity of recreational fishing activities from boats and closed areas for fishing. Averaged estimate of the number of fishing boats per km² from two 12-month recreational fishing surveys in 2005/06 and 2011/12 in the Hauraki Gulf (Hartill *et al*, 2007; 2013).

23. Table 1 summarises my assessment of the main methods used and species likely to be caught by recreational fishers at the proposed site based on recreational fishing surveys, the applicant's benthic survey (Sim-Smith et al., 2018), ACV data and anecdotal sources.

Table 1: Recreational fishing methods used and species likely to be caught near and around the area of coastal permit CST60328027, based on the available information.

	ACV data for 5 km radius	Recreational fishing surveys	Other information	My assessment
Methods used	Rod/line on anchor and rod/line drifting and Diving		The benthic habitats recorded in Sim-Smith *et al*. (2018) support line and net finfish fishing methods. Dredging and diving are unlikely to occur due to the absence of reef or shellfish beds in the mud substrate at the proposed site. A search of fishing websites[6] shows rod and line fishing from boats and the shore is the main method of catching finfish in the type of location and habitat of the proposed site. Set netting is possible in estuaries and river mouths like the proposed site.	Stationary and mobile rod/line, set netting and long lining methods may be used at the site.
Species caught	Caught – snapper, kahawai, kingfish, trevally, and others	Snapper (63% of total fish and shellfish numbers harvested), kahawai (8%), scallops (6%) and cockles (6%). Other popular species included tuatua, mussels, kina, oysters, pipi, jack mackerel, gurnard, yellow-eyed mullet, trevally, John Dory and kingfish	Fishing websites6 suggest snapper is the main species targeted and caught but also kingfish, kahawai, trevally, gurnard, terakihi and John Dory. Shellfish species taken in the general locality include scallops, crayfish, cockles, pipi and pāua. Very few large benthic epifauna and no fished invertebrates were present in ecological surveys of the proposed site except cockles. Cockle beds occur in other nearby areas and the benthic survey showed only small and low density cockles at proposed site.	Snapper are the main species caught in the areas of the proposed marine farm. Gurnard and kahawai may also commonly caught species. The absence of hard substrates beneath the proposed marine farm makes it unlikely rock lobster or other reef species are caught in the area of the proposed marine farm. This area of Tamaki Strait is not known to hold scallops and no suitable shellfish species were found at the site. Cockles were very small.

Customary Fishing

24. I consider the proposed marine farm is located where there may be customary fishing. The main methods likely to be used are stationary rod/line fishing from a boat or hand gathering of shellfish, with set netting, drift fishing and long lining also suitable methods. The main species caught would be snapper or cockles.

25. Up to thirteen iwi may have customary fisheries interests in the area of the proposed marine farm.[6] There are no mātaitai reserves or taiapure customary management areas in the vicinity of the proposed marine farm. There is a temporary closed area prohibiting the taking of cockles in the embayment to the northwest at Umupuia Beach (Map 2).

26. There is little quantitative data available on customary catch taken from the area of the proposed marine farm. 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 fishers are not required to report catch or fishing locations.

27. From April 1998 to March 2018, over 215 customary fishing authorisations were reported to Fisheries New Zealand for the bays along this stretch of coastline from Maraetai to Kawakawa Bay. These were mostly for cockles, mussels, scallops, pipi, kina, kahawai, snapper, and kingfish. It is not possible to say whether any of these involved customary fishing in the area of the proposed marine farm but it reasonable to assume they may have.

