
TRANSCRIPT OF PROCEEDINGS

**MARLBOROUGH SALMON RELOCATION ADVISORY PANEL
PUBLIC HEARING**

**HELD AT
MARLBOROUGH CONVENTION CENTRE,
42A ALFRED ST, BLENHEIM,
ON 19 APRIL 2017**

Appointed Panel Members:
Professor Peter Skelton, CNZM (Chairperson)
Mr Ron Crosby
Mr Alan Dormer, MNZM

[9.00 am]

CHAIRPERSON: Good morning, everybody. This hearing of the Marlborough Salmon Relocation Advisory Panel is resumed and we're going to hear now
5 from Mr Gillard.

MR GILLARD: Thank you, sir. Just before I begin, there was a couple of issues I
10 wouldn't mind bringing up that I haven't covered off in my written submission. What I propose to do with mine, I'll just read it and there's some pretty pictures I'll put up on the screen there just to demonstrate some of the points I'm going to be talking about.

Before I begin though, Mr Crosby brought up a point yesterday about the Tangata Whenua Panel, whether that would be helpful if I gave my
15 brief overview. I haven't prepared anything for it. I'm just off the cuff at the moment.

CHAIRPERSON: Yes. That's the one already in existence.

MR GILLARD: Yes, it is. It only applies to the two EPA sites in Pelorus. It's a Panel
20 that was voluntarily set up. It's wasn't obligatory on the parties to set it up. We, as a company, were to offer it to Ngāti Kōata and Ngāti Kuia to participate in that, so they've taken that up. We have an agreement with them. We fund it. They were involved in working through some
25 of the issues on the baseline monitoring and also in preparation of what we call the MEMP, the Marine Environmental Management Plan. Subsequently, yearly, we allow them input for that plan which is updated annually and they also receive copy of the monitoring reports.

However, it does not apply to the site that was granted in Tory Channel
30 for obvious reasons, different iwi altogether. That equivalence is taken up by one of the members on the Peer Review Panel that was set up, the three members. One of those, Shaun Ogilvie, was recommended by Te Ātiawa and carries out that function for them as part of the Peer
35 Review Panel.

MR CROSBY: The members on that Tangata Whenua Panel, Mr Gillard, are?

MR GILLARD: Yes. There's Frank Hippolite from Ngāti Kōata. It did have Matt
40 Hippolite as well but he subsequently moved to DOC. I'm not sure who they've replaced him with, and then from Kuia side, there's a Billy, I can't remember his surname, but also Raymond Smith.

MR CROSBY: Right, okay, thank you.
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- MR GILLARD: There was one other point, if you don't mind. You had a discussion with the Clarks last week about Marine Farm Licence 32 and I think Mr Dormer commented on you don't take off rights from people. My point is that, through this process, they're proposing to remove the opportunity for future fin fish farming on that site from him, or from them, that they don't have the right to apply from what they can right now. We take the consent away, which is a King Salmon consent. However, they're also not able to apply as of right, as they currently are able to do, for a new consent which would be treated on its own merit.
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- CHAIRPERSON: For fin fishing.
- MR GILLARD: Yes, fin fishing.
- 15 CHAIRPERSON: They have a mussel farm or something, do they?
- MR GILLARD: Yes.
- CHAIRPERSON: Is that what they were concerned about?
- 20 MR CROSBY: They were concerned about the fin fishing part.
- CHAIRPERSON: They were too, weren't they?
- 25 MR GILLARD: Yes, they were. That's why I bring it up. I've had discussions with Graeme about it.
- MR DORMER: You're saying they can apply now?
- 30 MR GILLARD: Yes. There's nothing to stop them that I understand from applying, just like I could or anybody else.
- MR DORMER: Why won't they be able to apply in the future?
- 35 MR GILLARD: If this process, as proposed, goes through, it would be prohibited to have fin fish farming on their particular mussel farm site. It's quite a distinction.
- MR CROSBY: What you're saying is that they've got an avenue of time now if they're prepared to make an application to do so.
- 40
- MR GILLARD: Yes. It's up to them. If they want to make an application, they shouldn't be prohibited from making that application. That's my personal view. That's not the King Salmon; I'm talking my own personal perspective.
- 45
- MR CROSBY: No, right.
- CHAIRPERSON: Thank you for that information, Mr Gillard. We'll continue.

