



11 March 2020

AQUACULTURE DECISION REPORT — SIX COASTAL PERMITS IN ADMIRALTY BAY, PELORUS SOUND

PURPOSE

1. This report sets out my aquaculture decisions (as the relevant decision maker¹) for six 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 Admiralty Bay for coastal permits U190134, U190639, U190640, U190641, U190548, U190771 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 19;
- customary - for the reasons set out in this report and summarised in paragraph 19;
- commercial - for the reasons set out in this report and summarised in paragraph 43.

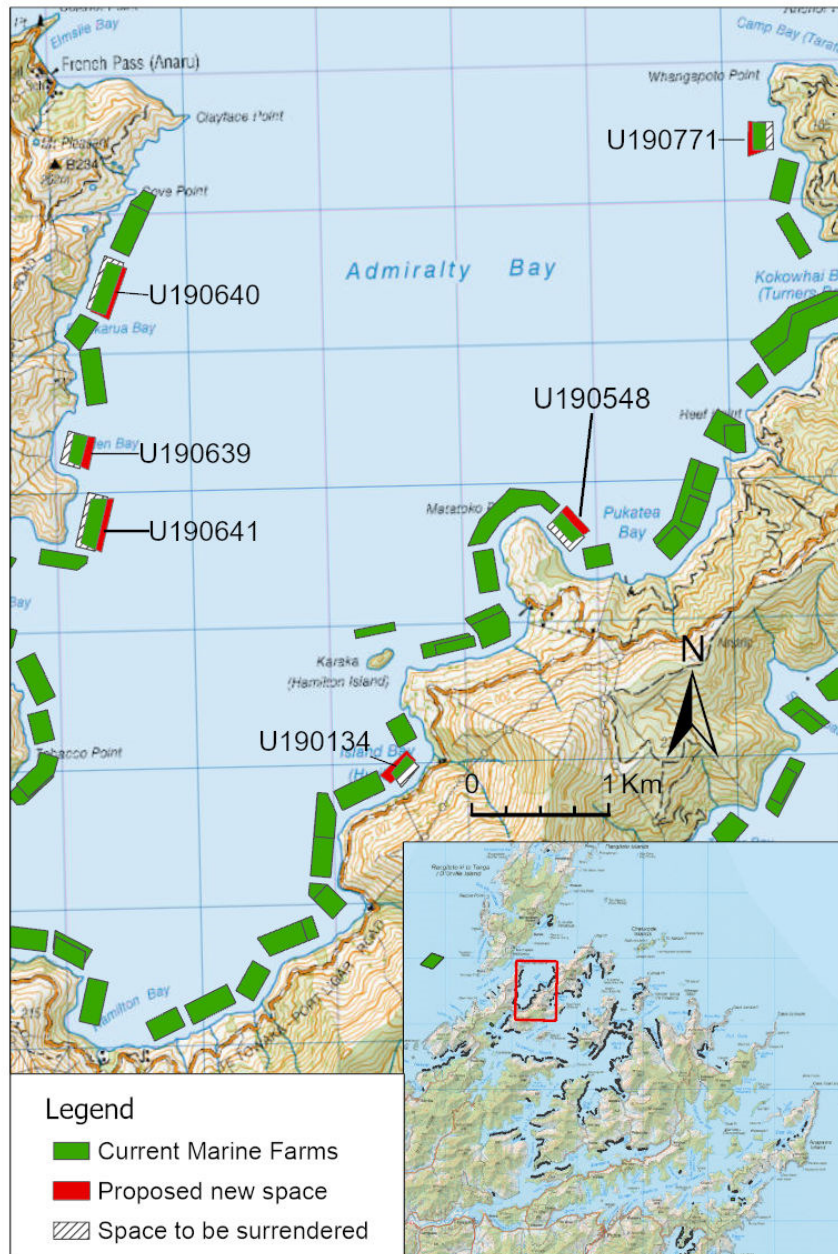
¹ Acting under authority delegated to me by the Director-General of the Ministry for Primary Industries (MPI) in accordance with section 41 of the *State Sector Act 1988*.

AQUACULTURE DECISION REQUEST DETAILS

Regional Council:	Marlborough District Council (MDC)					
Location of marine farm site:	Forsyth Bay, Pelorus Sound					
Farm structures:	Standard marine farm longlines and anchors.					
Coastal Permit	U190134	U190639	U190641	U190640	U190771	U190548
Date of Request:	6/12/2019	6/12/2019	6/12/2019	17/12/2019	17/12/2019	6/12/2019
Coastal Permit Applicant:	Jeffery Val Meachen	KPF Investments Limited	KPF Investments Limited	KPF Investments Limited	KPF Investments Limited	KPF Investments Limited
Size of consent:	2.6 ha	3.6 ha	6.0	6.0 ha	3.0 ha	3.7 ha
Size of new farm space	1.45	1.46	1.84	1.62	1.10	1.59 ha
Species listed on consent:	Greenshell mussel <i>Perna canaliculus</i>	Greenshell mussel <i>Perna canaliculus</i> , Scallop <i>Pecten novaezelandiae</i> , Dredge oyster <i>Ostrea chilensis</i> , Pacific oyster <i>Crassostrea gigas</i> .	Greenshell mussel <i>Perna canaliculus</i> , Scallop <i>Pecten novaezelandiae</i> , Dredge oyster <i>Ostrea chilensis</i> , Pacific oyster <i>Crassostrea gigas</i> .	Greenshell mussel <i>Perna canaliculus</i> , Scallop <i>Pecten novaezelandiae</i> , Dredge oyster <i>Ostrea chilensis</i> , Pacific oyster <i>Crassostrea gigas</i> .	Greenshell mussel <i>Perna canaliculus</i> , Scallop <i>Pecten novaezelandiae</i> , Dredge oyster <i>Ostrea chilensis</i> , Pacific oyster <i>Crassostrea gigas</i> . Blue mussel <i>Mytilus galloprovincialis</i> , Horse mussel <i>Atrina zelandica</i> , Kina <i>Evechinus chloroticus</i> , Pāua <i>Haliotis iris</i> , <i>H. australis</i> , <i>H. virginea</i> ; Cockle <i>Austrovenus stutchburyi</i> , Pipi <i>Paphies australis</i> , Seaweed <i>Macrocystis pyrifera</i> .	Greenshell mussel <i>Perna canaliculus</i> , Scallop <i>Pecten novaezelandiae</i> , Pacific oyster <i>Crassostrea gigas</i> .