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

[6] 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 area of the proposed marine farm

	Source of information		
	Customary authorisations issued for Waiheke Island	**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. The area is shallow enough for hand gathering of shellfish	Stationary rod/line fishing, longlining and set netting are the most common methods for recreational fishers and may also be used by customary fishers. Hand gathering may occur nearby but is not likely at the proposed site because of proximity to increased sedimentation from existing oyster farming.
Species caught or targeted	Cockles, kahawai, snapper, and kingfish were all targeted along this stretch of coastline and could have been taken from the proposed site. Mussels, scallops, pipi, kina were also taken along this coast but are unlikely to be taken at the proposed site.	Kina, oysters are not typically found over the mud substrate at the proposed marine farm. The proposed marine farm is not located within a known scallop fishery area. Cockles are present in reasonable densities nearby but only low density and small cockles were found in the site benthic survey	Kahawai and snapper are likely to be the most commonly caught species at the proposed marine farm. The substrate and make the catch of kina and any other shellfish species unlikely except cockles. Only small cockles were observed in the benthic survey but this does not mean that cockle fishing hasn't occurred there.

Exclusion of fishing

29. I consider that any recreational or customary set netting, longlining, or rod/line drift fishing occurring in the area of the proposed site may be excluded because of the risk of entanglement with structures.

30. I consider that even stationary rod and line fishing is unlikely to occur around the proposed oyster farming structures as, unlike mussel long lines, oyster racks and lines are very dense and generally cover most of the consented area. Some hand gathering could continue to occur around the oyster structures but is considered unlikely given the muddy substrate at this site.

Availability of other areas

31. I consider alternative areas around Tamaki Strait and the Firth of Thames could absorb any recreational and customary fishing displaced from the proposed site because:

- the proposed site is only small and the amount of fishing that would occur there is likely small also;
- the same species seen over the mud substrate at the proposed site could be found in most areas of Tamaki Strait and the Firth of Thames, where this substrate is common. No information suggests the proposed site offers unique habitats or species mix; and
- the same methods used at the proposed site, if any, could be used elsewhere nearby; and sufficient alternative areas exist especially for stationary rod/line fishing.

32. The Matuku Marine Reserve, Umupuia Beach temporary cockle fishing prohibition, a small area at Eastern Beach in east Auckland where shellfish gathering is prohibited, and a set net prohibition in Tamaki River are all excluded from recreational fishing. All the rest of the waters around Tamaki Strait and the Firth of Thames are available for recreational and customary fishing. Many alternative areas are available for the type of fishing that could occur at the proposed site.

Increased cost of fishing

33. I consider that the aquaculture activities at the proposed site will increase the cost of recreational and customary fishing minimally, if at all.

34. I consider that any recreational or customary fishing excluded from the site could be carried out nearby with minimal additional cost, as a result of a marginal increase in fuel cost or change in method.

Likely effect on fishing

35. I consider the effect on recreational and customary fishing from the proposed aquaculture activities will be small because:

- not all recreational or customary fishing methods would be excluded from the proposed site;
- the area of the proposed site is small and is unlikely to be of particular importance to recreational or customary fishers; and

- alternative areas within Tamaki Strait and the Firth of Thames could absorb the recreational and customary fishing displaced from the proposed site.

Cumulative effects

36. I consider existing aquaculture in Tamaki Strait and the Firth of Thames may have affected recreational and customary fishing. However, I consider the cumulative effects on recreational and customary fishing, including the aquaculture activities at the proposed marine farm, will not be undue.

37. The farm that is to be extended by coastal permit CST60328027 is the only authorised aquaculture space along the southern coastline of Tamaki Strait. However, there is approximately 3,600 ha of marine farms in the Hauraki Gulf that make up about 28% of the 11,950 ha of aquaculture in FMA 1.

38. I consider the cumulative effects on recreational and customary fishing, including the aquaculture activities at the proposed site, will not be undue because:

- some recreational and customary fishing (eg, anchored rod/line fishing) can still occur within most marine farms, although not so much within oyster farms;

- not all existing farms are located in popular recreational and customary fishing areas; and

- the area of the proposed site is minimal with regard to all of the space available for recreational and customary fishing in the vicinity of Tamaki Strait and the Firth of Thames.

