

**Coastal Permit – Review of Conditions  
pursuant to Section 128  
of the Resource Management Act 1991**

**In the Matter of the Review of Conditions of Coastal Permit**

<b>File Reference:</b>	U040217
<b>Consent Holder:</b>	The New Zealand King Salmon Company Limited
<b>U040217 is a Coastal Permit to:</b>	Extend the existing <b>salmon</b> and <b>snapper</b> farming structures (currently occupying 1.289 hectares) to occupy a total area of 2 hectares within the existing permit area (10.8 hectares) in the coastal marine zone.
<b>Location:</b>	Otanerau Bay, outer Queen Charlotte Sound
<b>Site No:</b>	8396
<b>Proposal:</b>	To vary and review the conditions of coastal permit U040217 pertaining to occupancy, activity and structures for the purpose of farming Chinook salmon ( <i>Oncorhynchus tshawytscha</i> ) in accordance with the provisions of the Act.

**Decision on a Review of Conditions of Coastal Permit**

**Pursuant to Section 128 of the Resource Management Act 1991 the following decision has been made by the Marlborough District Council:**

**The Conditions of Coastal Permit U040217 now state:**

**Coastal Permit (Structures, Occupancy and Activity)**

1. That this permit shall expire on 31 December 2024.
2. That without restricting the consent holder from reasonably undertaking the activities authorised by this resource consent, the consent holder shall not undertake the activities in such a way that would effectively exclude the public from the permit area.
3. That there shall be no feed artificially introduced into the marine farm unless a specific coastal permit for discharge is firstly obtained. The current discharge permit is U040217.  
  
Only extruded pellets or similar shall be fed at the marine farm.
4. That the occupancy be limited to the **7.55 hectare** area (marked 'U040217') illustrated on the plan attached to this consent, and confined to the area specified within the schedule of New Zealand Map Grid co-ordinates.

5. That the structures be limited to anchors, ropes, droppers, cages, racks, floats and lights associated with the farming of the approved species within the boundaries of the consent area. All structures shall be situated and secured so as to remain within the boundaries of the 2.0 hectare area approved for placing of structures. The number of structures shall be at the discretion of the consent holder, but shall not exceed the area shown on the attached plan (maximum 2.0 hectares).
6. That the placement of marine farm lighting and marking shall be approved by the Harbourmaster under his Maritime Delegation from the Director of Maritime New Zealand pursuant to Sections 200, 444(2) and 444(4) of the Maritime Transport Act 1994. The approved lighting plan is attached.
7. That each corner of the combined cage structure carries the name of the consent holder, and the site number issued by Marlborough District Council (#8396), displayed in bold clear letters in such a manner that they can be clearly read from a distance of 10 metres.
8. That the consent holder maintain all structures to ensure that they are restrained, secure and in working order at all times so as not to create a navigational hazard and take whatever steps are reasonably necessary to retrieve any non-biodegradable debris lost in or from the permit area.
9. That upon the expiration, determination, forfeiture or surrender of the coastal permit the consent holder shall remove all structures, rafts, buoys, longlines, blocks, and all associated equipment from the site, and restore the area as far as is practicable to its original condition, and to the reasonable satisfaction of Council. If the consent holder fails to comply with this clause Council may arrange compliance on their behalf and at the consent holder's expense.
10. That in accordance with section 128 of the Resource Management Act 1991, the Marlborough District Council may review the conditions of this consent at any time for the purpose of ensuring that any actual or potential effects on the environment arising from the exercise of this consent are avoided, remedied or mitigated. See also condition 32 below.

### Reasons for Decision

The grounds for review are to bring the conditions of this coastal permit relating to occupancy, activity and structures into line with the generic conditions for marine farms adopted through the Aquaculture Law Reform processes and to ensure that the new conditions are consistent with the Resource Management Act 1991 and with those in current use.

As the review of conditions relates to existing structures and operations it will not adversely affect other users or values of the area, and will align all marine farms to consistent conditions and processes.

The proposal will not have any adverse effect on the environment.

## Other Matters

1. Unless otherwise specified, this is the full text of the decision.

### *Appeal Information*

2. If intending to object to this decision, the objection must be lodged with the Marlborough District Council within 15 working days of the receipt of this decision.

**Authorised under the Marlborough District Council's Instrument of Delegation by:**

  
.....  
**Marlborough District Council Commissioner**

Dated this 20<sup>th</sup> day of November ..... 2007

## Important Notes

1. That the conditions of this deemed coastal permit be read in conjunction with the conditions of the associated deemed coastal permit, MFL446.
2. Site fallowing: 'fallowing' forms part of fin fish farming activities and that this consent shall not lapse pursuant to Section 125 of the Resource Management Act 1991 if the site is vacated of structures for the purposes of fallowing the seabed.

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 21 FEB 2005  
 MARLBOROUGH  
 DISTRICT COUNCIL

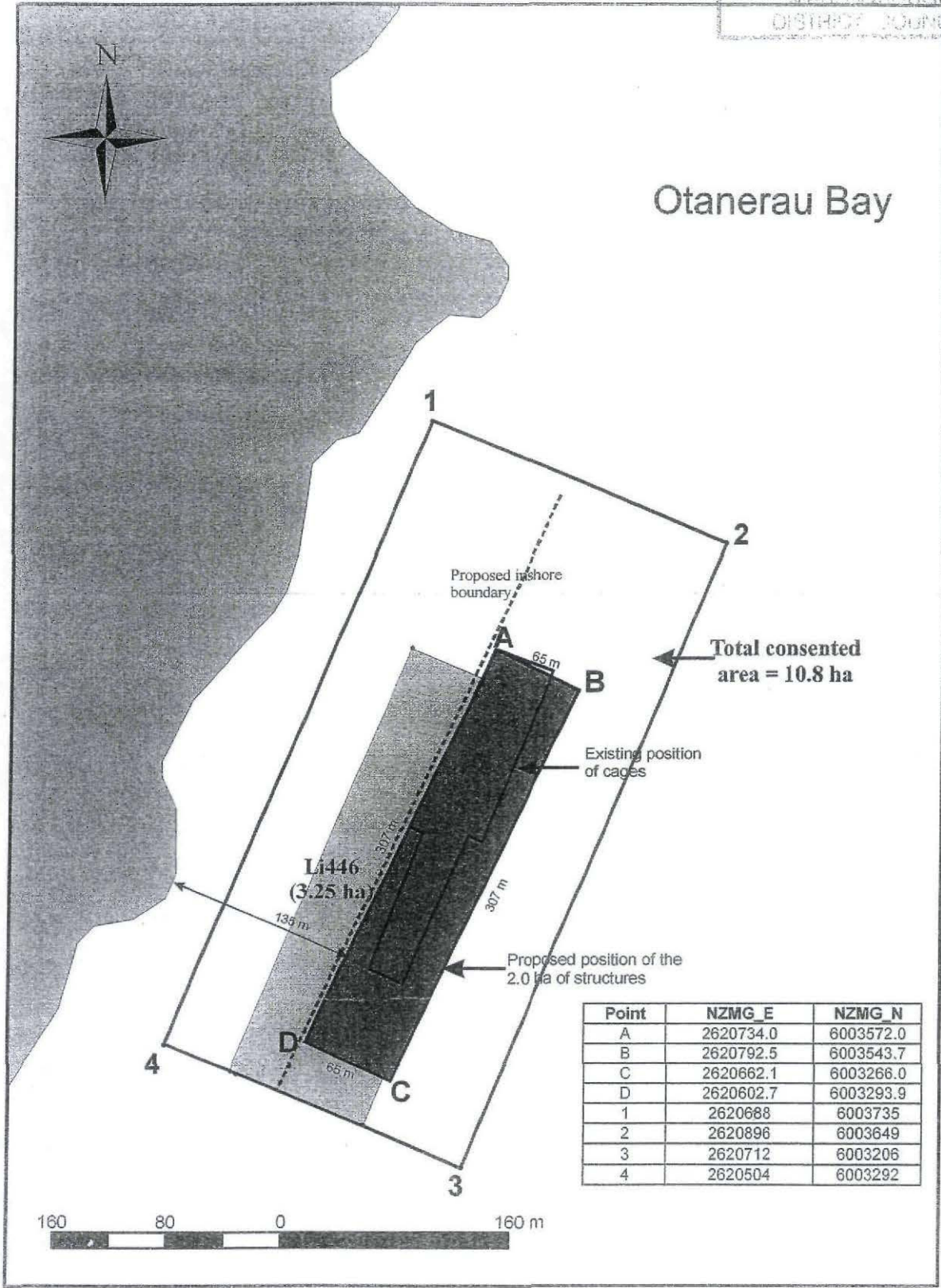


Figure 1: Proposed layout of the Otanerau Bay salmon farm (2.0), showing the present position of the farm.