MR GILLARD: Right. I propose to read through this. If there's anything you feel I could skip over, let me know, otherwise I propose just to read it verbatim.

5

My name is Mark John Gillard. I'm the Sustainability Manager for the New Zealand King Salmon Company. I've been employed by the company for over 31 years. I have a Bachelor of Science and Geology from Auckland University and I also take that my submission and that of King Salmon have been read but I also note that I have included some of it in this presentation.

10

I began in the salmon industry over 37 years ago. My first job was running an ocean ranching development project on the Clutha River for ICI and Wattie Industries. That's where I began to see a future for salmon production in New Zealand and it was during this time that net pen farming began at Stewart Island. It was seat of the pants stuff. There were only a few textbooks to learn from on how to look after salmon.

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I had a range of roles within New Zealand King Salmon from hands on salmon farming, designing and building salmon hatcheries and marine farms, managing freshwater farms and now looking after legislative and political matters for the company. I also note that I am not a lawyer, I'm not a landscape architect and I'm not a planner. I'm not an expert in any of those.

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MR DORMER: And your evidence is all the more valuable.

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MR GILLARD: Thank you. Prior to salmon farming, I was involved in the wild eel industry in various roles for five years. I've made a career in the salmon industry. It has provided for myself, my wife and now two grown-up children. Both of our children went to the French Pass School, which is now closed. I was on the first board of governors for that school and our daughter went to Marlborough Girls College for a couple of years as a boarder, then Nayland College in Nelson when I was transferred to New Zealand King Salmon's office in 1994. Our son went to Broadgreen Intermediate, then Nayland College also.

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I have a relatively intimate knowledge of the Marlborough Sounds, having spent time living, boating, diving and driving in the area as part of my employment and private life. As you can see, we've been part of the sounds in the northern South Island community for a large number of years. It would not have been if it was not for the salmon industry. Our son works for King Salmon in the processing plant in Nelson and he relies on that job and is dedicated to the company. Our daughter also worked there during her varsity holidays.

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5 I chaired the New Zealand Salmon Farmers Association for over 17 years and was a founding member and director of Aquaculture New Zealand. I was deputy chair for a number of years. I've contributed to a service organisation having been a member of Rotary International in Balclutha and in Nelson and I was president for one year. I am also on the board of the Sport Fishing for Youth Charitable Trust in Nelson. I have whakapapa back to the Māori first canoe, the Tainui canoe and I'm Ngāti Raukawa.

10 I'm indebted to the industry for providing me with a career that enabled me to get paid work without feeling that I was actually working, at least for a significant amount of time. The industry is so interesting and challenging that it gets in your blood and I'd recommend it to anyone.

15 I came to the sounds in 1985 to run a pilot scale salmon farm. In those days, we really didn't know whether salmon farming would be successful but have now proven beyond a doubt that it can be. Those early days were a very steep learning curve for everyone in the industry. Handling large salmon in seawater is not easy and it was easy to kill fish, and I can assure you we killed quite a few.

20 Seawater introductions could not be assumed to follow on from what occurred in ocean ranching, nor could fish handling. Smelt size and time of year were more critical when taking small fish from fresh to salt and expecting them to survive over the summer. They didn't survive well but it was a lesson learnt.

25 My family and I were based in Hallam Cover in the Outer Pelorus where we first started marine salmon farming. As we know now, that area has its problems for salmon farming especially over the warm summer months and with its relative low flows and shallow depth.