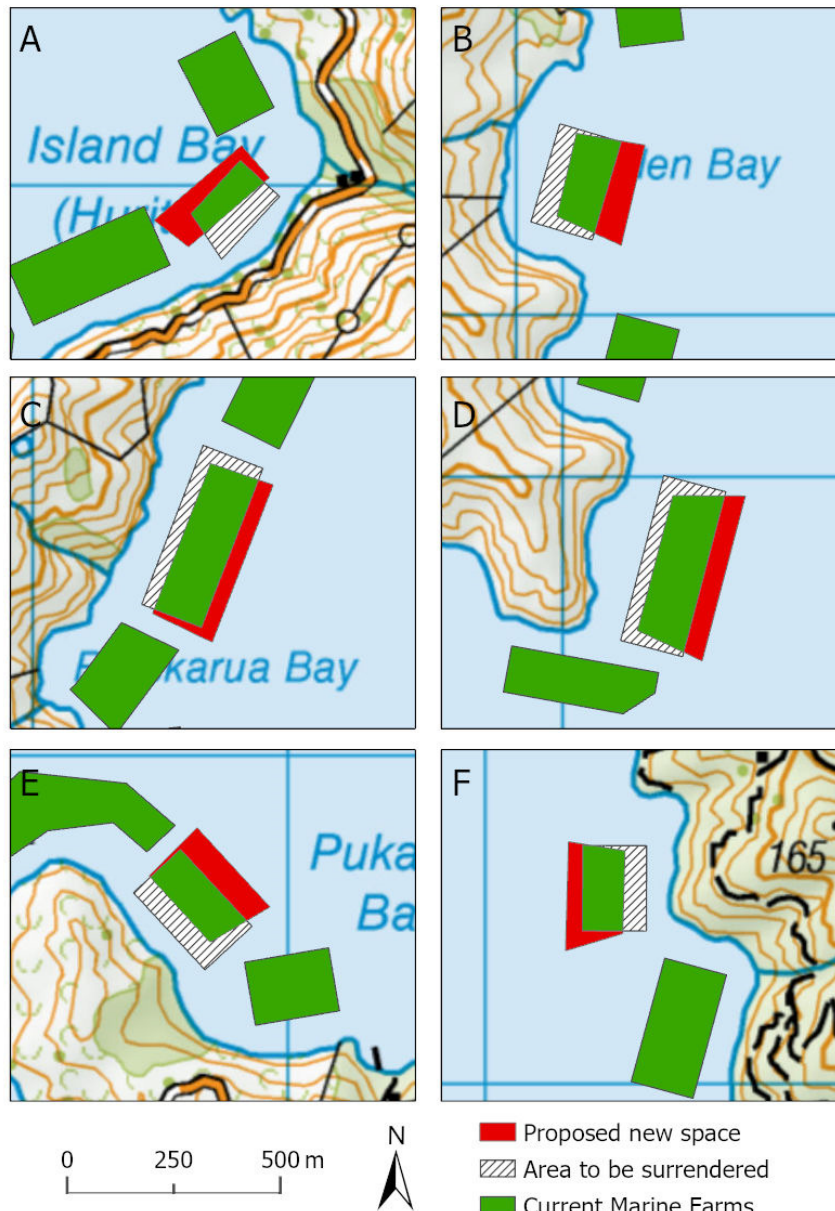
Location and structures

3. Coastal permits U190134, U190639, U190640, U190641, U190548, U190771 (**proposed sites**) are all located within Admiralty Bay and all involve the renewal and small repositioning of existing marine farms (Li273, Li311, Li271, Li263, Li285, and Li328, respectively) (Maps 1 and 2). In each case repositioning the site brings it more into line with the location of the existing structures and, where necessary, avoids benthic features not suitable for marine farming as found by ecological survey (see next section). In all cases an equivalent amount of area is to be surrendered and the size of the farms remains the same. Site and structures maps can be found in Appendix A.



Map 1²: Location of the proposed sites in Admiralty Bay, Pelorus Sound.

² Disclaimer: Maps 1 to 3 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



Map 2: Proposed sites in Admiralty Bay showing new farm space and space to be surrendered.
A U190134, B. U190639, C. U190640, D. U190641, E. U190548, F. U190771

Environment

4. The proposed new farm space at U190134 was located over a relatively featureless gently sloping benthos dominated by silt and clay substratum. Rocky substrata in the form of boulders and cobbles were observed at the eastern and southern inshore areas of the original consent and the new consent has been shifted offshore to avoid these areas and to cover the area occupied by the existing structures. Occasional scallop and horse mussels were observed

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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during the benthic survey but not considered to be abundant (Davidson et al., 2018b). No species, habitats or communities regarded as ecologically were observed during the benthic survey.

5. The proposed new farm space at consent U190639 is located seaward in deeper water than the existing consent it replaces and covers the area occupied by existing structures. A benthic survey of the existing consent area detected deep featureless benthos dominated by silt or fine sand substratum, low abundance of scallops and no hard substrata (Davidson et al., 2019a). . The survey did not cover the proposed new farm space but it is likely to be similar.

6. The proposed new farm space at consent U190640 is located seaward in deeper water than the existing consent it replaces and covers the area occupied by existing structures. A benthic survey of the existing consent area detected deep featureless benthos dominated by silt or fine sand substratum (Davidson et al., 2019b). . Rocky substrata was observed at the inshore and north ends of the existing consent and a patch of rock outcrop occurs beneath the warps of existing structures. Blue cod and butterfly perch and kina were observed on the rocky outcrops.

7. The proposed new farm space at consent U190641 is located seaward in deeper water than the existing consent it replaces and covers the area occupied by existing structures. A benthic survey of the existing consent area detected deep featureless benthos dominated by silt or fine sand substratum (Davidson et al., 2019c). . Rocky substrata was observed at the inshore and south end of the existing consent and a patch of rock outcrop occurs beneath the warps of existing structures. Blue cod, leatherjacket, butterfly perch and terakihi were observed on the rocky outcrops within the existing consent but outside the new consent area.

8. The proposed new farm space at consent U190548 is located seaward in deeper water than the existing consent it replaces and covers the area occupied by existing structures. A benthic survey of the existing consent area detected deep featureless benthos dominated by silt or fine sand substratum (Davidson et al., 2018a). . Rocky substrata was observed in the inshore and southeast areas of the existing consent beneath the warps of existing structures. Blue cod, tarakihi, barracuta, snapper, and spikey dog fish and a small number of scallops were observed within the existing consent area.

9. The proposed new farm space at consent U190771 is located seaward in deeper water than the existing consent it replaces and covers the area occupied by existing structures. A benthic survey of the existing consent area detected deep featureless benthos dominated by silt or fine sand substratum (Davidson et al., 2019d). . Rocky substrata was observed in the inshore areas of the existing consent. No structures had been placed over the hard substrate areas. Kina and a small number of scallops were observed within the existing consent area.

Input from stakeholders

10. Fisheries New Zealand did not seek input from stakeholders on these 6 applications as they all involve only a minor change in position of the existing farms and all are within an area dominated by marine farming.

STATUTORY CONTEXT

11. 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).

12. 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.

13. 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).

14. 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.

15. 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.

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

ASSESSMENT

17. 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.

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.

18. This assessment relates to the 9.06 ha of new consented space authorised by the coastal permits listed herein as if they had not been previously occupied.

Recreational and customary fishing

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

- Only a small amount of recreational and customary fishing is likely to occur at the proposed sites;
- anchored rod/line fishing could still occur when the proposed structures are installed;
- there are other recreational and customary fishing areas available nearby;
- occupation of the proposed sites will result in a minimal, if any, increase in the cost of recreational or customary fishing;
- the likely effect of occupation of the proposed sites on recreational and customary fishing is negligible; 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.