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 DISTRICT COUNCIL

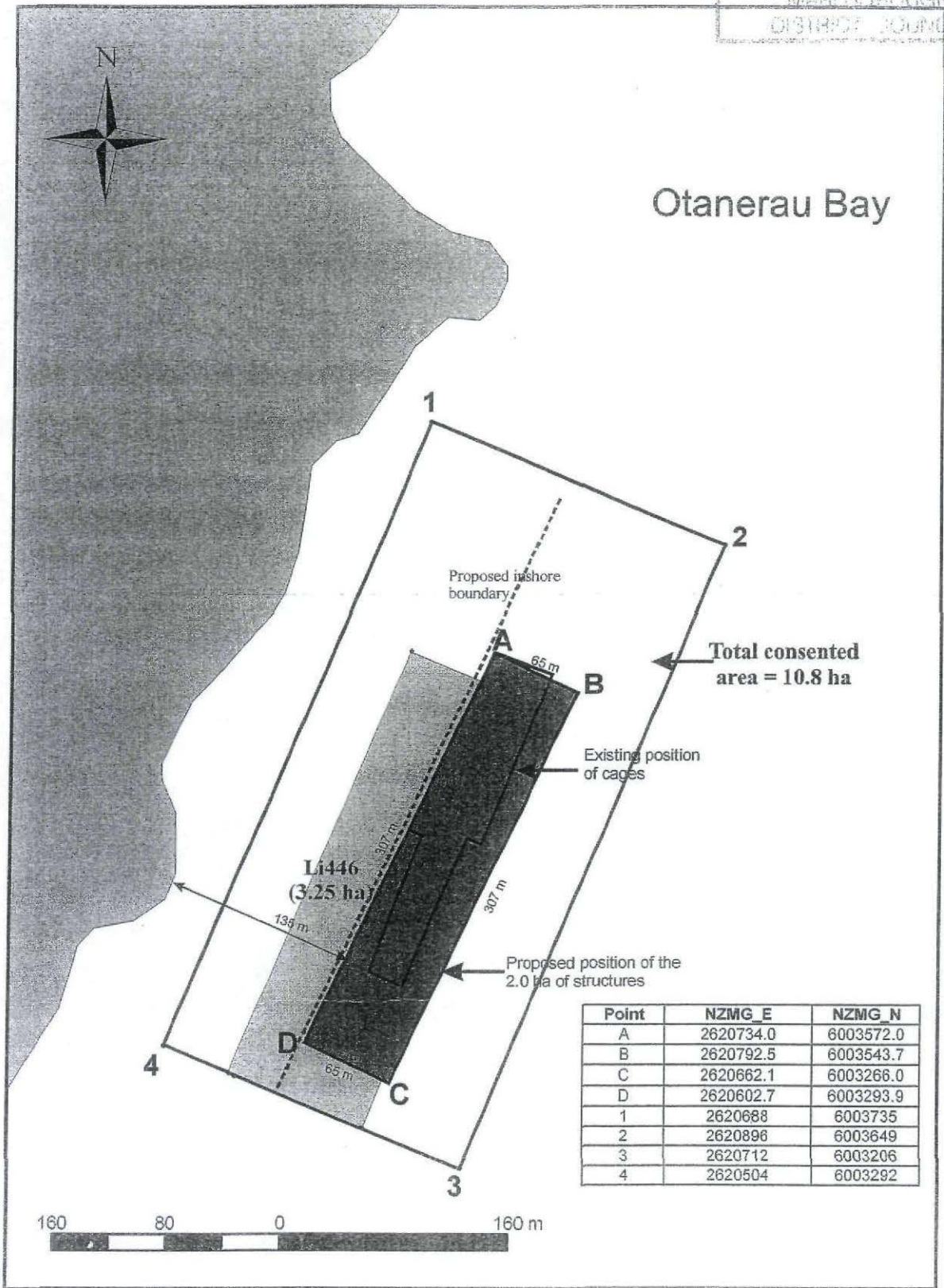


Figure 1: Proposed layout of the Otanerau Bay salmon farm (2.0), showing the present position of the farm.

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Structures and lighting plan:

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21 FEB 2006  
MAYOR  
DISTRICT COUNCIL

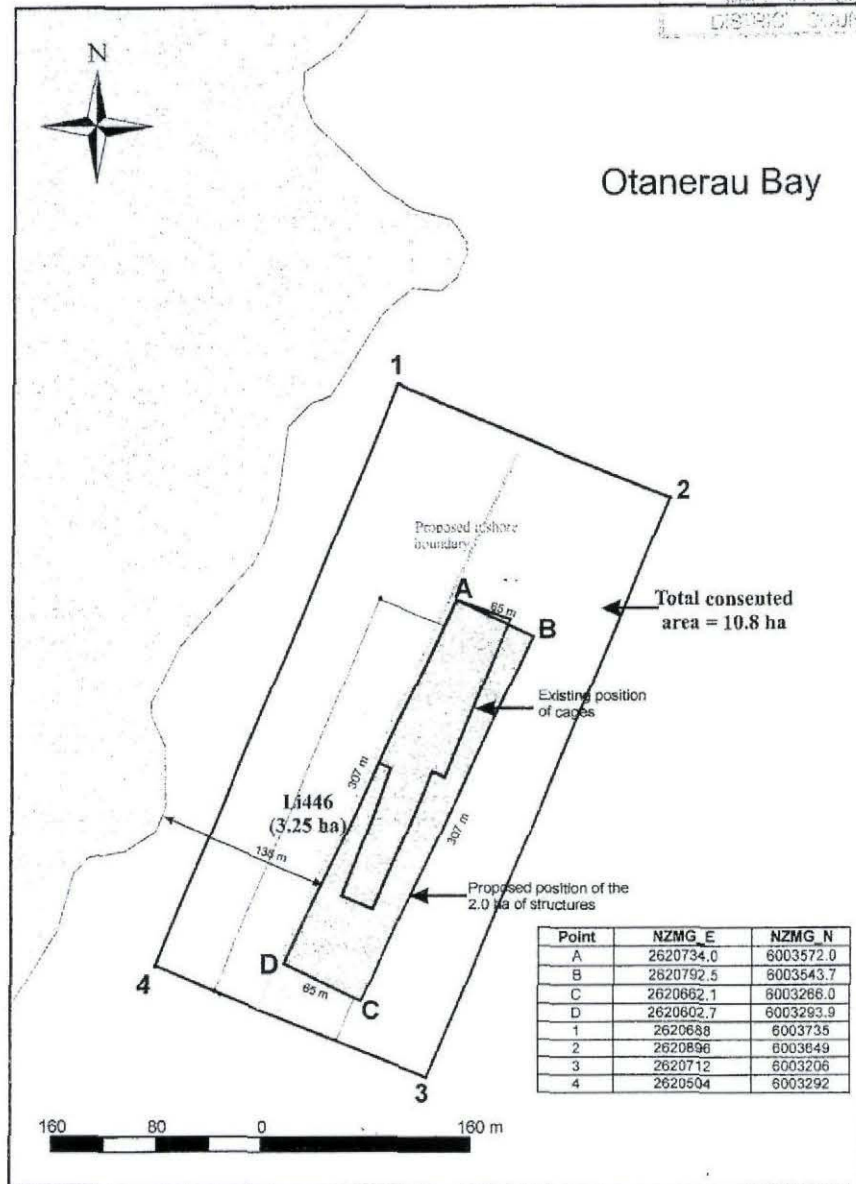


Figure 1: Proposed layout of the Otanerau Bay salmon farm (2.0), showing the present position of the farm.

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**Marine Farm Lighting and Marking Plan –  
MPE763, MFL446, U040217 (Site no.8396)**

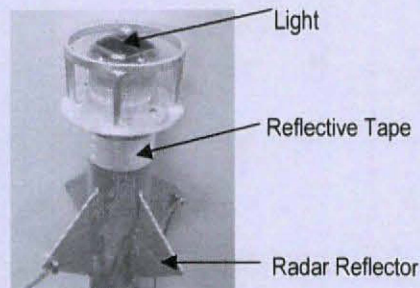
I, Alexander van Wijngaarden, Harbourmaster of Marlborough District Council, hereby approve, under Maritime Delegation from the Director of Maritime New Zealand pursuant to Sections 200, 444(2) and 444(4) of the Maritime Transport Act 1994, the lighting and marking associated with coastal permit MPE763, MFL446, U040217 (Site no.8396), located in Otanerau Bay, outer Queen Charlotte Sound as follows:

1. That each end of each longline display an orange buoy, as shall the middle of each of the seawardmost and landwardmost longlines.
2. That a yellow light, radar reflector and a band of reflective tape 50 millimetres in width be displayed in the positions marked 'A' on the attached structures plan. The lights shall be solar powered and shall have the following characteristics:

**Flash:** Flashing (5) every 20 seconds. Length of flashes no less than 1 second. Interval between flashes, no less than 1 second.

**Range:** At least 1 nautical mile.

**Height:** Greater than 1.0 metre above the surface of the water.



3. That radar reflectors and a band of reflective tape 50 millimetres in width be displayed in the positions marked 'B' on the attached structures plan.
4. That a band of reflective tape 50 millimetres in width be displayed in the positions marked 'C' on the attached structures plan.

Given under my hand this 21<sup>ST</sup> day of NOVEMBER 2007

  
ALEXANDER VAN WIJNGAARDEN

Structures and lighting plan:

RECEIVED  
21 FEB 2008  
MAYOR'S OFFICE  
DISTRICT COUNCIL

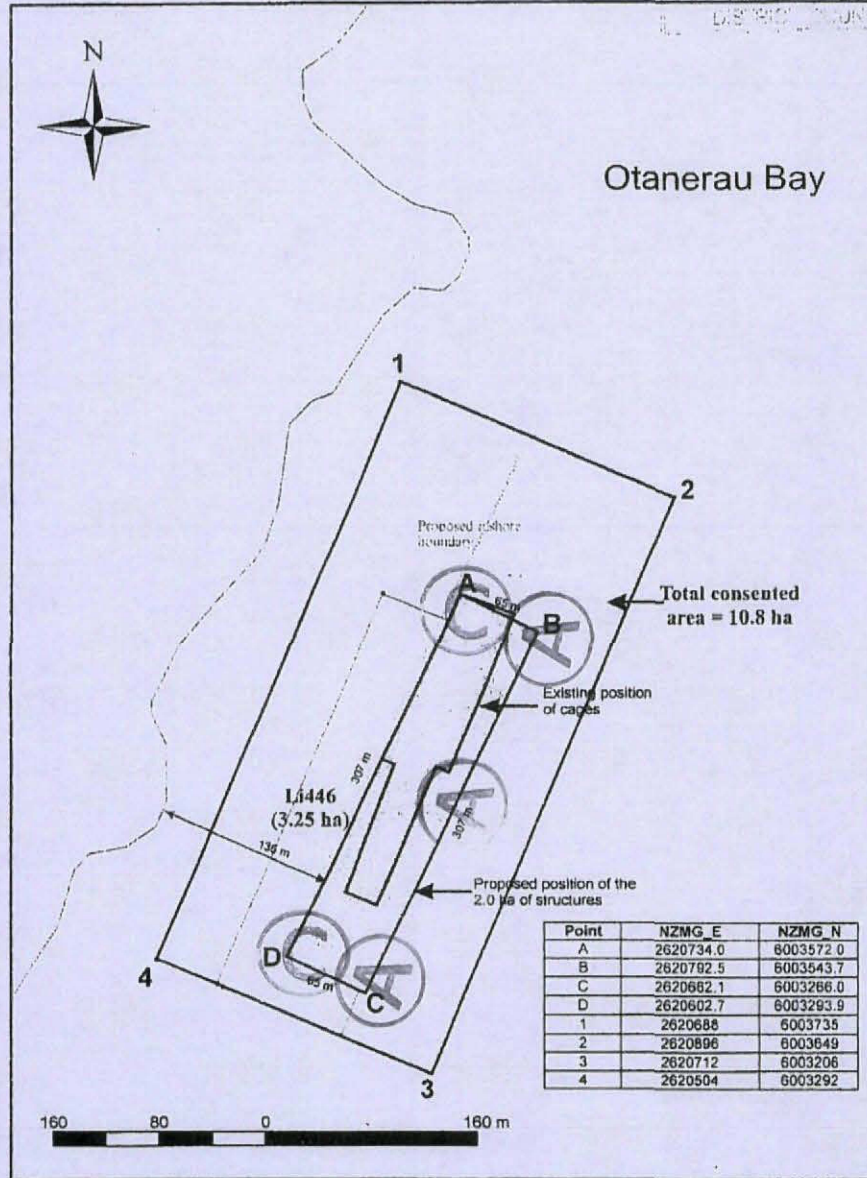
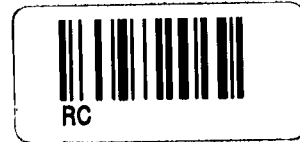


Figure 1: Proposed layout of the Otanerau Bay salmon farm (2.0), showing the present position of the farm.