Commercial fishing

39. I am satisfied the aquaculture activities that may operate within the proposed site will not have an undue adverse effect on commercial fishing because:

- only a relatively small amount of commercial fishing is likely to occur in the area;

- only a relatively small amount of commercial fishing is likely to be excluded from the proposed site;

- there are alternate fishing grounds within the quota management areas for any fishing excluded from the proposed site;

- occupation of the proposed site 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 negligible and will not cause the cumulative effect on commercial fishing for any fish stock to become undue.

40. The above conclusions were reached following the more detailed assessment below.

Location of the coastal permit area relative to fishing areas

41. I consider the proposed site is located where there may be some commercial fishing. Set and ring net fishing are the main types of fishing occurring in the vicinity of the proposed site and mainly for kahawai and flatfish. Other species caught may include grey mullet, trevally, parore and snapper. Some snapper long line fishing also occurs at this locality.

42. Fisheries New Zealand used CatchMapper[7] to identify the fishing that has potentially occurred in the vicinity of the proposed site (Table 3).

43. In some fisheries the location data used in CatchMapper was not be the best available. Site specific habitat data provided in the consent application and more specific knowledge of those fisheries were used in the final assessment of whether the fishery could be affected as presented in Table 3.

44. Most of the potentially affected commercial fisheries in Table 3 are managed as stock units over FMA 1[8] which spans the northeast of the North Island including Bay of Plenty, Hauraki Gulf and the east coast of Northland. The proposed site is very small in relation to the area of the potentially affected fisheries.

45. The proposed site falls within the area of the inner Hauraki Gulf that is closed to most commercial fishing from the period 1 October to 31 March each year. But it may still be fished in the other half of the year. Exceptions to the prohibition on fishing in the inner Hauraki Gulf are lampara and seine netting for garfish and pilchards and set netting for grey mullet and flatfish which can still occur year round.

[7] CatchMapper is a spatial database of all commercial fishing events for the eleven years from October 2007 to September 2018 (see Appendix C for more explanation).
[8] FMAs can be seen here https://fs.fish.govt.nz/Page.aspx?pk=45&tk=389

Table 3: Fisheries identified as potentially occurring within the affected footprint of the proposed marine farm and estimated relative amount of the fishstock caught within the footprint[9,10].

All types of fishing detected within proposed farm footprint (and main fishstock)	% high spatial resolution	Average annual no. of overlapping fishing days	% of main fishstock caught by this method	Potentially affected	Likelihood of being affected
Flatfish(FLA1), set net	0%	255.4	less than 0.01%	Yes	Set and ring netting is known to occur in this area but use of the specific site is unknown
Kahawai (KAH1), set net	1%	164.2	less than 0.01%	Yes	Set and ring netting is known to occur in this area but use of the specific site is unknown
Other species (KAH1/EGR1, set net)	0%	112.3	less than 0.01%	Yes	Set and ring netting is known to occur in this area but use of the specific site is unknown
Grey Mullet (GMU1), ring net	0%	97.2	less than 0.01%	Yes	Set and ring netting is known to occur in this area but use of the specific site is unknown
Kahawai (KAH1), ring net	0%	92.9	less than 0.01%	Yes	Set and ring netting is known to occur in this area but use of the specific site is unknown
Grey Mullet (GMU1), set net	0%	87.1	less than 0.01%	Yes	Set and ring netting is known to occur in this area but use of the specific site is unknown
Parore (PAR1), set net	0%	51.2	less than 0.01%	Yes	Set and ring netting is known to occur in this area but use of the specific site is unknown
Snapper (SNA1), set net	0%	41.5	less than 0.01%	Yes	Set and ring netting is known to occur in this area but use of the specific site is unknown
Parore (PAR1), ring net	0%	27.0	less than 0.01%	Yes	Set and ring netting is known to occur in this area but use of the specific site is unknown
Snapper (SNA1), bottom long line	99%	13.3	less than 0.01%	Yes	Longlining occurs nearby and is possible at the proposed site
Trevally (TRE1), set net	0%	10.6	less than 0.01%	Yes	Set and ring netting is known to occur in this area but use of the specific site is unknown
Snapper (SNA1), ring net	0%	9.9	less than 0.01%	Yes	Set and ring netting is known to occur in this area but use of the specific site is unknown
Other species (TRE1/GMU1), ring net	0%	8.2	less than 0.01%	Yes	Set and ring netting is known to occur in this area but use of the specific site is unknown
Yellow-eyed mullet (YEM1), set net	0%	5.5	less than 0.01%	Yes	Set and ring netting is known to occur in this area but use of the specific site is unknown
Snapper (SNA1), hand line	0%	112.7	less than 0.01%	No	Hand lining on commercial boats for recreation
Other species, Pot (mainly rock lobster CRA1)	0%	53.0	less than 0.01%	No	Rock lobster potting will not occur in this habitat
Other species (mainly OSP1), hand gathering	0%	51.5	less than 0.01%	No	Pacific oysters cannot occur in this habitat
Pilchard (PIL1), purse seine	0%	7.6	less than 0.01%	No	Purse seining is unlikely to occur this close to shore