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

Location of the coastal permit area relative to fishing areas

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

Recreational fishing

22. I consider the area of the proposed sites are located where some recreational fishing is likely to occur. The locality of the proposed sites is not particularly important for recreational fishing, but some does occur around this area (Map 3). Methods used include mobile and stationary rod/line fishing from a boat. Species which could be caught include Blue cod, tarakihi, gurnard, snapper and kahawai. Within the general locality, diving for crayfish is popular but unlikely at the proposed site. Scallop dredging may occur here.⁴

23. Information on recreational fishing 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);
- three aerial over-flight surveys coupled with boat ramp surveys covering Fisheries Management Area (FMA) FMA7, a 12 month period in 2005-06 (Davey et al., 2008), for two days in 2014-15 (Hartill, et al., 2015) and again for 12 months in 2015-16 (Hartill, et al., 2017); and

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.

- Amateur Charter Vessel (ACV) returns. Charter fishing must be reported to MPI and reports include location of fishing and catches.

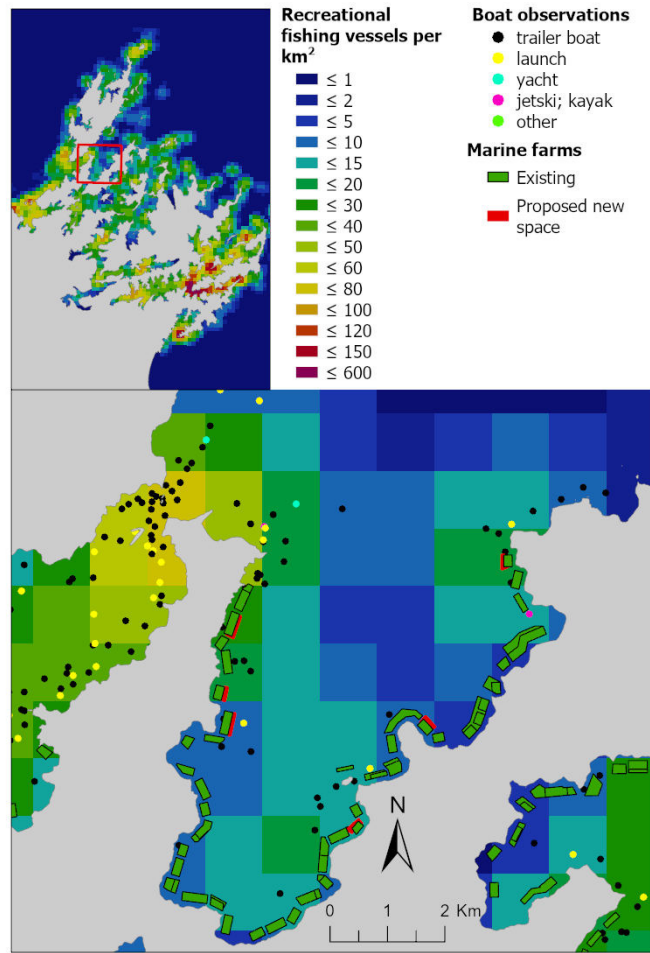
24. Rod and line fishing from boats targeting blue cod, gurnard or snapper is the most popular type of fishing in Pelorus Sound (Davey *et al.*, 2008, Wynne-Jones *et al.*, 2014, 2019). Hand gathering or dredging of shellfish is also popular. Averaged over the two national panel surveys, those fishing within Pelorus Sound were mostly fishing from trailer boats (65%), or launches (16%) or from land (10%). Most fishing was done using rod or line (91%) and nets (6%), dredge (6%) and diving (4%) were also popular. Species caught included blue cod (46% of fishing trips), snapper (15%), kahawai (14%), gurnard (12%) and scallops (7%). Other popular species included tarakihi, flatfish and barracouta.⁵

25. Fisheries NZ aerial surveys of fishing boats show a large number of recreational fishing vessels fish in Kenepuru Sound, Queen Charlotte Sound, Croisilles Harbour and some areas in the outer Pelorus Sound. As shown in Map 3, fishing intensity is reasonably low in Admiralty Bay where the proposed sites are located but relatively intense recreational boat fishing occurs nearby around French Pass.

26. ACV fishing must be reported to MPI and include location of fishing and amount of catch. ACV fishing around the location of the proposed sites targets blue cod by rod and line, usually at anchor but also while drifting. In the 9 years from October 2010 to November 2019, 10 ACV fishing events were received from Admiralty Bay (0.3 events per km²) compared with about 2000 events within a 20 km radius (2 events per km²). On this basis Admiralty Bay is relatively unimportant for amateur charter fishing.

27. Table 1 summarises my assessment of the main methods used and species likely to be caught by recreational fishers at the proposed sites based on recreational fishing surveys, the applicants' benthic surveys, ACV data and anecdotal sources.

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 Pelorus Sound.



Map 2. Estimated annual intensity of recreational fishing from boats in 2015-16 and actual boat observations from all aerial surveys in the Marlborough Sounds (Davey et al., 2008, Hartill *et al.*, 2017).

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

	ACV data for Admiralty Bay	Recreational fishing surveys Marlborough Sounds	Other information	My assessment
Methods used	<p>Rod/line on anchor and rod/line drifting.</p> <p>Very low frequency of use.</p>	<p>In the wider Pelorus Sound, fishing methods include rod/line (91% of trips), net (6%), dredge (6%), diving (4%) (Wynne-Jones et al., 2014, 2019)</p> <p>Marlborough Sounds is a high use recreational fishing area but within that Admiralty Bay is relatively low use (Hartill <i>et al.</i>, 2017).</p>	<p>The habitat types recorded in the applicants' benthic surveys support line, pot, dredge and net finfish fishing methods.</p> <p>Diving may occur in the general locality and particularly inshore of the proposed sites but the sites themselves are probably too deep.</p> <p>Set netting is possible but usually occurs in shallower bays and estuaries.</p>	<p>Stationary and mobile rod/line, and possibly long lining methods may be used at the proposed sites.</p> <p>Set netting is possible but not likely.</p> <p>Beach seining is not a suitable method at the proposed site.</p> <p>It is not known if scallops are likely to be dredged or dived for within the proposed site but it is considered unlikely.</p> <p>Diving and lining could continue once the sites are occupied by farm structures.</p>
Species caught	<p>Targeted –, blue cod Caught – blue cod, snapper, moki.</p>	<p>In the whole Pelorus Sound – blue cod (46% of fishing trips), gurnard (12%), snapper (16%), kahawai (14%) and scallops (7%) are the main species caught. (Wynne-Jones et al., 2019)</p> <p>In the outer sounds around Admiralty Bay – blue cod, crayfish, scallops, hapuku, moki, tarakihi, gurnard and kahawai were all caught (Davey et al., 2008)</p>	<p>Scallops, kina, blue cod and other recreational fish species were observed in ecological surveys of the existing farms, but not specifically within the proposed extensions. These species were generally in low abundance and only in areas not occupied by growing structures.</p>	<p>The absence of hard substrates beneath the proposed new farm space makes it unlikely rock lobster, or other reef species would be caught there. Blue cod will be present in some areas of the existing farms where rocky substrate or live mussel reefs occur.</p> <p>Scallops are known to occur in low abundance in the general vicinity but their abundance is unknown within the proposed sites.</p> <p>Blue cod, tarakihi, gurnard, snapper and kahawai are likely to be the main species available for fishing at these sites.</p>

Customary Fishing

28. I consider the proposed sites may be located where there is customary fishing but it is unlikely to be particularly important for this activity. The main method likely to be used, if any, is stationary rod/line fishing from a boat with drift fishing and long lining also suitable methods. The main species caught would be blue cod, tarakihi, snapper and kahawai.