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21/11/07



**RESOURCE MANAGEMENT  
ACT 1991**



**Decision on Application for  
Resource Consent**

**RESOURCE CONSENT No: U040217**

**APPLICANT:** The New Zealand King  
Salmon Company Ltd

**This document contains a record of  
decision(s) on the following application  
for resource consent(s):**

Coastal Permit (Activity)  
Coastal Permit (Structure)  
Coastal Permit (Occupancy)  
Coastal Permit (Discharge to Seawater)

**DECISION DATE:**

**22 April 2005**

## **Important Information**

A resource consent is comprised of:

- A decision document (subject to the outcome of any appeals/objections), and;
- The application for resource consent, except where modified by conditions.

An information sheet is attached which sets out the provisions of the Resource Management Act 1991.

It is important that you keep this document in a safe place; together with any future amendments that may be made to conditions of the resource consent.

**THE RESOURCE MANAGEMENT ACT 1991**  
**HEARING BEFORE A COMMISSIONER**

**Marlborough District Council Resource Management Hearing -  
Application for Resource Consent - Coastal Permit (Structure, Activity, Occupancy &  
Discharge to Seawater) - Otanerau Bay, East Bay, Arapawa Island  
- Application on behalf of New King Salmon Company Limited  
Consent No U040217**

**APPLICANT:** The New Zealand King Salmon Company Limited (NZKS)

**LOCAL AUTHORITY:** Marlborough District Council

**APPLICATION REFERENCE:** U040217

**PROPOSAL:** To extend the existing salmon farming structures (currently occupying 1.289 hectares) to a total area of 2 hectares within existing permit area.

To discharge up to 4000 metric tonnes of salmon feed per annum.

NB: This is a new permit replacing the occupation of the Coastal Marine Area previously authorised by U010127 (expiring 31 July 2004) and U950653 (anchoring area expiring 1 August 2004).

**CONSENTS APPLIED FOR:** Coastal Permit – Structure, Occupancy, Activity and Discharge to Seawater (20 year duration)



**SITE OF APPLICATION:** Otanerau Bay, East Bay, Arapawa Island

**HEARING:** Tuesday, 29 March 2005 at Blenheim

## 1 Introduction

- 1.1 A hearing was held at the Marlborough Civil Defence Headquarters in Wither Road, Blenheim at 9.00 am on 29 March 2005.
- 1.2 Application was made for a Coastal permit to extend the existing salmon farming structures currently occupying 1.289 hectares to a total of 2.0 hectares within the existing permit area of 10.8 hectares and also a Discharge consent to allow for the discharge of up to 4000 metric tonnes of salmon feed per annum into Otanerau Bay, Arapawa Island. The term of the consent has been requested to be 20 years.
- 1.3 I noted that this occupancy and activity had been previously authorised by Coastal Permits U950653 (anchorage area) and U010127 (structures) and that although these permits had expired (July 2004) the applicants were entitled to continue in operation pursuant to Section 124 of the Resource Management Act until a decision on this application is made.
- 1.4 The hearing was attended by:
- 1.5 Mr Brian Fletcher of Gascoigne Wicks, Blenheim, appearing on behalf of the New Zealand King Salmon Company and with him giving evidence were:
- 1.6 Mr Paul Steere, Chief Executive Officer, New Zealand King Salmon Company
- 1.7 Mr Stuart Hawthorne, General Manager Aquaculture, for New Zealand King Salmon Company
- 1.8 Mr Mark Gillard, Operations and Contract Manager, New Zealand King Salmon Company
- 1.9 Mr Barry Forest of the Cawthron Institute read evidence on behalf of Mr Grant Hopkins an environmental scientist for the Cawthron Institute who was unavailable to attend the hearing for personal reasons.
- 1.10 Submissions were received from:
- 1.11 Te Atiawa Manawhenua Ki Te Tau Ihu Trust
- 1.12 Mr R and Mrs M Rowe



- 1.13 Mr Peter Beech on behalf of Guardians of the Sounds
- 1.14 The Director General of Conservation
- 1.15 Mrs Monyeen Wedge on behalf of the Lochmara Bay Residents Association
- 1.16 Velide Investments Ltd
- 1.17 East Bay Conservation Society Inc.
- 1.18 Mr Keith Heather, Resource Management Officer represented the Marlborough District Council.
- 1.19 Mr Mark Denize and Mr Lawry Healy attended the hearing and presented submissions on behalf of the East Bay Conservation Society and read evidence on behalf of Dr Jonet Ward, a director of the Puriri Preservation Limited and a member of the East Bay Conservation Society.
- 1.20 I have read all the submissions pertaining to this application and considered them during my deliberations.
- 1.21 At the hearing a letter dated 24 February 2005 authored by Joanna May Gould, Community Relations Manager for the Department of Conservation was tabled stating that since the submission was lodged the Department has held further discussions with the applicant and a number of suitable conditions of consent have been agreed upon. They stated that *“provided any consent granted included the agreed conditions of consent the Director General was satisfied and withdrew his right to be heard in support of his submission”*.
- 1.22 A letter was tabled from Anderson Lloyd Caudwell, Barristers and Solicitors, Dunedin, on behalf of Velide Investments Limited stating that Velide Investments Limited had withdrawn its submission dated 7 October 2004.
- 1.23 A submission was received from Mrs Monyeen Wedge, representing the Lochmara Bay Residents’ Association, giving an apology for not attending the hearing and presenting a submission supporting their opposition to the application.
- 1.24 Mr Mark Denize presented an apology on behalf of Mr R and Mrs M Rowe of Te Aroha Bay, East Bay, stating that they were unable to attend the hearing due to weather conditions prevailing in the Sounds at the time.
- 1.25 A letter was tabled from Ms Glenice Paine on behalf of Te Atiawa Manawhenua Ki Te Tau Ihu Trust outlining the fact that further information had been supplied by New Zealand King Salmon Company and Te Atiawa had had an opportunity to reassess the application. They stated that Te



Atiawa had taken into account the monitoring conditions put forward by New Zealand King Salmon and the recommendations from the Marlborough District Council, and as such Te Atiawa conditionally withdrew its submission on the basis that ongoing consultation and information sharing between all parties would be normal practice.

## 2 Background

- 2.1 The subject marine Farm Licence No 446 is situated on the western side of Otanerau Bay. The site was established in 1989 as a salmon farm.
- 2.2 At that time the total occupation area was 3.25 hectares. Since 1989 there have been three further coastal permits issued specifying structure types and anchorage areas for this site. Coastal Permit U950653 extended the licence area by the addition of a 7.55 hectares anchorage zone. Coastal Permit U981011 authorised two 83 x 53 metre cages, four 31 x 31 metre cages, one 20 x 10.5 metre service barge and one 8 x 8 metre accommodation barge. A further consent number U010127 authorised a total structure area of 1.35 hectares and the discharge permit for the discharge of up to 3000 metric tonnes of salmon feed. The total area of approved occupation at this time is some 10.8 hectares. 1.29 hectares may be occupied by surface structures, the remainder utilised for anchoring purposes.
- 2.3 The current salmon farm occupies a space zoned Coastal Marine Zone Two within the Marlborough Sounds Resource Management Plan (MSRMP). It shares the bay with a number of other marine farm licences and established marine farms.
- 2.4 The applicant has applied to increase the area occupied by structures to a total of 2.0 hectares with the configuration and location of cages and ancillary barges within the permit area, to be at the discretion of the consent holder.
- 2.5 The extension of the marine farm activity will necessitate an increase in the amount of salmon feed currently discharged from 3000 to some 4000 metric tonnes.
- 2.6 New Zealand King Salmon operate four active marine farm sites and hold occupancy rights for up to five throughout the Marlborough Sounds. Fingerlings from New Zealand King Salmon land based hatcheries at Southbridge (Canterbury), Golden Bay or Kaituna are used to stock the present marine farms.
- 2.7 The salmon farm is located on the west coast of Otanerau Bay, some 500 metres southwest of Parea Point. The head of Otanerau Bay is identified as an area of outstanding landscape in the MSRMP, I



was told that some of the farm would lie within this area. The adjacent coastline rises steeply away from rock and cobble intertidal zones and is currently covered in commercial forestry to a ridgeline approximately 200 metres above sea level.

- 2.8 A mussel farm licence No MF136, owned by Mr T J Schwass, lies to the south of the farm.
- 2.9 The head of Otanerau Bay is relatively flat with a wide intertidal zone and a hinterland of regenerating pasture with some quite mature bush within the gullies etc. The nearest residence to the salmon farm under consideration would be a house owned by Puriri Preservation Society at the head of Puriri Bay just under 1 kilometre from the existing structures of the farm. The structures would be visible to the houses on the northern coast of Te Aroha Bay belonging to the Rowe family and Mr and Mrs Thompson.
- 2.10 The land adjoining the coastal marine zone is classified as Rural One, while the foreshore reserve 20 metres inland from mean high water as a Conservation zoning identified for it. The Coastal Marine Zone in this area is identified as Coastal Marine Zone 2 under the Marlborough Sounds Resource Management Plan.
- 2.11 The Marlborough Sounds Resource Management Plan and Coastal Plan became operative on the 28 March 2003.
- 2.12 I was informed by Mr Fletcher at the start of the hearing that the Company had agreed, after discussion with various submitting parties, to confine the structures of the salmon farm on the surface to the 2.0 hectare zone identified by the application, thus restricting an ability to place those structures within the full licensed area. He also informed the hearing that New Zealand King Salmon had agreed to withdraw an underwater lighting component of the application, here again after discussion with various submitting parties.
- 2.13 In assessing the status of the application there appeared to be general agreement between Mr Fletcher, and Mr Heather for the Council.
- 2.14 As some of the farm lay outside a distance of 200 metres from the shore then the MSRMP requires that the application be dealt with as a non complying consent. It was also agreed that the feed discharge portion of the application would be required to be assessed as a discretionary activity. As I am required to deal with the application as a whole and take the more onerous status I intend to assess the application as a Non Complying activity.



### 3 Hearing

- 3.1 Mr Brian Fletcher representing New Zealand King Salmon Company Limited opened at the hearing with a background to the current application. He introduced various witnesses and these I have listed above.
- 3.2 He told the hearing that the application was essentially for the renewal of the existing resource consents that applied to the farm and went on to explain that coupled with this was an application for an increase in the size of salmon farming structures and the amount of feed that could be used.
- 3.3 Mr Fletcher said that initially the Company had sought to be able to place the structures basically anywhere within the consented area. After discussions however with the Department of Conservation and other parties, they sought to confine the configuration of structures to within the 2.0 hectare area, with the 2.0 hectares being set at a fixed point.
- 3.4 Mr Fletcher then explained the situation relating to Mr Hopkins non attendance at the hearing and introduced Mr Forest who would present evidence on Mr Hopkins's behalf. Mr Forest had been extensively involved in the project and the writing of the report and was able to comment on matters contained within Mr Hopkins's evidence and answer any questions as an expert and from direct knowledge.
- 3.5 Mr Fletcher told the hearing that the provisions of Coastal Marine Zone rule 35.2.5 specifies that the renewal of an existing coastal permit was a controlled activity and that this particular salmon farm was not one specifically identified in Appendix D of the Plan. He submitted that had this application had been solely a renewal without alteration to the current consent then it should be dealt with as a controlled activity where the Council must grant the application, but subject to imposing suitable conditions. He went on to explain however that the application requested reconfiguration and expansion of existing structures and also that part of the farm would be beyond 200 metres from the shore. He concurred with Mr Heather's conclusions that the application should be dealt with as a non complying activity.
- 3.6 Mr Fletcher submitted in Clause 19 of his submission that he accepted there may be no permitted base line in this particular application but he believed that it would be artificial to disregard what was currently occurring on the site and could continue as a controlled activity consent.
- 3.7 Mr Fletcher then went on to comment on matters brought up by submitters received with the notification of the application and took issue with a number of these points. He commented particularly on East Bay Conservation Society's submission that the site would not be deemed suitable under the new legislation regarding Aquaculture Marine Areas (AMA) under section 20 of the Aquaculture Law Reform Act.