[9]Main fishstock refers to the main species caught in the fishing cluster but does not include all species taken by those fishing events. Also only fisheries with more than 5 annual fishing days are included.

[10]The amount of fishing overlapping with farm footprints is more precisely estimated where fishing location is reported by specific point coordinates rather than general statistical areas. The presence of a fishery within a footprint might be mistaken or the number of days overestimated when the fishing events were not mapped to precise locations. In these cases, other knowledge or available information may be used to confirm whether a fishery might potentially be affected.

Exclusion of fishing

46. I consider that some exclusion of set and ring net, and maybe longline fishing could occur at the proposed site but given that a marine farm already exists nearby the additional obstruction to commercial fishing is marginal.

47. The fisheries given in Table 3 were identified by overlaying exclusion areas for each fishing method with the mapped fishing events in CatchMapper. The exclusion areas, also termed footprints of the proposed site, include appropriate buffer zones around the farm boundaries of a size depending on the type of fishing method. Towed fishing methods have larger footprints, i.e. larger areas from which they would be excluded, than static fishing methods. Only new footprint area where fisheries have not already been excluded by past aquaculture decisions is included in this assessment.

48. Set and ring net and longline fishing, if any occurs, would all be excluded from within the immediate boundaries of the proposed site.

49. Potting, rock oyster gathering and purse seining are considered unlikely to occur at the proposed site even though they occur in the general locality. Purse seining needs space for vessel manoeuvring and the proposed site is tucked within an embayment. There was no rock or stone substrata detected during a benthic survey of the site (Sim-Smith et al., 2018), making diving and rock oyster gathering unlikely.

50. The proposed site is closed to commercial trawling and scallop dredging so these methods are already excluded.

Availability of other fishing areas

51. I consider alternative areas are available to absorb any commercial fishing displaced from the proposed site, if there was any, because:

- the annual catches of each species potentially caught at this site are a negligible percentage of the total catches for those species within the relevant stock Quota Management Area (QMA) (Table 3);
- the same methods as those possibly used at the proposed site could be used elsewhere in the relevant QMA for each fishstock; and
- there is nothing special or unique about the fisheries habitat in the proposed site.

Increased cost of fishing

52. I consider that the aquaculture activities at the proposed site are highly unlikely to increase any cost of commercial fishing. The proposed site is not unique or especially productive for fishing and the area excluded is very small compared to other fishing grounds available nearby.

Likely effect on fishing

53. Overall, I consider the aquaculture activities at the proposed site will have a negligible adverse effect on commercial fishing.

54. Fisheries New Zealand estimated on average about 50kg of fish per year were possibly caught from the footprint of the proposed farm over 11 recent years (from the fisheries assessed

as potentially affected in Table 3). This was mostly from set and ring net fishing. Even if all similar fishing events were displaced in future the effect on the fisheries would not be undue.