29. Up to eight iwi may have customary fisheries interests in the area of the proposed sites.⁶ There are no mātaihai reserves, temporary rahui or taiapure customary management areas in the vicinity of the proposed sites.

30. There is little quantitative data available on customary catch taken from the area of the proposed sites. Fishing locations for customary authorisations are usually only reported by FMA or Quota Management Area (QMA), although more specific sites are sometimes identified. Customary fishers are not required to report catch or fishing locations.

31. From Jan 1998 to November 2019, 42 customary fishing authorisations were reported to Fisheries New Zealand for unspecified areas of Pelorus and Marlborough Sounds or French Pass (areas that could overlap with the proposed sites). These were mostly for kina, blue cod, butterfish, crayfish, and moki. It is not possible to say whether any of these authorisations involved customary fishing in the area of the proposed sites but it's reasonable to assume they probably haven't.

32. I have assessed likely customary fishing in the proposed sites in Table 2 below, using the available information.

⁶ Ngai Tahu, Ngati Apa, Ngati Koata, Ngati Kuia, Ngati Rarua, Ngati Toa, Rangitane, Te Ati Awa

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 Pelorus Sound	Other information	My assessment
Methods used	No customary authorisations specifically give Admiralty Bay as the location of fishing and it is not an important area for recreational fishing probably in part due to difficult access.	Recreational fishers commonly use rod/line methods, and dredging so customary fishers may also use these methods. The sites are possibly too deep for diving and set netting. Longlines may be used.	Rod/line fishing and dredging are the most common methods for recreational fishers and may also be used by customary fishers. Set netting is possible but not likely. Beach seining is not a suitable method at the proposed site. It is not known if scallops are likely to be dredged or dived for within the proposed site
Species caught or targeted	Kina, blue cod, butterfish, crayfish, and moki are most common species taken with customary authorisations that might include Admiralty Bay. Flatfish, hapuku, scallops, mussels, snapper and pāua have also been sought.	Butterfish, moki, pāua and crayfish are not typically found over the soft silty substrate at the proposed sites. Scallops, kina, blue cod and other customary fish species were observed in ecological surveys of the existing farms, but not specifically within the proposed extensions. These species were generally in low abundance and only in areas not occupied by growing structures.	The absence of hard substrates beneath the proposed sites makes it unlikely rock lobster, or other reef species would be caught there. Blue cod will be present immediately inshore of the farm and in some areas of the farm where rocky or live mussel reefs occur. Scallops are known to occur in the vicinity but their abundance is probably low within the proposed sites. Blue cod, tarakihi, gurnard, snapper and kahawai are likely to be the main species available for fishing at this site.

Exclusion of fishing

33. The proposed marine farming structures are standard mussel longlines about 20 m apart. 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 from the proposed site because of the risk of entanglement.⁷

34. 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. Some diving may still occur but is unlikely given the depth of these sites.

Availability of other areas

35. I consider alternative areas around Pelorus Sound could absorb any recreational and customary fishing displaced from the proposed sites because:

- the proposed sites are only small and the amount of fishing that would occur there is likely to be small;
- the same species seen over the mud substrate at the proposed sites could be found in most areas of Pelorus Sound, where this substrate is common. No information suggests the proposed sites offer unique habitats or species mix; and
- the same methods used at the proposed sites could be used elsewhere nearby; sufficient alternative areas exist, especially for stationary rod/line fishing.

36. Apart from the closed area for finfish fishing around Maud Island and longline and set net restrictions in certain areas under the Amateur Regulations, all the waters of Pelorus Sound are available for recreational and customary fishing. Many alternative areas are available for the type of fishing that could occur at the proposed sites.

Increased cost of fishing

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

38. I consider that any recreational or customary fishing excluded from the sites 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

39. 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 sites;
- the area of the proposed sites are small and unlikely to be of particular importance to recreational or customary fishers; and

⁷ 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. Drift fishing is also difficult between closely set mussel lines because of risk of entanglement.

- alternative areas around Pelorus Sound could absorb the recreational and customary fishing displaced from the proposed sites.

Cumulative effects

40. I consider existing aquaculture in the Marlborough Sounds 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 sites, will not be undue.

41. There is about 214 ha of authorised aquaculture space in Admiralty Bay where the proposed sites are located. There is also about 3,300 ha of marine farms in the wider Marlborough Sounds.

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

- some recreational and customary fishing (eg, anchored rod/line fishing) can still occur within marine farms;
- not all existing farms are located in popular recreational and customary fishing areas; and
- the area of the proposed sites is minimal with regard to all of the space available for recreational and customary fishing in Pelorus Sound and the wider Marlborough Sounds.

Commercial fishing

43. I am satisfied the aquaculture activities that may operate within the proposed sites 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, if any, is likely to be excluded from the proposed sites;
- there are alternate fishing grounds within the quota management areas for any fishing excluded from the proposed sites;
- occupation of the proposed sites will result in a negligible, 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.

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

Location of the coastal permit area relative to fishing areas

45. I consider the proposed sites are located where there is likely to be minimal commercial fishing.

46. Fisheries New Zealand used CatchMapper⁸ to identify the fishing that potentially occurs in the vicinity of the proposed sites. The proposed sites are surrounded by other marine farms and the likelihood that any commercial fishing occurs that close to existing structures is very small, but Table 3 gives the fishing that may occur within the vicinity.

47. Commercial trawl, longline, and set net fishing all occur in Admiralty Bay. The main species caught are gurnard, flatfish, red cod, hapuku, snapper and barracouta. Scallop dredging has occurred in the past but mostly north of French Pass.

48. A few areas of rock or stone substrata were detected within the proposed sites during benthic surveys and required, by condition resource consent, to be kept free of crop growing structures (but not anchor warps). Nevertheless, no rock lobster or butterfish habitat or dense horse mussel or kina beds were observed therefore fisheries for these species are considered unlikely at this site. The site is not suitable for beach seining because of the existing structures shoreward of the new farm space.

49. Most of the potentially affected commercial fisheries in Table 3 are managed as stock units over Fisheries Management Area 7 (FMA7)⁹ which spans the west coast and top of the South Island from Awarua Point in Fiordland to the Clarence River in Marlborough. The proposed sites are very small in relation to the area of the potentially affected fisheries.

⁸ 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).