- 3.8 In commenting on Clause 175 of Mr Heather's report he concurred with Mr Heather's view that he did not believe that the application was contrary to the objectives and policies of the MSRMP and went on to say in his Clause 46: *"if it is accepted that the proposal is not contrary to the objectives and policies and/or the effects are no more than minor then the application passes the gateway of section 104D of the Resource Management Act"*.
- 3.9 Issues relating to section 104 of the Act were then dealt with by Mr Fletcher and these included the physical nature of the site, the ecological effects on water quality and sustainability, amenity effects, noise and recreational use, marine mammals, navigation and positive benefits.
- 3.10 Mr Fletcher then covered briefly issues relating to the New Zealand Coastal Policy Statement and Resource Management Act and then went on to briefly describe the Adaptive Management technique which the applicants proposed for this application. He quoted a number of cases, including Kuku Mara Partnership (Forsyth Bay) v Marlborough District Council, Environment Court W25/2002, and also the second interim report to the Minister of Conservation on the enquiry into aquaculture references in Tasman Bay.
- 3.11 In quoting from the later case ( para 405) Adaptive Management was described as:
- 3.12 *"An experimental approach to management, or 'structure learning by doing'. It is based on developing dynamic models that attempt to make predictions or hypothesis about the impacts of alternative management policies. Management learning then proceeds by systematic testing of these models rather than random trial and error. Adaptive management is most useful when large complex ecological systems are being managed and management decisions cannot wait for a final research results."*
- 3.13 Mr Fletcher stated that the adaptive management regime allows for applications to be granted with conditions that ensure ongoing checks are carried out in a scientific way to minimise risk. New Zealand King Salmon proposed an adaptive management system that would provide ongoing information to the Department of Conservation and the Marlborough District Council and also highlighted the fact that the Department of Conservation in their submission believed that an adaptive management regime should be adopted.
- 3.14 Mr Fletcher pointed out in Clause 66 of his submission that Adaptive Management regimes for salmon farms, had already been approved at two of the applicants other farms, those being Ruakaka Bay and Te Pangu Bay.



- 3.15 Mr Paul Steere then gave evidence on the background of the company and the industry as a whole. He introduced various members of New Zealand King Salmon Company management and research team and gave an outlook for the industry on a worldwide basis.
- 3.16 He pointed out to the hearing that the purpose of the application was not only to renew the current consent for this site but also to give the company flexibility in the way that it manages its salmon farms, with the ability to be able to move fish stocks from farm to farm when the need arose.
- 3.17 Next to give evidence was Mr Stuart Hawthorn, General Manager Aquaculture, New Zealand King Salmon Company Limited. Mr Hawthorn lives and works predominately in Blenheim and Picton and holds degrees in marine biology aquaculture that he received from Stirling University Institute of Aquaculture.
- 3.18 Mr Hawthorne stated that New Zealand King Salmon was the largest producer of salmon in New Zealand at 5000 metric tonnes per year. He described the company's position within the New Zealand market and the various products and brands that the company produces. He went on to describe how he believed salmon farms occupied a tiny portion of the coastal marine environment and generated significant employment and income from that occupation. He recognised the fact that salmon farms do have an environmental effect but once the farm had been removed then those effects would disappear over a relatively short number of years.
- 3.19 Mr Hawthorne then described the practice of salmon farming, the amount of space required for the fish, their feeding patterns and contents of feed, also issues relating to disease and pests of the enterprise.
- 3.20 In Section 4 of his evidence Mr Hawthorne described the objective of the application as he saw it and I quote:
- 3.21 *"4.1 Objective of this application.*
- 3.22 *4.1.1 - the first stage of the application is to renew consent to continue operations at Otanerau as resource consent U010127 expired at the end of July 2004.*
- 4.1.2 - this application also seeks to change the way that feed discharges are managed from an arbitrary cap on feed discharge that has no regard for environmental effects to an 'adaptive management regime' that is effects based.*
- 4.1.3 - this application seeks to see increased operational flexibility granted to King Salmon by allowing up to 2.0 hectares of surface structures (increased from 1.35 hectares). The applicant does not want to have these structures in place at all times, rather to be granted the ability to alter*



*specific structures up to this maximum level on a year to year basis depending on the actual environment of effects that are being observed.*

*4.1.4 - to compensate from the switch to the adaptive management regime and the granting of more flexibility with regard to surface structures the applicant seeks to fix the area where the cages may be moored more specifically, giving up the right to more structures within 38 metres of the border of the consented area. This will change the available area for mooring cages from a maximum of 1.35 hectares of surface structure anywhere within an 8.27 hectare area (77% of the total consented area) to maximum of 2.0 hectares of surface structures within a specific 2.0 hectare area (185 of the total consented area).*

*Specifically fixing the surface structure area means that the proposed adaptive management regime will be easier to monitor and compare from year to year."*

- 3.23 Mr Hawthorne then went on to background the current farm, and told the hearing that fish were first stocked at Otanerau in 1998 and that it was recognised as having potential to be a successful farm due to water depth, generally over 35 metres, and good shelter. He stated that Otanerau tends to be more successful in the development of the fish during the cooler months due to the warm summer temperatures experienced in Otanerau Bay. He believed that the site was integral to their ability to best manage the stock so as to maintain a consistent year round supply for their customers.
- 3.24 After identifying some of the environmental benefits of the application and the operation of the farm Mr Hawthorne went on to describe the economic benefits generated by New Zealand King Salmon with their operation on both a regional and national basis. He highlighted the fact that the turnover of the company was 53 million dollars per year with foreign exchange earnings equal to 34 million dollars and expenditure on staff reached a figure of some 11 million dollars. He reiterated the fact that the company could only continue to thrive and deliver returns of this nature if they were able to have operational flexibility. In terms of social benefits Mr Hawthorne told the hearing that the company employed some 350 staff on a national basis, 88 of these being based in Marlborough.
- 3.25 Next to give evidence was Mr Mark Gillard, Operations and Contracts Manager with New Zealand King Salmon Limited.
- 3.26 Mr Gillard in his evidence described to the hearing the consultation processing undertaken by New Zealand King Salmon and how that process had been undertaken. He told the hearing that the company had been relatively well received by those it had approached. The company had held a number of gatherings on the farm for interested parties during the notification process. This

consultation process was mentioned by a number of submitters who were generally supportive of the company in the effort it has made in keeping the community informed.

3.27 Mr Gillard in Clause 5.5 of his evidence mentioned the discussions with the Department of Conservation had been successfully conducted and this had led to an understanding between the company and the Department of Conservation, which resulted in the Department withdrawing its right to be heard pertaining to this application.

3.28 Mr Gillard then summarised what he believed were the main concerns of the submissions received. These included:

1. Unreasonable and more than minor effect on the seabed.
2. Increase in the area of seabed affected by moving structures, including damage to the fringe habitat with higher conservation value.
3. Otanerau is not typical and has particular marine conservation values.
4. Insufficient current to disperse and dilute waste.
5. Reduced amenity especially for Puriri owners and users.
6. Visual effects of the structures.
7. Unknown effect of underwater lights.
8. Adverse effects on customary and recreational fishery activities.
9. Potential opposition to nearby logging activity.
10. Against intents of Law Reform Bill.
11. Poor initial siting. Need to find an alternative location.
12. Risk of spread of *Didemnum*.
13. Navigational effects by moving cages further seaward.
14. Reduced ability/value from subdivision.

Mr Gillard pointed out to the hearing that New Zealand King Salmon has been possibly unique amongst marine farmers in the Sounds by providing detailed annual seabed analysis of each of its sites. He admitted that seabed effects under the Otanerau farm are relatively high although effects



rapidly decrease within 10 metres from the cage edge. He pointed out the exception to this was the direction of the net current flow to the northwest where effects taper off over some 150-200 metres.

He commented in Clause 7.2 on East Bay Conservation Society's submission that they had concerns regarding the positioning of sea cages closer to the foreshore. Mr Gillard responded to this saying that New Zealand King Salmon agrees not to move its cage structures closer to the shore and this would ensure that the deposition footprint continues to be away from the higher valued near shore rocky habitats.

When discussing tidal currents Mr Gillard told the hearing that a number of hydrodynamic surveys had been done of sea currents within the bay and these had shown currents to be moderate even at depth with a marked tendency to be to the northeast at the farm location. He stated that this had been borne out by investigations done by the Cawthron Institute during the process of seabed monitoring. He believed that because of the difference in currents between this site and that at Te Pangu the AMR will require New Zealand King Salmon to manage the stocks at this farm very differently to those at Te Pangu, taking into consideration the different impacts that occur at the different locations.

- 3.29 Mr Gillard believed that the visual impact from the farm would be most notable from the sea with a lesser impact being experienced from the nearest residents some 1 kilometre away in Puriri Bay. He said that the site of the expanded farm would appear little different from the existing situation where some difference may be visible if viewed from end on. His submission however was that because of the backdrop of the farm, its visibility would be decreased by the rugged shoreline adjacent to the farm.
- 3.30 Mr Gillard presented a number of photographs taken from various places within Otanerau in support of his conjecture that there will be very little visual impact from any increased size in structures at the current farm.
- 3.31 He underlined the fact that the company had withdrawn its request for underwater lighting at this site, in response to concerns from a number of submitters.
- 3.32 Mr Gillard did not believe that there would be any impact from the farm on local recreational or customary fishing use.
- 3.33 In referring to the Velide Investment Ltd submission, which he pointed out had been withdrawn, due to the fact that an agreement had been reached between New Zealand King Salmon and Velide Investments Ltd with regard to future logging of the adjacent forest.