Cumulative effects

55. I consider existing aquaculture in Hauraki Gulf has affected commercial fishing. However, I consider the cumulative effects on commercial fishing, including the aquaculture activities at the proposed marine farm, will not be undue.

56. There is a14 ha marine farm already in the bay of the proposed site. There is about 3,600 ha of marine farms in the Hauraki Gulf that make up about 28% of the 11,950 ha of aquaculture in FMA 1.

57. I consider the cumulative effects on commercial fishing, including from the aquaculture activities at the proposed site, will not be undue because:

- for any fish stocks potentially affected by the proposed site, the cumulative effect of aquaculture to date has been assessed as less than 2% of catch on the worst affected fishery, and not undue; and

- the amount of additional catch that might have been displaced at the proposed site is considered to be very small.

AQUACULTURE DECISION

58. I am satisfied – based on all relevant information available to me – the activities proposed for the area authorised by coastal permit CST60328027 will not have an undue adverse effect on:

a) recreational fishing, and

b) customary fishing, and

c) commercial fishing.

59. Accordingly, my decision is a determination for coastal permit CST60328027 with regard to:

a) recreational fishing, and

b) customary fishing, and

c) commercial fishing.

60. The area of the determination on recreational, customary and commercial fishing is 13.1 ha within the following coordinates (NZTM2000):

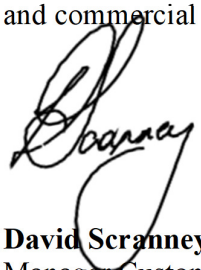
East Block

Point	**Easting**	**Northing**
1	1787610.53	5909879.44
2	1787868.36	5909826.24
3	1787906.29	5910022.62
4	1788167.87	5909968.65
5	1788032.25	5909781.23
6	1787596.38	5909810.88

West Block

Point	**Easting**	**Northing**
8	1787044.39	5910019.04
9	1787188.15	5910297.44
10	1787320.76	5910233.27
11	1787216.80	5910021.65
12	1787479.14	5909894.26
13	1787446.51	5909826.25

61. The reasons for my decision are 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 25 November 2019

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APPENDIX A: SITE AND STRUCTURES MAP