⁹ 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.^{10,11}

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 landings potentially affected	Commercial fishing potentially affected	Likelihood of being affected
Blue cod (BCO7), cod pot	0%	158.4	less than 0.01%	Yes	Might occur here and might be slightly displaced
Scallop (SCA7), dredge	0%	143.0	less than 0.01%	Yes	Probably doesn't occur here but could
Flatfish(FLA7), set net	0%	104.5	less than 0.01%	Yes	Probably doesn't occur here but could
Hapuku bass (HPB7), longline	0%	87.2	less than 0.01%	Yes	Might occur here and might be slightly displaced
School shark(SCH7), longline	0%	65.3	less than 0.01%	Yes	Might occur here and might be slightly displaced
Sea Cucumber, Diving	0%	37.1	less than 0.01%	Yes	Probably doesn't occur here but could
Other species (mainly ELE7, SPO7), set net	29%	26.2	less than 0.01%	Yes	Might occur here and might be slightly displaced
Inshore Mixed species (mainly FLA7, RCO7), trawl	100%	11.8	less than 0.01%	Yes	Trawling happens nearby and might be slightly displaced
Other species longline (mainly SCH7)	0%	4.4	less than 0.01%	Yes	Might occur here and might be slightly displaced
Gurnard (GUR7), trawl	100%	4.0	less than 0.01%	Yes	Trawling happens nearby and might be slightly displaced
Flatfish (FLA7), trawl	100%	3.3	less than 0.01%	Yes	Trawling happens nearby and might be slightly displaced
Kahawai (KAH3), set net	0%	2.5	less than 0.01%	Yes	Might occur here and might be slightly displaced
School shark set net (SCH7)	74%	1.5	less than 0.01%	Yes	Might occur here and might be slightly displaced
Red cod, Trawl (RCO7)	100%	1.5	less than 0.01%	Yes	Trawling happens nearby and might be slightly displaced
Rock lobster, Rock Lobster Pot (CRA5)	0%	706.4	less than 0.01%	No	Rock lobster potting will not occur in this habitat
Kina (SUR7A), diving	0%	179.9	less than 0.01%	No	Kina diving will not occur in this habitat
Blue cod (BCO7), hand line	0%	75.7	less than 0.01%	No	Hand lining on commercial boats for recreation
Butterfish (BUT7), set net	1%	75.1	less than 0.01%	No	Butterfish will not occur in this habitat
Other species (mainly HOR7), hand gathering	0%	16.1	less than 0.01%	No	Diving will not occur in this habitat
Other species (mainly BCO7), hand line	0%	10.4	less than 0.01%	No	Hand lining on commercial boats for recreation
Other species (mainly GAR7), beach seine	0%	6.3	less than 0.01%	No	Seining will not occur at these sites due to the existing structures
Oyster (OYS7), dredge	0%	1.8	less than 0.01%	No	This fishery is known to not occur here

¹⁰Main fishstock refers to the main species caught in the fishing cluster but does not include all species taken by those fishing events.

¹¹ 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

50. I consider the amount of fishing that will be excluded is likely to be minimal. Trawl, set net, and longline fishing may occur close by but given that a marine farms already exist immediately adjacent to, and surrounding the site, the additional obstruction to commercial fishing is likely to be negligible.

51. 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 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 existing authorised aquaculture is included in this assessment.

52. Set net, and longline fishing, if any occurs, would all be excluded from within the immediate boundaries of the proposed sites. Trawling is likely to be excluded from an area up to 250 m from the proposed sites but as stated earlier is unlikely to occur that close given the proximity of other farms.

Availability of other fishing areas

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

- the annual catches of each species potentially caught at these sites are a negligible percentage of the total catches for those species within the relevant Quota Management Area (QMA) (Table 3);
- the same methods as those possibly used at the proposed sites 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 sites.

Increased cost of fishing

54. I consider that the aquaculture activities at the proposed sites are highly unlikely to increase any cost of commercial fishing. The proposed sites are 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

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

56. Fisheries New Zealand estimated that on average less than 70 kg of fish per year were possibly caught from the footprints of the proposed sites over the 11 most recent years (from the fisheries assessed as potentially affected in Table 3).

Cumulative effects

57. I consider existing aquaculture in the Marlborough Sounds has affected commercial fishing. However, I consider the cumulative effects on commercial fishing, including aquaculture activities at the proposed sites, will not be undue.

58. There is about 214 ha of authorised aquaculture space in Admiralty Bay where the proposed sites are located. There is also about 3,300 ha of marine farms in the wider Marlborough Sounds that make up about 23% of the 14,700 ha of aquaculture in FMA 7.

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

- for any fish stocks potentially affected by the proposed sites, the cumulative effect has previously been assessed as a maximum of approximately 3.3% effect of marine farming on any fishery, and not undue; and
- the amount of additional catch that might have been displaced at the proposed sites is considered to be negligible.

AQUACULTURE DECISION

60. I am satisfied – based on all relevant information available to me – the activities proposed for the area authorised by coastal permits U190134, U190639, U190640, U190641, U190548, and U190771 will not have an undue adverse effect on:

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

61. Accordingly, my decision is a determination for coastal permits U190134, U190639, U190640, U190641, U190548, and U190771 with regard to:

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

62. The area of the determination on recreational, customary and commercial fishing totals 9.06 ha within the following coordinates (NZTM2000):

U190134:

Point	Easting	Northing
1	1673556.16	5464096.94
2	1673621.81	5464021.22
3	1673609.07	5464010.31
4	1673553.35	5464061.75
5	1673438.08	5463936.89
6	1673469.15	5463890.44
7	1673431.96	5463858.57
8	1673351.12	5463921.27

U190639:

Point	Easting	Northing
1	1671297.50	5466401.22
2	1671241.68	5466165.74
3	1671178.38	5466194.33
4	1671241.58	5466408.51
5	1671222.87	5466414.04

U190640:

Point	Easting	Northing
1	1671559.19	5467613.03
2	1671416.17	5467243.75
3	1671275.98	5467311.32
4	1671279.95	5467321.57
5	1671390.85	5467278.69

6	1671524.62	5467624.87
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U190641:

Point	Easting	Northing
1	1671423.97	5465957.80
2	1671322.49	5465570.89
3	1671279.04	5465591.35
4	1671375.26	5465958.13

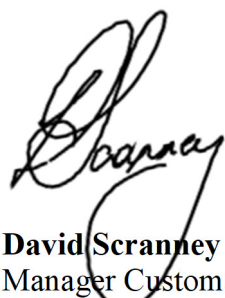
U190548:

Point	Easting	Northing
1	1674782.54	5465834.09
2	1674953.67	5465647.75
3	1674898.96	5465615.54
4	1674743.70	5465783.13
5	1674672.97	5465717.62
6	1674670.41	5465720.41

U190771:

Point	Easting	Northing
1	1676192.37	5468571.26
2	1676248.61	5468562.16
3	1676225.73	5468562.24
4	1676225.01	5468362.30
5	1676319.81	5468361.88
6	1676319.63	5468355.57
7	1676185.25	5468315.06