30 There's a photo of our first pens and the first farm up there. It looks quite large but really we were probably only producing up to 100 tonne in those days. We thought it was huge but, in fact, it was quite tiny.

35 We began farming hands on with small pens supported on mussel floats with nets made by the locals, including my wife, on the tennis court in front of our house. Nets were changed by hand and manually water blasted away from the pens on a regular basis.

5 I've also tried sockeye salmon farming and experimented with Atlantic
salmon while in Hallam Cove. Sockeye are really nice fish to farm.
They're fairly docile compared to kings but they have a major problem.
They were very susceptible to sea lice. It was also impossible to
10 achieve the deep red sockeye flesh colour expected by the market. The
very small trial of Atlantic salmon using a narrow gene pool derived
from freshwater stock found in the southern lakes was unsuccessful. I
have some really vivid memories in those early days in Hallam Cove
and they say, as you get older, the better your long-term memory gets
and the worse your short-term memory becomes.

15 Some of my early recollections are of diving in the salmon pens to
check for holes and to collect dead fish. On at least one of those dives,
I was able to handfeed very large, wild kingfish by pushing pilchards
through the mesh from the inside. On another dive, I was outside the
pens. The water was so clear, it was like diving in a fish tank and there
were large numbers of snapper of various size around the pen
seemingly oblivious to me.

20 On another occasion, I was very closely buzzed by a rather large bronze
whaler shark. Bronze whalers were a problem as, annually, they would
move into the Inner Sounds to breed and take a liking to the bottom of
our net pens; that is until we fitted false floors that kept the sharks at
25 bay. Seals were not a problem in those days. For many years, we were
lucky to see even one. The seals were so timid back then that they were
chased away with the dinghy.

30 I also have some not so pleasant memories such as when we
experienced an algae bloom in around 1989 that killed over 30 per cent
of our fish. This is roughly the same time as the large bloom that
caused many millions of dollars of losses in Big Glory Bay in Stewart
Island. It was about the same time as Cyclone Bola.

35 We were only growing a small volume but removing those fish from
pens manually was a real test of our staying power. I can recall
standing in the bottom of a net pen on scuba with dead and dying fish
up to my chest and they were still raining down.

40 We eventually surmised it was an algae called heterosigma, the same
as in Big Glory Bay, that was moving through the farm each time the
tide changed. Wearing a wetsuit that has been in dead fish all day for
a period of several weeks was not pleasant.

45 Our original pens were relatively cheap and very functional but they
could not withstand rough conditions. Each time there was a strong
southerly blow, we would have to get the arc welder out to repair the
cracked and broken pipework. Electricity and saltwater are an
interesting combination.

5 Compare those humble beginnings to today. We've come a very long way. The industry is now extremely sophisticated across a range of technologies and management processes. The investment in structures and growing fish is huge compared to those early days but as with all primary industries, the risks remain much the same. People are surprised when they visit our facilities as to just how advanced we are in all we do, including environmental management, especially compared to other industries.

10 The New Zealand salmon industry has transformed from its humble beginnings into a world-class industry. If the Panel have a mind to understand some of the history behind the industry, can I suggest they read "Swimming Upstream" by Jenny Hawarth? This is a book commissioned by the Salmon Farmers Association to record its growing pains and gains. We're able to provide a copy of this. I can recommend that if you are of a mind. If you want a copy outside of this process even, you can give me a call and I could send you one. It's well worth a read.

20 In the 1980s, the first salmon sea farms were developed in New Zealand, including the Marlborough Sounds. In 1989, the first move to the Outer Sounds began with the farms in Hallam Cove moving to Waihinau Bay. That was the first move we took. The early pens that you saw in that first slide, we took them out to Waihinau Bay. You can see the old ten by tens on the left there and the next variant is on the right-hand side there, big steel pipe nets that I'll talk about in a minute.