- 3.34 Mr Gillard then went on to talk about the biosecurity risk posed by *Didemnum vexillum*. He told the hearing it had been observed at Otanerau Bay salmon farm and at one other site on Arapawa Island. At the other site, the pest had been successfully eradicated but he told us the pest found at the Otanerau Bay farm was still present, and that similar removal attempts on other salmon farms had failed to date. He stated that containment was largely the only possible response. Subsequent to this the company had modified the cleaning and refurbishment of its cages at Picton to minimise the risk of transport and Shakespeare Bay was no longer used for holding cages or barges.
- 3.35 The issue of navigation in the proposed expansion of the farm was a concern of some submitters, however Mr Gillard believed that as Otanerau Bay was not on a main navigation route and the extension seaward of the sea cages was not significant, he did not believe there would be any adverse navigational problems developed from this expansion. It was noted also that no navigation concerns had been expressed by the Harbourmaster.
- 3.36 Mr Gillard believed the issue of noise was not a major concern although some submitters had expressed a feeling that there may well be increased noise due to the increased activity on the farm. Mr Gillard believed that the company could abide by the standards currently set by the MSRMP for the coastal marine area but also believed that some modification to the way in which radios and water blasters were used on the farm would assist in ensuring these standards were complied with.
- 3.37 Mr Stuart Hawthorne then addressed matters relating to environmental effects from the application. He described the Adaptive Management Strategy that was proposed and the monitoring that would take place under that strategy. He summarised the proposed conditions of consent he believed would ensure various environmental safeguards.
- 3.38 Mr Hawthorne commented on the most recent Cawthron report and indicated that management steps were being instituted to mitigate the identified adverse effects that had been highlighted by that report. He also commented on the company's plans for further monitoring and management of detrimental accumulations and sediment around the cages.
- 3.39 Mr Hawthorn then went on to describe the AMR and set out how it proposed various zones and the effect these zones have around the farm. The greater effect being noticed directly under the cages and zones out to 50 metres. Zones from 50 to 150 metres and beyond 150 metres are proposed within the regime, and within each of these zones environmental standards must be met.
- 3.40 He explained the regime would require a base survey to be completed for the site and that increase in feed would be staged dependent on management of the farm and the resulting effect on the seafloor in the various zones. He also stated habitats of high conservation value comprising near shore steep rocky habitat would be specifically protected by an annual survey. With the



introduction of environment performance standards he believed the objectives of environmental protection could be maintained.

- 3.41 Mr Hawthorne went on to discuss the results of the November 2004 survey by the Cawthron Institute and outlined how the company reacted to those results. In concluding Mr Hawthorne discussed the various conditions as proposed in the application and the consent officer's report from the Marlborough District Council.
- 3.42 Mr Barry Forest then read the evidence provided by Mr Grant Alan Hopkins, Environmental Scientist for the Cawthron Institute, and answered questions pertaining to that evidence and to the site with which he was familiar.
- 3.43 Mr Hopkins's evidence described the effect of cage fish farming on the area directly under the farm and some distance from it. He discussed the history of salmon farming at Otanerau Bay, which had taken place for some 15 years. In providing a summary of the environmental effects observed at the site he states in Clause 5.2 of his evidence and I quote: *"The seabed beneath the farm cages was highly enriched, being characterised by black anoxic sediments that smell strongly of sulphide. The organic content of sediments collected from beneath the cages was high (14-19%) and the seabed surface had a patchy cover of mat forming bacteria and patches of uneaten feed pellets.*

*Few epifaunal taxa inhabited the seabed beneath the cages environment, with those present probably reflecting organisms dislodged from the farm structures. The infaunal community that inhabited that inhabited the sediment matrix was consistently species-poor beneath the cages, but often had high densities of enrichment-tolerant marine worms (e.g. Capitellid polychaetes). Capitellid polychaetes are widely associated with organically-enriched conditions, and their abundance is often used as an indicator of enrichment in biological monitoring programmes."*

Video footage of the seabed beneath the Otanerau salmon farm recorded in September 2003 was shown during the presentation of Mr Hopkins's evidence. As the Commissioner who sat on a hearing for the Te Pangu Bay farm I noted with interest the difference in seafloor condition between that of Te Pangu and this farm at Otanerau Bay.

- 3.44 The Cawthron Institute's investigations of the site showed there was a decline in impact as one moved progressively away from underneath the cages. This impact being greater, or lasting a further distance, in a north easterly direction, being the direction of the current.
- 3.45 In commenting on zinc levels at the site Mr Hopkins believed that long term monitoring of zinc levels would be justified if future work showed that zinc concentrations beneath the farm site were elevated with respect to background levels in the region.



- 3.46 Mr Hopkins then highlighted the fact that although localised enrichment from the salmon farm is likely to stimulate plankton growth in down current waters (at some times of the year), the generation times i.e. the time required for plankton to reproduce itself are in order of one to two days for most species. Water column mixing processes would, it was submitted, likely reduce the elevated nutrient concentration to near background conditions within a period of hours, that is, before the plankton are able to reproduce. Thus stimulation of plankton growth would be spread out over a wide area and would not be expected to present any adverse effect.
- 3.47 He suggested that it did not appear that nutrients from the Otanerau farm site would likely have an increased effect on the frequency or magnitude of planktonic bloom events in the immediate vicinity of the farm site. He believed that as not surprising considering the relatively small contribution of nutrients from the salmon farm to the region compared to other sources (e.g. nutrient deep waters from Cook Strait). Mr Hopkins stated that based on the localised nature of the seabed, water column impacts, and the scale of marine farm developments in Queen Charlotte Sound, the Otanerau salmon farm was likely to have a significant adverse effect on the wider Marlborough Sounds eco system. Mr Hopkins points out in Clause 5.20 of his evidence *"In terms of other impacts on the water column the health of the salmon stock itself provides a useful guide to the severity of a number of the water quality concerns relating to salmon farming. In fact, water quality criteria for minimum dissolved oxygen levels and ammonia toxicity are based on juvenile salmonoid fish, since the salmonoid group has been shown to be highly sensitive to such effects."*
- 3.48 Mr Hopkins states that provided the zone concept of the AMR is acceptable in principle he believed it could be modified for the Otanerau Bay salmon farm to reflect the site specific conditions. This would involve an alteration to the shape of the impact zones to recognise the dispersion pattern of farm waste, while ensuring that the total area of the seabed within each zone is no more than would be allowed under a conceptual approach. He does state however that before any expansion occurs further work is required to confirm that the increased footprint contains no special values and to develop an appropriate effects based monitoring programme.
- 3.49 Following this up I asked Mr Forest whether he was aware of any brachiopods under the area proposed of the cages. He said that he had knowledge that there were the shellfish present on the site but the numbers were below those identified by the Department of Conservation's trigger levels.
- 3.50 Following the conclusion of Mr Hopkins's evidence the hearing heard submissions from Mr Mark Denize on behalf of East Bay Conservation Society. Mr Denize also read evidence on behalf of Dr Jonet Ward, a member of the East Bay Conservation Society.





- 3.51 Mr Denize outlined to the hearing that the East Bay Conservation Society Inc was formed in the year 2001 by landowners and residents of adjacent properties to the Coastal Marine Zone Two in East Bay and is still in existence today.
- 3.52 He stated that the East Bay Conservation Society wished to acknowledge the efforts of New Zealand King Salmon to engage the Bay community at an early stage in the consultation process. He stated that he believed that the documentation had been well prepared and was informative and had allowed for the democratic process to arrive at a majority decision by the members of the Society. Mr Denize then referred to the four distinct areas of the application, and agreed that due to the consultation process that the issues of moving the structures within the consented area and the withdrawal of the underwater lighting aspect of the application had satisfied the Society's concerns regarding those two portions of the application. He did state however that the Society was still opposed to the increase in surface areas of the structures from 1.35 hectares to a maximum of 2.0 hectare and also the increase in feed discharge from 3000 to 4000 metric tonnes. Mr Denize also submitted that the Society believed, that in light of the intent of the Aquaculture Reform Bill that any expansion of marine farming in East Bay should be declined.
- 3.53 He pointed out that since the advent of the Resource Management Act greater attention to environmental matters and the impact on habitats of significance within the coastal marine area has taken higher priority than when the farm was first established. He noted in Clause 5 of the submission that the benthos under the farm was "*well and truly compromised*" and suggested that the remaining unoccupied space in Otanerau and Te Aroha Bays was worthy of protection. The Society also stated that they were concerned about an increase in feed and waste products being discharged into the water column and any potential effects these may have on sensitive habitats adjacent to the farm.
- 3.54 Of further concern to the East Bay Conservation Society was the possible transfer of the *Didemnum* from Shakespeare Bay on salmon farm cages and stated they were opposed to further structures the *Didemnum* had clearly taken a liking to.
- 3.55 It was stated that members of the Puriri Preservation Society were concerned that the noise levels that they experienced from the farm activities and also radios and generators associated with it. The Society believed that any increase in size or activity of the farm would increase those noise levels to the people spending time at Puriri Bay.
- 3.56 The East Bay Conservation Society did state that New Zealand King Salmon provided employment for at least one permanent East Bay resident and members of the Society had also expressed appreciation for the co-operative services of O'Donnell Park Barging who serviced the farm and considered that because of the presence of the farm transportation costs for fuel, machinery and

building materials and the like had fallen to competitive rates because of the presence of the salmon farm.

3.57 Issues relating to navigation were also of concern to the members of the Society. It was stated: *“Any seaward extension of the farm would force boats approaching Puriri or the head of Otanerau Bay to take a course in the rougher weather that prevails in the middle of the bay or in windy norwest conditions. This would mainly affect navigational boats but would also create a tighter course for all craft that navigate at night if the extension to licence 409 is granted by the Environment Court.”*

3.58 The East Bay Conservation Society believe that a precautionary approach needs to be taken in approving an extension of the activity of the salmon farm as it has the potential to cause further degradation to inshore habitats.

3.59 Dr Jonet Ward’s evidence as presented by Mr Denize contained three conditions that she believed should be taken into consideration in processing this consent. These included:

1. *That New Zealand King Salmon adopt quieter water blasting in Otanerau Bay such as being currently trialled at Te Pangu.*
2. *That radios should be quiet and never be turned up above the noise of the generator and/or water blaster.*
3. *That no more buildings be allowed on site.*

She concluded by stating that she continued to oppose the application and asked the Council to decline it.

3.60 I have read the evidence presented to the hearing by Lochmara Bay Residents’ Association authored by Mrs Monyeen Wedge and the contents of the submission are similar to those by other submitters in opposition. However, there is one point made by the Association that is a little different from the others and that relates to a concern that there may well be another salmon farm consent established with an adaptive management regime when those regimes are so far “unproven”.

3.61 Following the closure of submissions, Mr Keith Heather of the Marlborough District Council spoke to his report. Mr Heather gave the hearing a brief description of the application and a description of the area in which the application is sited. He particularly noted in Clause 33 that structures would be visible from two residents only on the northern coast of Te Aroha Bay, those belonging to the Rowe family and Mr and Mrs Thompson.