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



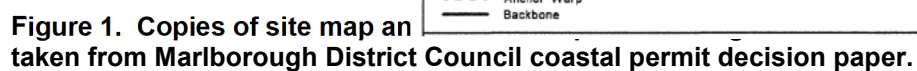
David Scranney
Manager Customary Fisheries and Spatial Allocations
Fisheries New Zealand – Tini a Tangaroa
Ministry for Primary Industries – Manatū Ahu Matua

Dated 17 March 2020

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1. U190134



2. U190639

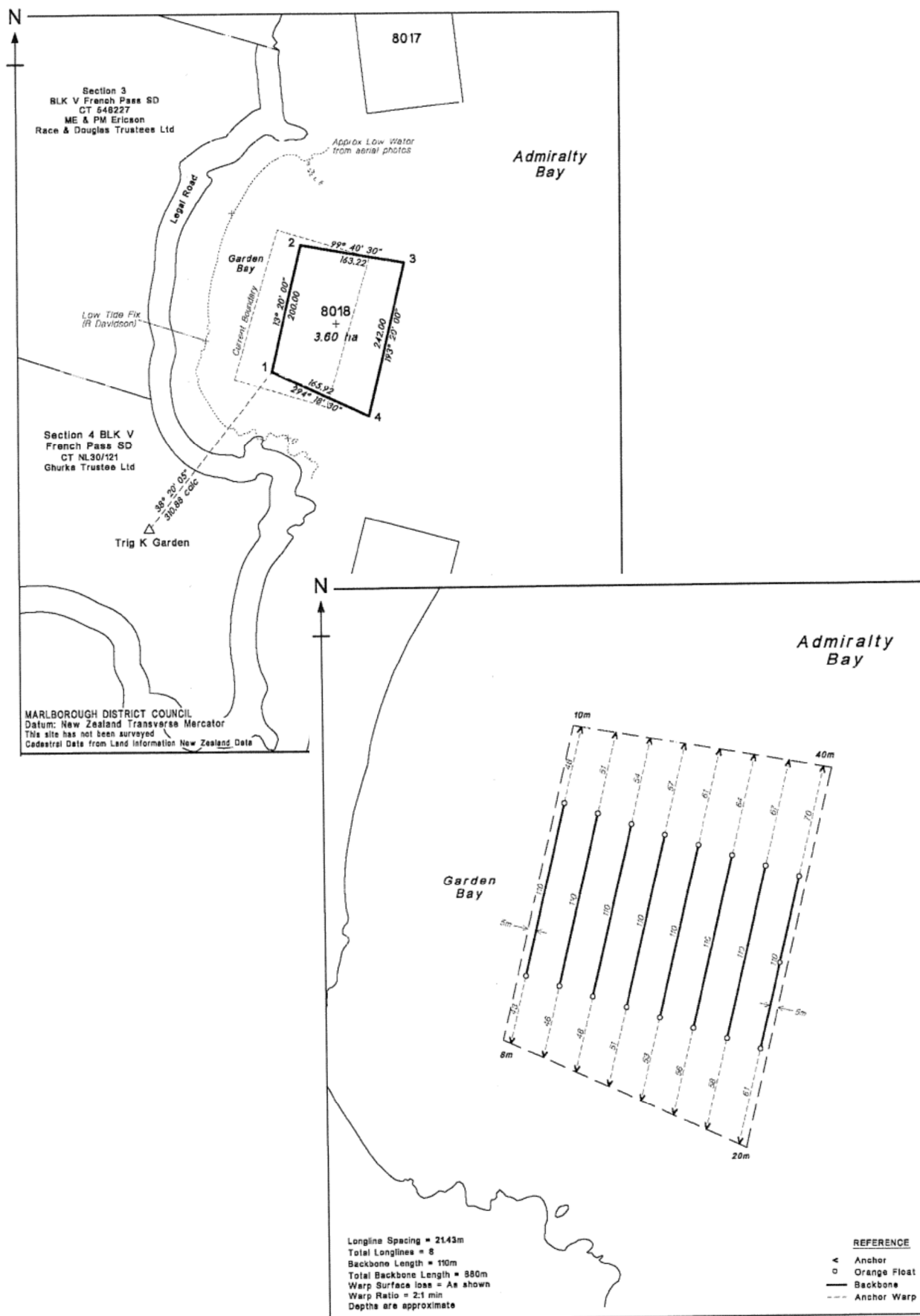


Figure 1. continued.