30 Subsequently, farms were established in Port Ligar and Forsyth Bay in the Pelorus and in Otanerau Bay in the Queen Charlotte Sound. Higher flows at the time were treated warily as mooring design and pen structures were not designed for higher flows.

35 The Te Pangu farm was first used in 1990 under an experimental licence. In 1992, it was granted a full licence but it was difficult to moor the farm safely, so it was not until 1994 that the farm was established permanently. In March 2006, it broke its moorings and drifted into Tory Channel. It was later safely relocated back on to the Te Pangu site with a considerably upgraded and secure mooring system. We learnt a lot from that episode and now with our engineers and mooring installers, have a world class system coping easily with higher flow conditions.

45 **[9.15 am]**

The next farm to move into higher flows was Clay Point in 2007 using the improved mooring system. Subsequently, the three higher flow EPO sites were granted and are now growing fish.

5 New Zealand King Salmon has clearly demonstrated that we're moving to areas with better rearing conditions for our fish since the industry began. This relocation proposal is a continuation of a process begun in the 1980s when it was realised that the early acquired sites were not ideal for farming. Many of those early sites have been abandoned for salmon farming, such as Kenepuru and Hallam Cove.

10 Now I'll go through a list of evolutionary improvements that was made on our farms. The industry's progress hasn't been without its difficulties and, as with most primary production, it has had its moments. In those early days, we suffered from high summer mortalities, poor fish performance and high maturation of our stocks. Today, those issues have been predominately addressed and we're able to produce year-round supply of relatively even-sized, high quality fish fetching very good prices, as you heard yesterday from some of our presenters.

20 Some hard lessons have been learnt. How to manage warmer summer periods; how to manage the farms as a whole rather than individually; how to reduce maturation so it is no longer significant and to understand what is required in a salmon site for it to be environmentally, socially and economically a good site.

25 The last 30 years have bought us a long way. We have significantly improved what we know about our king salmon species and how we farm our fish in that period.

30 The first fairly rudimentary salmon pens were established in 1984 at Hallam Cove and at Ruakaka. Those I was working with were made from small galvanised pipe frame pens, ten by six and then ten by ten supported on mussel floats with wooden walkways. Net pens have improved in design and size over the years to progressively larger pens of 20 by 20, through to the current 40 by 40 metre at Ngamahau which are made from spirally welded steel pipe pontoons.

40 Our wavemaster pens, of which there's a photograph on the screen there, are also 40 by 40 but are flexible steel platforms supported on floats that are divided into sections to allow for wave actions. Plastic circles are commonly used in other parts of the world for farming salmon. They're ideal for locations that are more exposed, such as the proposed Outer Pelorus locations, and are less visually intrusive.

5 We inherited some rather poor, small, plastic circle pens when we purchased the Crail Bay sites. These were subsequently decommissioned and either given away or sold. We have not had any circle pens for a number of years. As a matter of interest, the proposed Blow Hole Point north location is probably the most exposed site for salmon farming in New Zealand. Although protected from most directions and from the worst weather, it is fully exposed to the northeast.

10 This relocation proposal includes a recommendation for 78 metre diameter plastic circle pens as used by Huon in Tasmania to be used for the Outer Pelorus sites. There's a photograph up there of one. They're approximately 78 metres in diameter and 240 metres in circumference.

15 Through the adoption of dark, recessive colours and lower profiles, salmon farms blend more readily into the Marlborough Sounds background. More recent conditions, including those from the EPA process, identified that farms should adopt these characteristics, although this is in conflict with the navigational requirements of the harbourmaster. That's a bit of a conundrum really because, on the one hand, you want them to be fluorescent and all the bells and whistles and lights and on the other, from a landscape perspective, you want them hidden. That is quite a fine line to walk there I'd say.

25 I've heard from some landscape experts that the farms should be well engineered, planned and look as though they're meant to be there. The proposed farms will be next generation from those replaced. They will have all of the characteristics identified above, and you heard yesterday that we won't be relocating our older pens on to these sites. They are incapable of coping with the conditions for various reasons; lack of buoyancy, structural strength and a range of other things.