- 3.62 Mr Heather when speaking to his report told the hearing that he believed that there were a number of issues that should be considered when assessing this application.
- 3.63 In terms of landscape and scenic values he states in Clause 50 of his report that *"As noted, the head of Otanerau Bay is identified as an area of outstanding landscape. However, it must be accepted that landscape areas are a broad identification only and it is necessary to assess each site within the context of the application and the character of the particular area affected."* He goes on to say in his report that the contours of the land adjacent to the site are typical of the Queen Charlotte Sound, the land cover has in the past been modified by a history of pastoral activity and is now in production forestry which is expected to be harvested in the next few years.
- 3.64 In Clause 61 of his report Mr Heather states *"While it is accepted that there will be some increase and intensification of the existing effects of the salmon farm on the landscape, the extension of these structures would be an intensification of effects, viewed against the backdrop of the adjoining coastline, rather than the introduction of any new elements."*
- 3.65 He went on to describe the ecological effects including those of water quality and sustainability of the marine environment. He concludes in Clause 64 *"In this instance the principle effects arising are from the deposition of uneaten feed and salmon faeces onto the seabed below, with the release of nitrogen compounds, in particular ammonia, into the water column."*
- 3.66 Mr Heather states in Clause 66 *"The AEE submitted with the application (Cawthron Report No 824 January 2004 - Appendix B) outlines the existing effects on the seabed from deposition of faeces and uneaten feed. This follows a series of surveys carried out annually from 1998."*
- 3.67 Mr Heather goes on in Clause 67 *"The report concludes that the seabed beneath the farm cages is highly enriched and largely anoxic (i.e. deficient in oxygen) with very little animal or plant life. This footprint extended 50 metres from the cages in the north east direction of the prevailing current."*
- 3.68 Mr Heather described a number of suggested remediation solutions to the environment on the seafloor below the cages. These included site fallowing, capture and waste collection, enhancing natural degradation, feed control and conversion.
- 3.69 He went on to describe the AMR that has been outlined earlier on in this decision. Mr Heather highlighted the fact in Clause 112 that it is for the Commissioner to determine whether a known and quantifiable effect can be weighed against the obvious social and economic benefits of the existing and extended activity and whether this would meet the purpose of section 5 of the Act.



- 3.70 He also commented on matters of navigation, access and alienation of public space, and states in Clause 126 *“that the application encompasses a relatively minor extension of marine farm structures within the context of the bay generally. It is not seen therefore to have any adverse effects on public access or alienation of public space.”*
- 3.71 Mr Heather then went on to point out the policies and objectives within the Marlborough Sounds Resource Management Plan which he believed were applicable to this application and he states therefore while not providing any explicit guidance in this particular instance (and he is referring to the policies and objectives at this point), it can be said that the objectives and policies of the MSRMP recognise and provide for the continuation and minor adjustments to existing marine farms, and while accepting that there may be adverse effects on the environment of those farms these effects should be remedied or mitigated.
- 3.72 Mr Heather finished by stating, that in his opinion, in this application that is encompassed by the MSRMP, that the proposal could not be said to be contrary to the objectives and policies contained therein.
- 3.73 It is clear for me as Commissioner determining this consent, the most important issue to be considered is whether the Adaptive Management Regime promoted by the applicants, adequately avoids, remedies or mitigates any adverse effects of the salmon farming activity on the existing environment. If so it can be said that the purpose of the Act is being achieved and the consent granted. This is a view shared by Mr Heather in his report.
- 3.74 In concluding the hearing Mr Fletcher, for the applicant company, summarised the case for granting of consent to this application and spoke to a number of matters raised by submitters during the course of the hearing. At the conclusion of the hearing I reserved my decision.
- 3.75 Matters concluded at 12.45 pm.

## 4 Assessment

- 4.1 In determining this application I wish to turn my thoughts firstly to the link between the greater discharge of fish feed and the environment effect of that discharge on the marine environment. In this particular case we have a marine farm licence which covers some 10.8 hectares. It should be noted here that the consent would currently allow for structures to be established in a greater area of that licence that currently exists than they do at present. This application seeks to limit the area occupied by structures to a total of 2.0 hectares over the current licensed area. I note here the Department of Conservation concurs with this course of action.



- 4.2 It was argued by the applicants that to limit the area available for structures to 2.0 hectares would be an advantage in terms of the area that would be affected by the discharge from the farm and to some degree I share this view. It certainly would seem to me preferable to limit the area affected to that which is currently modified or slightly increase that area rather than have an extended area, something similar to the 10.8 hectares of the marine farm licence.
- 4.3 In terms of the activities on the surface that may well be increased due to the increase in the area of structures and feed discharge. I accept that apart from increased vessel movements there would be little difference in terms of the amenity values of the bay. In terms of those increased vessel activities because of the situation of the farm to the entrance of the bay, I do not believe there would be a significant effect in terms of navigational traffic for the rest of the residents within the bay. I also consider the effect on the navigational safety, of other boating traffic, due to the proposed extension of the farm to be minor.
- 4.4 In terms of noise generated by the farm it is clear that the applicant company has a statutory responsibility to abide by the noise control standards as clearly set out in the Coastal Marine Zone of the Marlborough Sounds Resource Management Plan. If the company is unable to achieve those standards as set out in the Plan they must either cease operation or modify their management practices until they can do so. I note here the interest shown by submitters and local residents in the bay in the modification of some practices in the terms of water blasting is that the company is exploring on other salmon farms that it operates in the Sounds. I applaud and support those moves and trust they have a successful outcome.
- 4.5 While accepting there would be extra vehicle movements generated by this application I believe that the effects on the waters of Otanerau Bay and surrounding land would be no more than minor.
- 4.6 I acknowledge the economic benefits that New Zealand King Salmon Company brings, not only to the local Sounds economy, but also to the wider Marlborough and New Zealand economy. In employing over 350 full time staff and exporting some 60% of its produce, it is clear that the company makes a significant economic contribution to the local economy.
- 4.7 Having heard the evidence relating to the current farm practices and the effect that those practices have on the sea floor and surrounding bay environment I accept the evidence that this particular site is somewhat more degraded than the Company's Te Pangu Bay farm. This I conclude, from evidence, is because of the different type of current and tidal patterns which occur in Otanerau Bay. Having viewed the video evidence of Mr Grant Hopkins of the Cawthron Institute I agree that there is some modification to the species of marine animals and habitat on the sea floor under the farm.



- 4.8 Although some submitters expressed concern regarding the effect of discharge of this farm into the wider Marlborough Sounds environment I had no compelling evidence placed before me, that although there may well be an increase in nutrients level in the wider marine environment, the tidal flushing in this particular area of the Marlborough Sounds leads me to the conclusion that these effects would be no more than minor.
- 4.9 To ensure that the seabed environment does not deteriorate from its present condition under the farm, New Zealand King Salmon has proposed a technical Adaptive Management Regime. This is a regime that has already been sanctioned by the Environment Court in a number of cases. These include Kuku Mara Partnership (Forsyth Bay) v Marlborough District Council, reference ENVCW25/2002; Golden Bay Marine Farmers v Tasman District Council, reference ENVCW19/2003 and Clifford Bay Marine Farms Limited v Marlborough District Council as set out in Mr Fletcher's evidence.
- 4.10 The Court has obviously seen adaptive management regimes as a legitimate method of dealing with the uncertain environmental effects marine farming places on the marine environment. As such I propose to consider the application for such a regime in this particular consent as being worth pursuing. What the applicant proposes is a staged approach to the discharge and the assessment of the environmental effects beneath the farm and some distance beyond.
- 4.11 Initially discharges will be limited to a maximum of 3000 metric tonnes from September to November, following which, monitoring would be undertaken. The September and November period have been chosen because salmon stock reach peak biomass over this particular period of time. Providing monitoring and then the necessary review of conditions satisfies Council that the increase in discharge is giving rise to no more than minor adverse effects, A further discharge of 3500 metric tonnes is authorised. Here again, monitoring would take place and providing any adverse effects continued to be no more than minor, the final discharge of 4000 metric tonnes will be authorised. I agree with Mr Heather when he questions whether an adaptive management regime based on benthic survey and monitoring is practical where cages are to be moved. Hence it is my view that it is preferable to limit cages to an area already compromised or not extended any great distance so that the data collected from the monitoring programme has some consistency and long term basis.
- 4.12 Ongoing survey and review at the maximum level of 4000 metric tonnes would need to show that there is still no more than minor increase in effects for that level of discharge to continue.



4.13 It is my view that having heard and viewed the evidence relating to the condition of the sea floor below the farm and recognising the local current patterns in this particular part of the Marlborough Sounds that an Adaptive Management Regime would certainly appear to provide a cautious method of approach to managing the effects of the sensitive marine environment, that exists within Otanerau Bay and the wider Sounds.

4.14 One matter that I believe is relevant to this particular application and is touched on not only by the Resource Management Act itself but also the New Zealand Coastal Policy Statement is the issue of how development within the coastal marine zone of New Zealand should be managed. It is not envisaged by the Act or the New Zealand Coastal Policy Statement that there be no development in the coastal marine zone but rather that Zone be protected from inappropriate development and where development is to occur that it occur in areas that have already been compromised.

4.15 The New Zealand Coastal Policy Statement Policy 1.1.1 states:

*It is a national priority to preserve the natural character of the coastal environment by:*

*(a) encouraging appropriate subdivision, use or development in areas where the natural character has already been compromised and avoiding sprawling or sporadic subdivision, use or development in the coastal environment;"*

4.16 In this particular application there is already a salmon farm established on this site, that has been there for some number of years. It is accepted that there has been modification to the sea floor beneath the farm and to some degree a distance from it. I accept however that the proposed adaptive management regime in providing a staged a cautious approach to an increased level of discharged fish feed, will allow for the close monitoring of the effect of that increased discharge and therefore allow for a higher level of management ability to mitigate any adverse effects on the existing farm and surrounding environment.

4.17 Certainly the Marlborough Sounds Resource Management Plan has allowed for only limited marine farming areas within the Queen Charlotte Sound section of the Plan and I believe it is important to confine such activities to those areas that have already been identified within the Plan.

4.18 Having read all the submissions relating to this application and having heard the evidence provided at the hearing it is my conclusion that the approval of this application would not only ensure that the management benefits to the company as set out in their evidence and economic benefits to the Marlborough community as a whole, but also allows for a controlled cautious approach to increased feed discharge at the site. This controlled approach must ensure that there is no significant deterioration in the environment beneath the farm and also in the area covered by any new



structures or for that matter for some distance beyond. To achieve this there will need to be attached to this consent a number of conditions relating to the staging of the increased discharge of fish feed, environmental quality standards to be met within three zones of the cage and out to 50 metres of the cage, 50 metres to 150 metres from the outside edge of the cage and beyond 150 metres from the outside of the cage. Also the requirement to be met regarding environmental monitoring and reporting to ensure a higher level of credibility and results from the ongoing reporting.

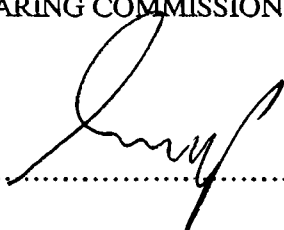
- 4.19 Finally I would like to note what appears to be a good work relationship between New Zealand King Salmon Company and residents within the bay. This situation is all too often missing with other enterprises within the community. Those responsible for bringing this about should be congratulated and encouraged to continue with such dialogue.