3. U190640

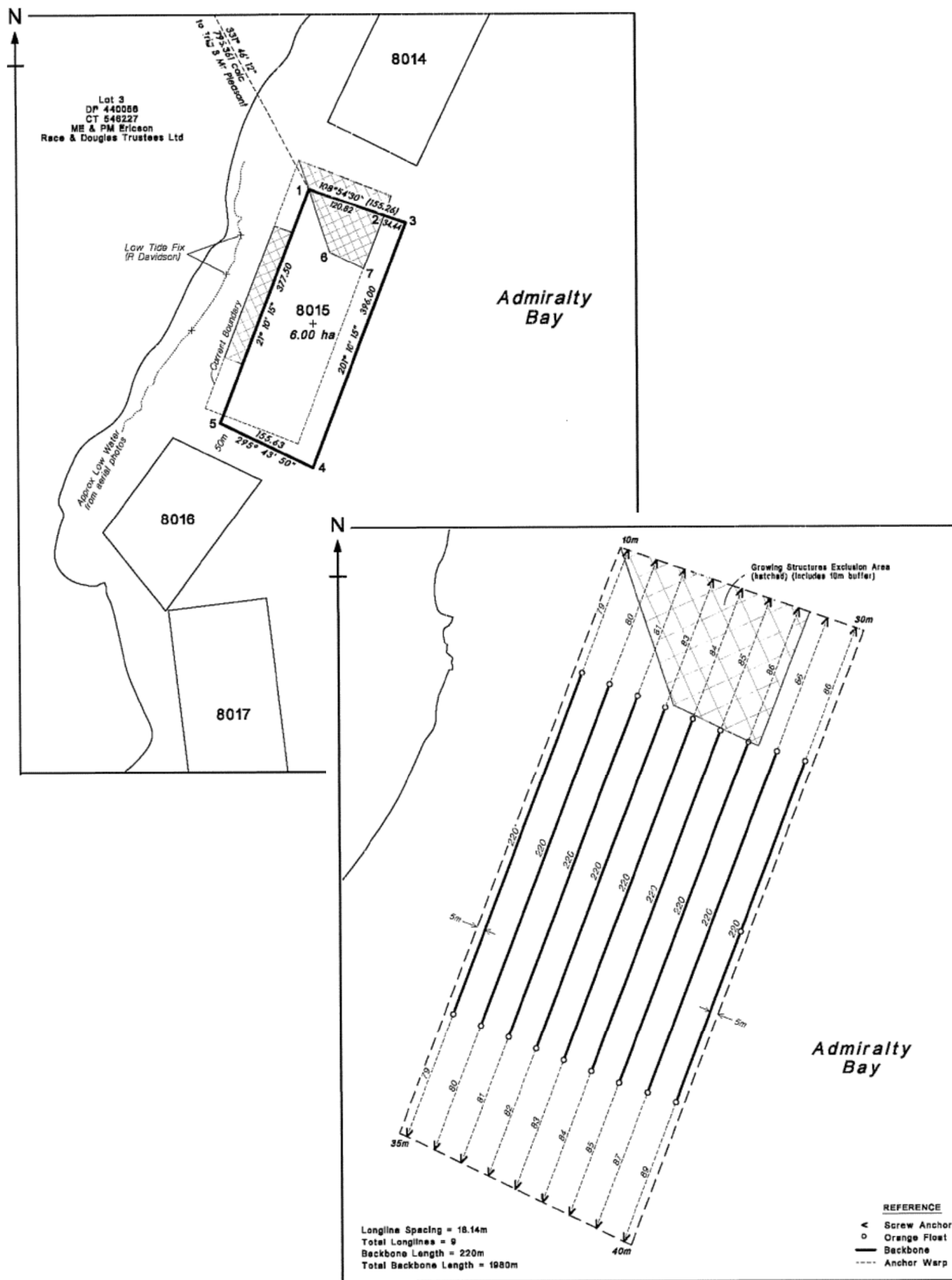


Figure 1. continued.

4. U190641

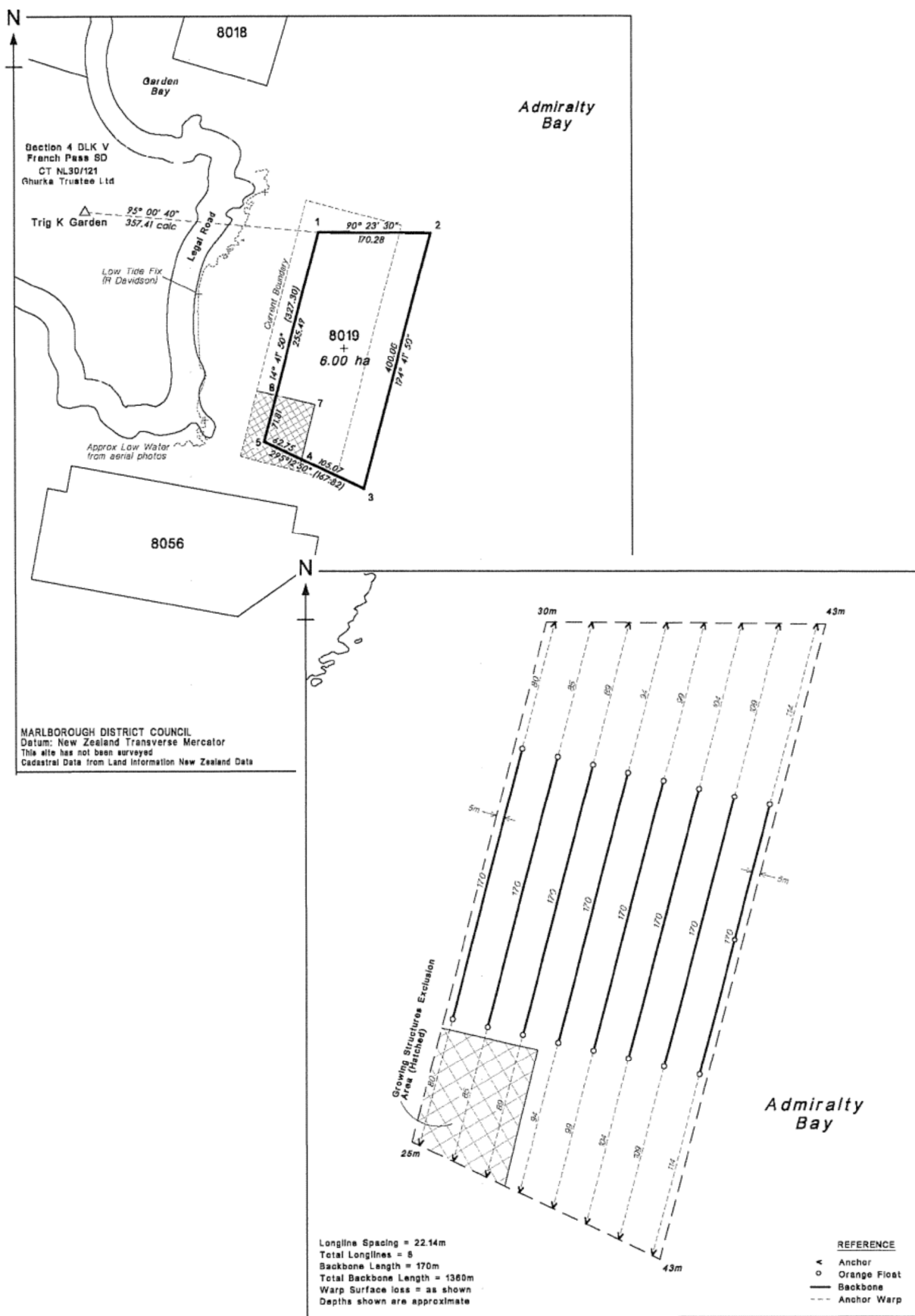


Figure 1. continued.