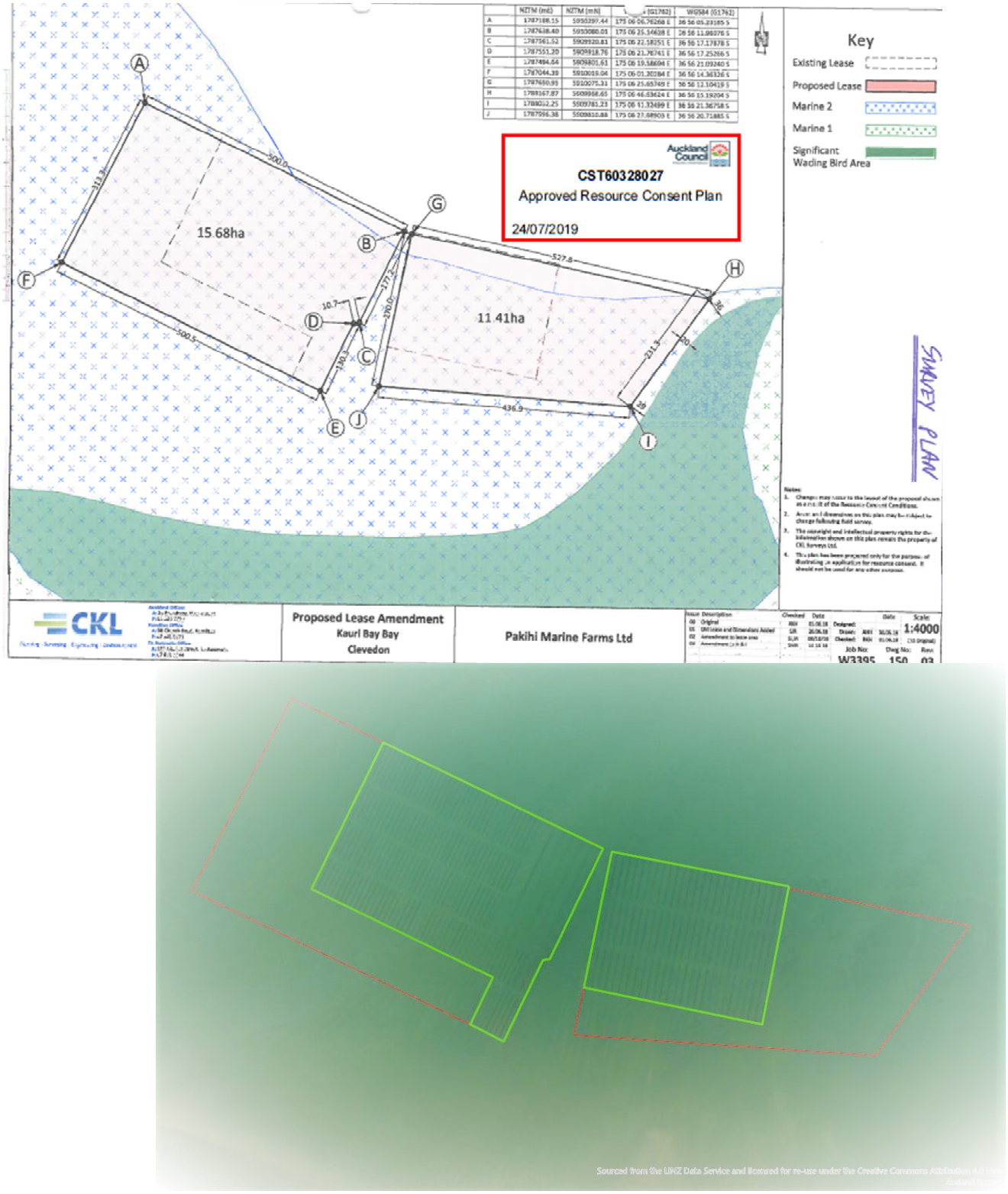

Figure 1. Copies of site map (taken from Auckland Council CST60328027 decision paper) and image showing existing structures layout and location of new space (Contains data sourced from the LINZ Data Service licensed for reuse under CC BY 4.0).

APPENDIX B: ADDITONAL STATUTORY CONTEXT

1 Section 186E(3) of the Fisheries Act [11] 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 CST60328027.

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 fisheries are as I have described in the assessment above in "*Location of the coastal areas relative to fishing area*."

[11] 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 1999* (**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 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.

APPENDIX C: Commercial fishing reporting and analysis

1 Historically, fishing catches were reporting by a set of statistical areas providing only 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 clusters of fishing, characterised by a type of fishing gear and the main species caught.[12] This detail can be commercially sensitive and may not be publically released

2 Until recently, vessels less than 6 m long still reported by statistical areas and so the precise location of their fishing is unknown. However, based on information from Fisheries Officers and Maritime New Zealand, Fisheries 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 Fisheries Officers can also help to determine whether specific types of fishing are likely to occur in an area.

3 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.

4 The amount of all mapped fishing events that overlap with a proposed farm footprint is calculated. Trip landings are apportioned to the overlapping part of each event. These are summed and annually averaged for each fishery cluster and fishstock to estimate the amount of fish likely to have been landed within the footprint.

5 The amount of fishing was averaged over October fishing years 2007/08 to 2017/18. Eleven 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.

[12] MPI developed the CatchMapper tool to spatially model the estimated catch from landing data. This informs our assessment, and particularly, Table 3. For more information see Osborne, TA 2018 Forecasting quantity of displaced fishing Part 2: CatchMapper - Mapping EEZ catch and effort. New Zealand Aquatic Environment and Biodiversity Report No. 200. Downloaded on 4 March 2019 from https://fs.fish.govt.nz/Page.aspx?pk=113&dk=24611