## 5 Decision

- 5.1 After considering all relevant evidence placed before me, I conclude that the application by New Zealand King Salmon Company for Resource Consent – Coastal Permit (Occupancy, Structures and Activity) – Discharge Permit (to water), at Otanerau Bay, Arapawa Island be GRANTED with the attached conditions.

NB: This replaces the occupation of the Coastal Marine Area previously authorised by Coastal Permits U050653 (anchorage area) and U010127 (structures).

MICHAEL G BRIGGS  
HEARING COMMISSIONER



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Dated: 22<sup>nd</sup> APRIL 2005



## Conditions of Consent U040217

### *Coastal Permit – (Occupancy & Activity)*

1. This consent shall expire on the 31 December 2024. (To align with the term of MFL446 as provided for under the Aquaculture Reform (Repeals and Transitional Provisions) Act 2004.)
2. The species to be grown on this farm shall be restricted to Salmon and Snapper.

### *Coastal Permit – (Structure)*

1. This consent shall expire on the 31 December 2024. (To align with the term of MFL446 as provided for under the Aquaculture Reform (Repeals and Transitional Provisions) Act 2004).
2. Cages will be restricted to within a clearly defined 2 hectare area (plan attached).
3. The (currently consented) ability to move cages within the total farm area is hereby withdrawn.
4. No expansions on the current cage layout will be in a landward direction.
5. Prior to any expansion of cages, NZKS will carry out a qualitative survey (e.g. a video transect) to document the nature of the seabed and to confirm that no significant ecological features are present.
6. That the placement of marine farm lighting and marking shall be approved by the Harbourmaster under his Maritime Delegation from the Director of Maritime Safety pursuant to Sections 200, 444(2) and 444(4) of the Maritime Transport Act 1994. The approved lighting plan is attached.

### *Coastal Permit – (Discharge to Seawater))*

1. This consent shall expire on the 31 December 2024. (To align with the term of MFL446 as provided for under the Aquaculture Reform (Repeals and Transitional Provisions) Act 2004).
2. Only extruded pellets or similar shall be fed at the marine farm.

### **STAGING OF DISCHARGE VOLUMES**

#### **STAGE 1**

3. For the first 1 year of the operation of this consent the maximum volume of feed to be discharged shall be 3500 metric tonnes per annum.
4. Within the period September to November after commencing discharge at the 3500 metric tonnes per annum maximum specified above, the consent holder shall monitor the sea floor in accordance with the environmental monitoring programme to be agreed, as specified under conditions 15 to 20.



5. A full report detailing the state of the sea floor shall be submitted to the Council within 3 months of the monitoring being completed.
6. On receipt of the monitoring report, the Council shall if necessary, within 1 month, initiate a review of the conditions of this consent, including the maximum volumes to be discharged, in accordance with Sections 128 and 129 of the Resource Management Act 1991, and as further specified under condition 23.

**STAGE 2**

7. Following receipt by Council of the monitoring report specified under stage 1 above and subject to any review of conditions of this consent specified in condition 23, the consent holder may for the following year discharge a maximum of 4000 metric tonnes per annum.
8. In the period September to November following commencement of discharge at the 4000 metric tonnes per annum maximum the consent holder shall prepare a monitoring report on the state of the seabed using the environmental quality standards and the environment monitoring and reporting requirements specified in conditions 12 to 20 of this consent.
9. This report shall be submitted to Council within 3 months of completion.
10. Within 1 month of receipt of the report, Council shall review the conditions of this consent, including the maximum volumes to be discharged in accordance with condition 23.

**IMPLEMENTATION OF STAGES AND DISCHARGE VOLUMES**

11. For the avoidance of doubt in interpreting the above conditions, there shall be a review of conditions prior to each of the above stages where monitoring indicates the development may give rise to adverse effects on the environment. The consent holder shall not increase the discharge of feed until the Council confirms that the subject stages are not individually or cumulatively creating any adverse effects.
12. Should the consent holder not discharge feed to the maximum volume permitted under any stage, then the increase in feed permitted within the next stage shall be 500MT above the maximum feed volume discharged under the previous stage.

**ENVIRONMENTAL QUALITY STANDARDS**

13. The environmental quality standards (EQS) that shall be applied for seabed effects follow the model as presented in the application i.e. seabed effects are 'zoned' around the cages to allow for a mixing or transition zone. Outside this zone no adverse effect on the seabed is allowed. Three 'zones' under and around the marine farm shall be established as follows:
  - a. Referred to as 'Zone 1' – Beneath the cages and out to 50 m from the cages.



- b. Referred to as 'Zone 2' - From 50 m to 150 m from the outside edge of the cages.
- c. Referred to as 'Zone 3' - Beyond 150 m from the outside edge of the cages.

14. The zones may be distorted to allow for the action of tidal currents such that the total area of each zone remains the same as if concentric zones were around the marine farm.

15. In this instance it is anticipated that the zones will be distorted to the North Coast as shown in B below.

Figure 4: Schematic diagram of the impact zones concept.

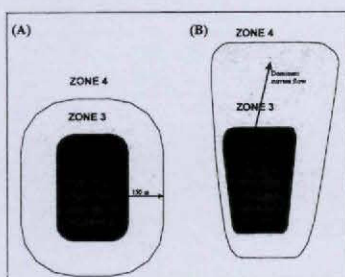
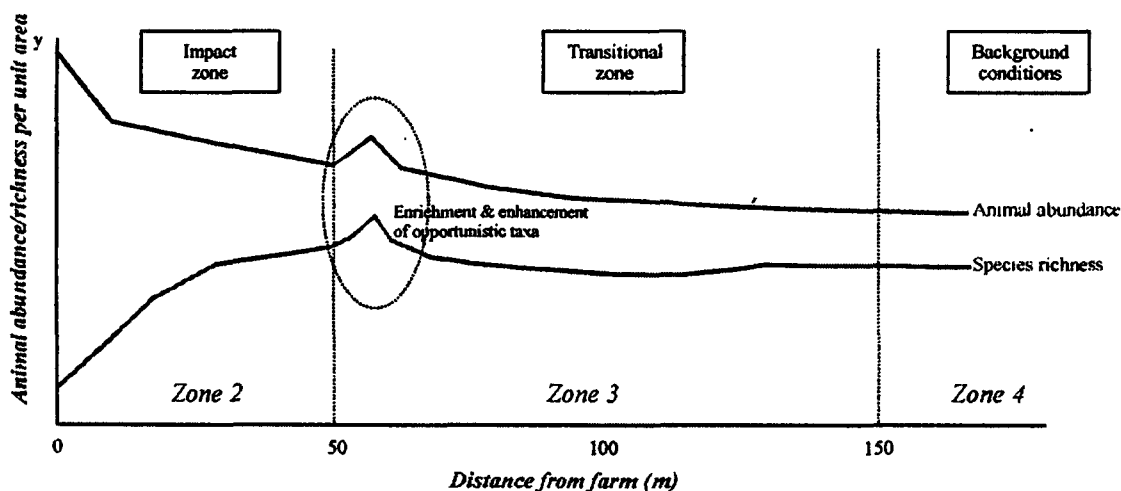


Figure 5: (A) Conceptual approach to defining seabed impact zones for NZKS salmon farm sites. (B) A proposed method for adapting the impact zones to the environmental conditions at the Otanerau Bay salmon farm site. Note that the areas of Zone 2 and 3 are the same in both A and B.

16. The EQS in each zone is as follows:

Zone	Spatial Extent	Description and Bottom Line
1	Beneath the cages and out to 50 m from their outside edge	Sediments become highly impacted and contain low species diversity, dominated by opportunistic taxa (e.g. polychaetes, nematodes). It is expected that a gradient will exist within this zone, with higher impacts present directly beneath the cages.
2	From 50 m to 150 m from the outside edge of the cages	A transitional zone between zones 2 and 4. Within this zone, some enrichment and enhancement of opportunistic species may occur, however species diversity remains high with no displacement of functional groups. It is expected that a gradient will also exist within this zone.
3	Beyond 150 m from the outside edge of the cages	Normal conditions (i.e. background or control conditions).
All Zones	These conditions are not permitted beneath any NZKS farm	Sediments that are anoxic and azoic (i.e. no life present) will not be permitted.



**ENVIRONMENTAL MONITORING AND REPORTING**

17. Prior to exercising the consent, the consent holder shall prepare an environmental monitoring programme to show compliance with the Environmental Quality Standards set out in conditions 12 to 16 of this consent.
18. This monitoring programme shall be submitted to the Council for approval and shall address, but not be limited to, the following effects within the boundary of the marine farm and in the immediate vicinity beyond the boundary of the marine farm:
  - a. effects on water quality;
  - b. seabed deposition (sedimentation and crop loss) and oxygen depletion; and
  - c. effects on benthic community composition and abundance.
19. The survey/monitoring programme shall describe:
  - a. the surveys, baseline and/or ongoing, to be undertaken;
  - b. location and extent of environmental features within the vicinity and potential impacts on these features;
    - specifically in this instance particular attention shall be given to Brachiopods and also the reef to the North;
  - c. the environmental performance indicators that are to be used to assess effects;
  - d. methods, location and frequency of sampling, including reference sites;
  - e. a definition of species diversity and what comprises the transitional zone; and
  - f. recording and reporting requirements.

**ONGOING ANNUAL MONITORING**

20. A monitoring report is to be prepared at least annually, and will include:
- a. a description of the types, location and area of structures within the 2 hectare authorised area and a description of any movement or relocation of structures over the previous year;
  - b. presentation of monitoring results;
  - c. a comprehensive and integrated report on the effects of the development and operation of the farm to date, including maximum biomass of fish and feed volumes discharged over that year;
  - d. an assessment as to whether or not the farm is having a significant adverse effect on the environment or not;
  - e. recommendations as to how any adverse effects on the environment can be avoided, remedied or mitigated; and
  - f. the adequacy of the monitoring programme. NB: The monitoring programme shall be public record.
21. The consent holder shall commission an independent person (or persons) with appropriate expertise in environmental monitoring to undertake the monitoring and reporting work required by the conditions of this consent.
22. The Council may require an independent peer review of the surveys, monitoring and reporting required under conditions 15 to 20 above. Such a peer review will be at the cost of the consent holder.



23. That in accordance with sections 128 and 129 of the Resource Management Act 1991, the consent authority may review the conditions of this consent by serving notice of its intention to do so for one or more of the following purposes:

PURPOSE(S)	TIME(S) OF SERVICE OF NOTICE
To modify the monitoring programme.	Within 2 months of receipt of any monitoring report as required by the conditions of this consent.
To deal with any adverse effects that may become apparent as a result of the exercise of this resource consent.	<p>Within 2 months of receipt of the monitoring report required by conditions 4 and 5 of this consent (Stage 1).</p> <p>Within 2 months of receipt of the monitoring report required by conditions 8 and 9 of this consent (Stage 2).</p> <p>Within 6 months of receipt of any other monitoring report required under the conditions of this consent.</p>
To require the consent holder to adopt the best practicable option to avoid, remedy or mitigate any adverse effect on the environment relating to the activity.	<p>Within 2 months of receipt of the monitoring report required by conditions 4 and 5 of this consent (Stage 1).</p> <p>Within 2 months of receipt of the monitoring report required by conditions 8 and 9 of this consent (Stage 2).</p> <p>Within 6 months of receipt of any other monitoring report required under the conditions of this consent.</p>

24. Pursuant to section 36 of the Resource Management Act 1991 and Marlborough District Council's Schedule of Fees, the consent holder shall pay all actual and reasonable costs associated with any review of this resource consent.