5. U190548

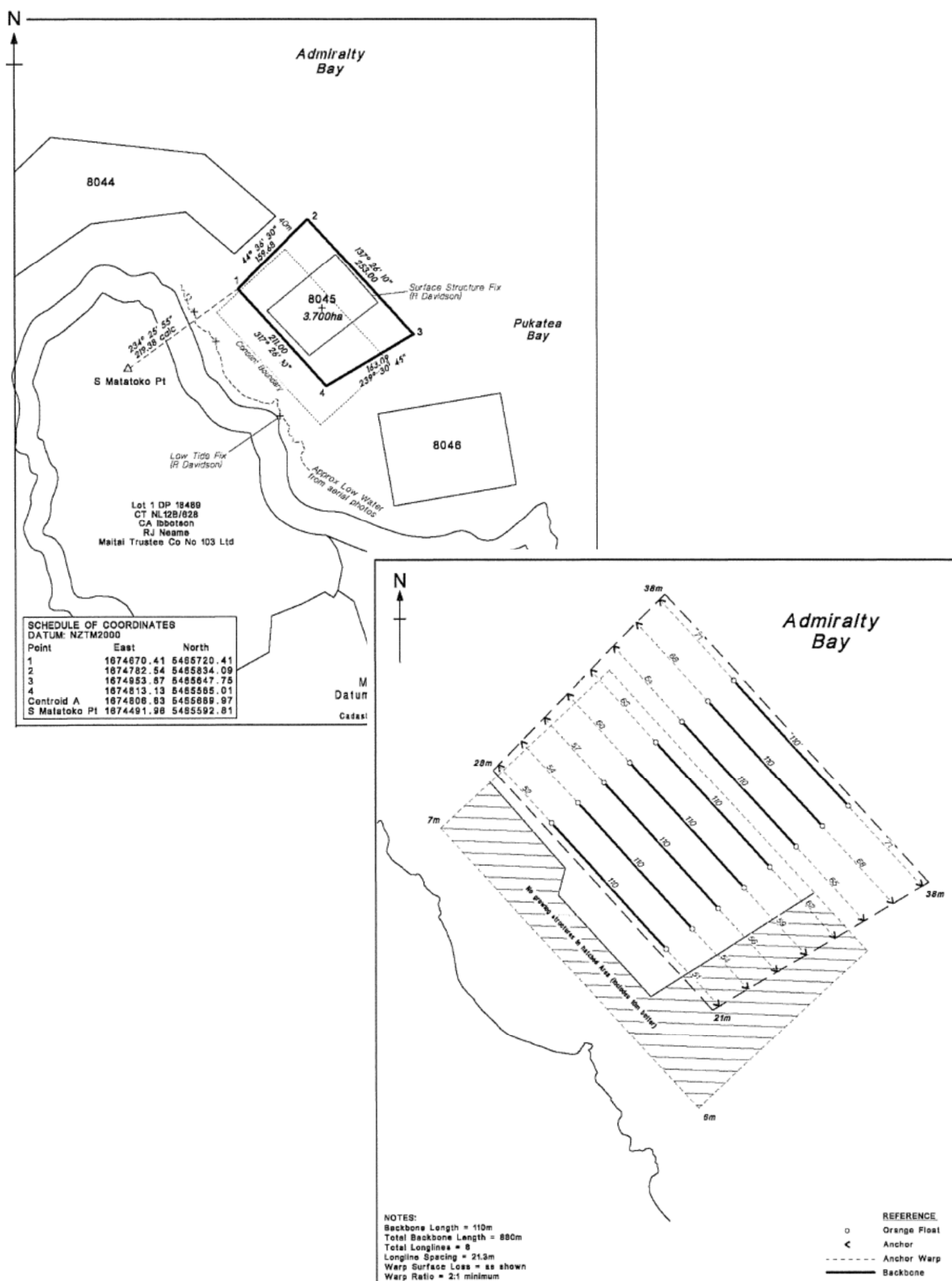


Figure 1. continued.

6. U190771

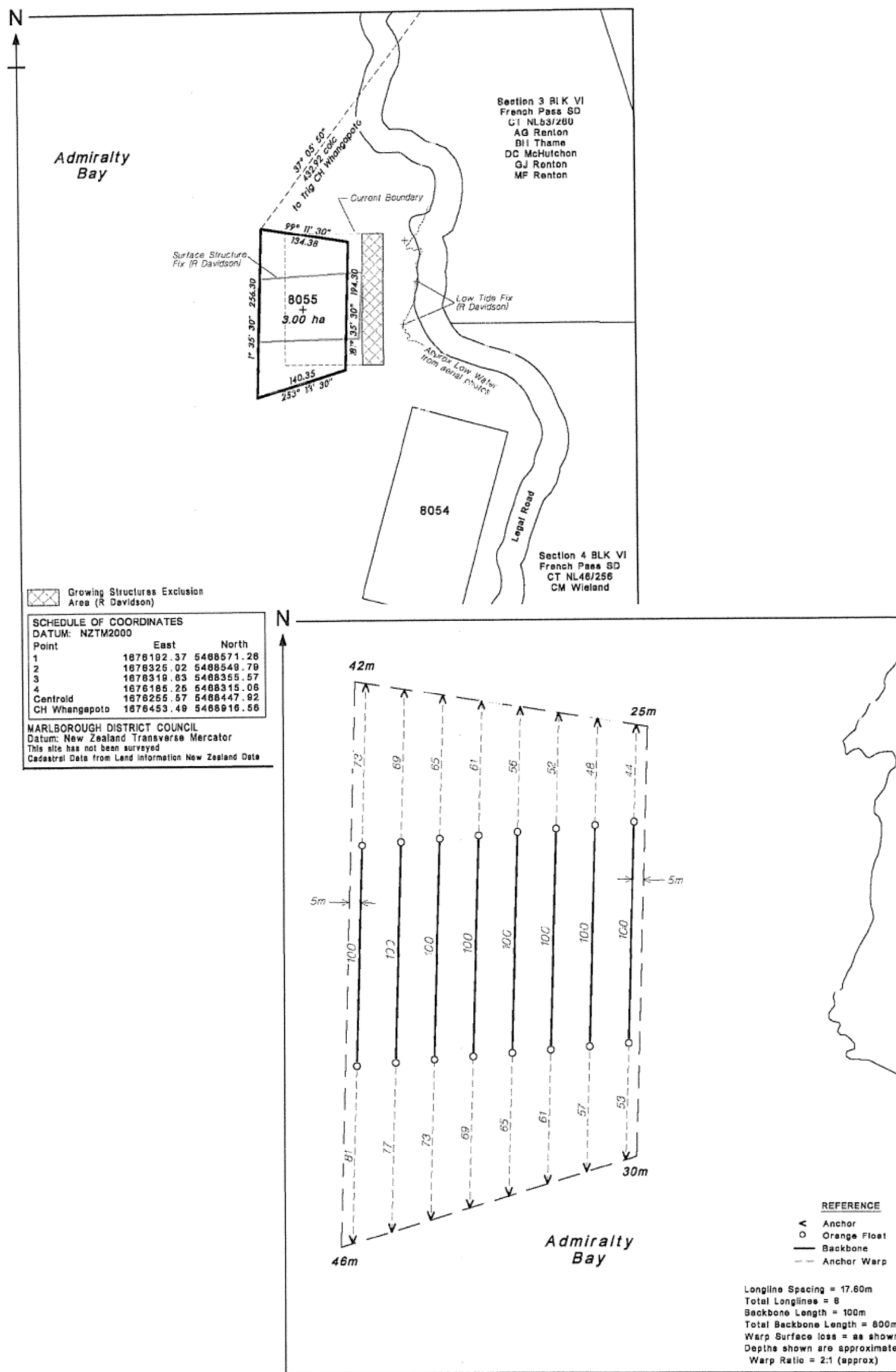


Figure 1. continued.

APPENDIX B: ADDITIONAL STATUTORY CONTEXT

1. Section 186E(3) of the Fisheries Act¹² 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 U180173.
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).

¹² 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.

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.*”

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 (South Island Customary Fishing) Regulations 1998* (the South Island Regulations) define customary food gathering as the traditional rights confirmed by the Treaty of Waitangi and the *Treaty of Waitangi (Fisheries Claims) Settlement Act 1992*, being the taking of fish, aquatic life, or seaweed or managing of fisheries resources, for a purpose authorised by Tangata Tiaki/Kaitiaki, including koha, to the extent that such purpose is consistent with tikanga Māori and is neither commercial in any way nor for pecuniary gain or trade.

8. The South Island Regulations and regulation 50 and 51 of the Amateur Regulations provide for Tangata Tiaki/Kaitiaki to determine the customary purpose for which fish, aquatic life, or seaweed may be taken, methods used, seasons fished, size and quantity taken etc. The South Island Regulations and regulations 50 and 51 do not contemplate restrictions under the Fisheries Act on the quantity of fish taken or the methods used to take fish. Should tangata whenua fish without customary authorisations, all the recreational limits under the Amateur Regulations apply.

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.¹³ 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.

¹³ 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>