25. Inspection and monitoring by Council's Resource Management and Regulatory Department in respect of the conditions of this consent may take place annually or more frequently in the event that a previous inspection or complaint indicates the need for more frequent inspection and monitoring.

The costs of these inspections and any formal monitoring programme established in consultation with the Consent Holder will be charged to the Consent Holder in accordance with Council's Schedule of Fees approved pursuant to section 36 of Resource Management Act 1991.

**Footnote**

*This consent authorises the occupation of the coastal marine area for the purpose of an aquaculture activity in respect of (inter alia) that area where occupation was previously authorised by coastal permit [U950653]. Notwithstanding the grant of this permit the consent holder may not commence nor undertake an aquaculture activity within that area previously authorised pursuant to coastal permit [U950653] until such time as the consent holder shall have complied with the requirements of Section 20/21 Aquaculture Reform (Repeals and Transitional Provisions) Act 2004 and Section 12A Resource Management Act 1991.*

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## ANNOTATION HISTORY

<b>Date</b>	<b>Reason for Amendment/Alteration</b>
28/11/2007	To vary and review the conditions of coastal permit pertaining to occupancy, activity and structures.





## Marine Farm Lighting and Marking Plan – U040217

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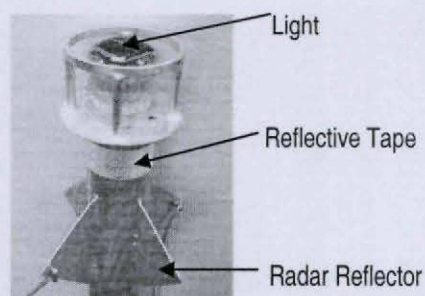
I, Alexander van Wijngaarden, Harbourmaster of Marlborough District Council, hereby approve the lighting and marking associated with coastal permit U040217, located in Otanerau Bay, Queen Charlotte Sound as follows:

1. That a yellow light and a band of reflective tape 50 millimetres in width be displayed in the positions marked 'A' on the attached structures plan. The lights shall be solar powered and shall have the following characteristics:

**Flash:** Group flashing 5 every 20 seconds. Length of flashes no less than 1 second. Interval between flashes, no less than 1 second.

**Range:** At least 1 nautical miles.

**Height:** Greater than 2.0 metres above the surface of the water.



2. That a specific approval will be required if the structures configuration within the authorised 2 hectare area alters from that shown on the attached plan.

Given under my hand this 12<sup>th</sup> day of May 2005

ALEXANDER VAN WIJNGAARDEN

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 DISTRICT COUNCIL

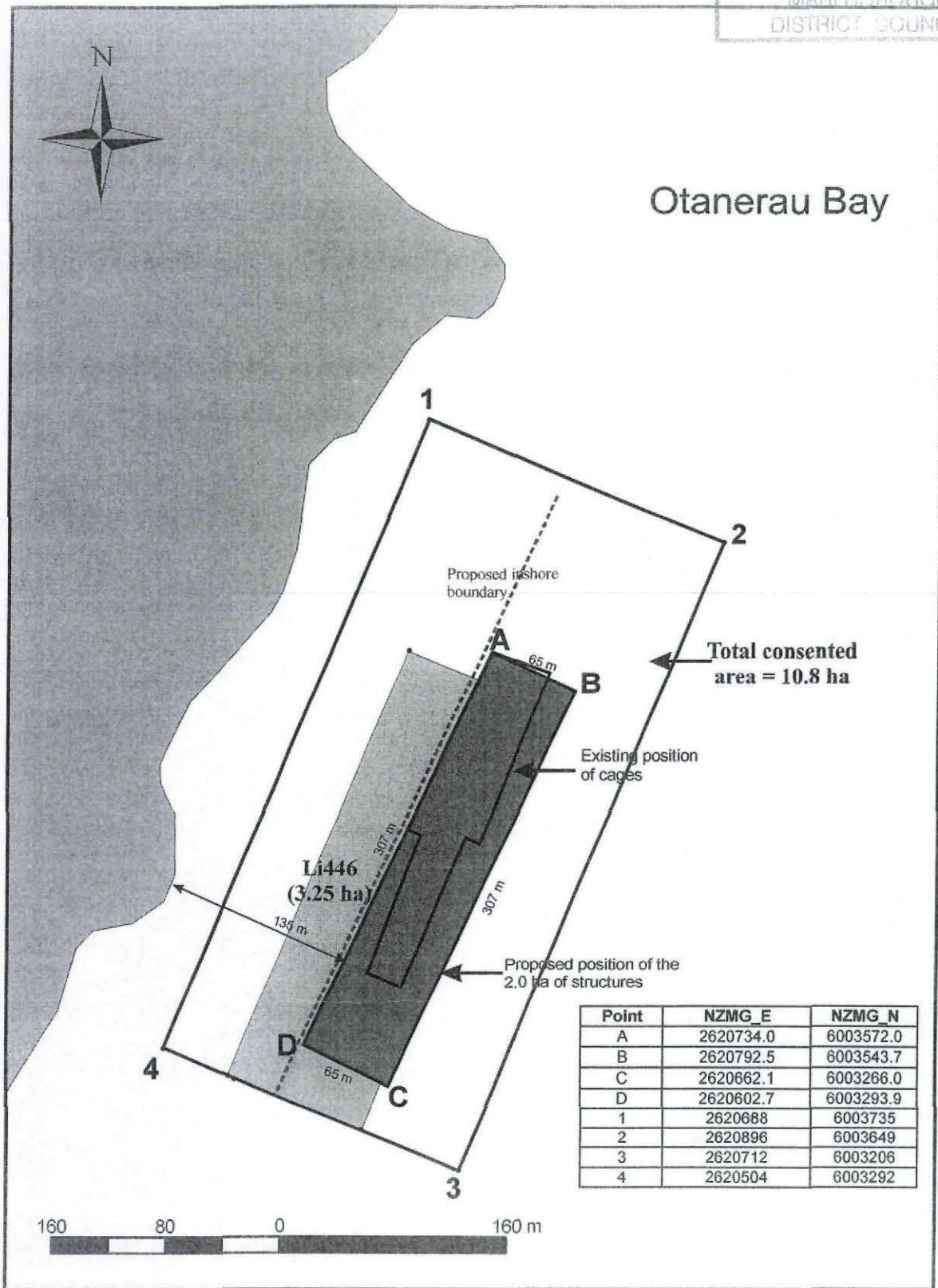


Figure 1: Proposed layout of the Otanerau Bay salmon farm (2.0), showing the present position of the farm.

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21 FEB 2005

MARLBOROUGH DISTRICT COUNCIL

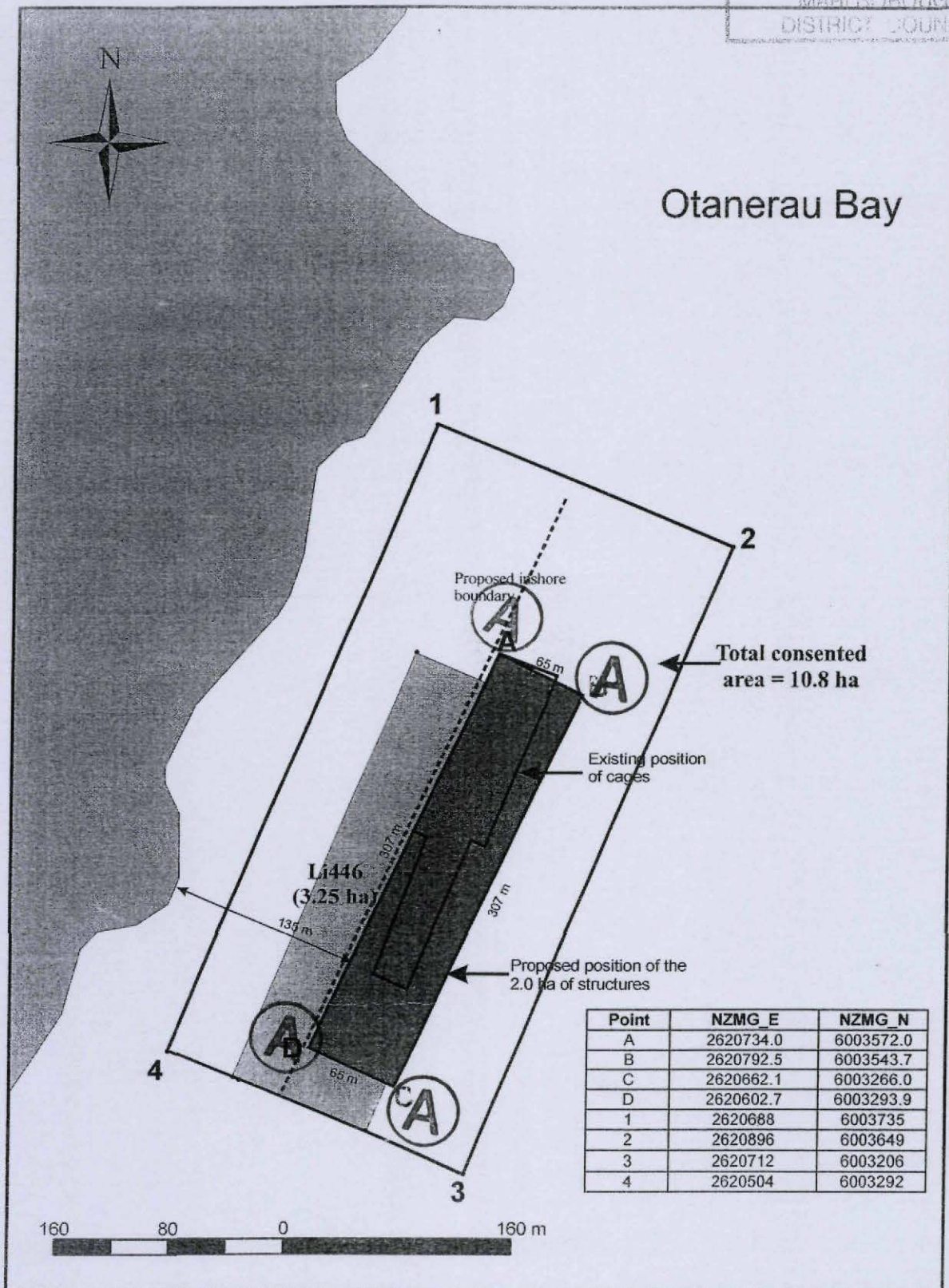


Figure 1: Proposed layout of the Otanerau Bay salmon farm (2.0), showing the present position of the farm.

*A*

*h*