30 Harvest. The first harvests were literally by hand and numbered a few hundred fish using a dip net into an ice slurry. The harvest process is now very efficient using large pumps, and you can see on an earlier shot on that there the number of people we've got just harvesting a few fish in the early days and then we move through to this type of equipment and large fish pump on the left and automatic stunning machine on the right; quite sophisticated. We're currently harvesting approximately 7,000 to 8,000 fish per day, growing to 10,000 fish per day over the next couple of years.

Another recent improvement is that of large road tankers that carry chilled harvest fish in bulk. Compare that to the very large numbers of insulated bins we previously used and are currently phasing out. I recall I calculated that each one of those small bins was moved by forklift approximately 15 times in a round trip, so it was quite horrendous and they suffered quite a bit of damage as well; a lot of maintenance required on those. So when you look at these pretty sophisticated pieces of equipment there that does the same job, they just hook a truck up to the front of that and tow it away directly to the factory.

My first vessel in Hallam Cove was a 3.4 metre Parker Craft dingy and feeding was conducted by hand using half a granola scoop from 30-kilo bags. Really difficult. I'm still suffering RSI from that, I'm sure I am. Feeding is now very sophisticated with cameras, computers and blowers. Feeding on farms is remotely carried out on some locations through the use of wireless technology. Feed is the largest expense for the company. Feed type has changed since we started feeding from pressed pellets to now using the more digestible and less wasteful extruded pellets. Increased substitution of marine-origin raw material with land and animal based products is now the norm in order to lessen the demand on marine fisheries. However, a certain level of marine content is still required in the diet to suit nutritional requirements.

Over more recent years we've had huge problems with seals. We went through a lot of evolution. We've carted them down to the west coast and they've been back within two to three days. We've sent them down the east coast; the same. We've tried a whole range of things. We've tried sonic deterrents. We've tried seal scarers. We've tried everything and now we've ended up with using predator nets. Diagrammatically on the screen there, it's really just a net that completely surrounds the whole farm. Within that there's the grower nets.

These are also continually evolving to keep seals from accessing the farms. They completely surround each farm. Many of the other options, as I've said, have been tried and I've also mentioned earlier the use of false floors that we had in Hallam Cove.

Netting. Early nets were relatively simple in design and manufacture. I even designed some myself. Today our nets are very large; up to 40 x 40 metres, made in commercial premises and attached to computer-designed, sophisticated state-of-the-art steel structures. We also manufacture some nets in-house in Picton.

A new net material has been recently introduced on a farm in Tory Channel that will enable faster net cleaning due to the use of different materials. In addition, the company is gradually phasing in black nets in place of traditional white nets as one of the measures to make them less visible.

5 Net cleaning is one of the major tasks on the farm on a day-to-day basis. Salmon nets are an ideal growing area for bio-fouling organisms. If left, they can become so bad that water flow is reduced and extreme weight is placed on the floating structures. Net cleaning began with manual net changes and above-water, high-pressure water blasting. That process is all but phased out now and we use in-water net cleaning with remotely controlled or automatic pressure washing. This enables more regular cleaning of nets and reduces the labour required. New Zealand King Salmon no longer uses anti-fouling material in its nets. That's quite a major development for the salmon industry. It also, because we don't need to move the fish from the nets when they're being cleaned, it means we have more efficient use of our facilities as well, which is a major improvement.

15 CHAIRPERSON: So you clean the nets with the fish in them?

MR GILLARD: Yes. They've got cameras and all sorts of things and you steer them around from on the surface. I think Mark might be going to talk about that. Mark Preece will talk about that a little bit later, on how that works. It's quite impressive, actually. It gives a view of the net, whether there's holes, and how your fish are performing. All sorts of things, yes. It's great.

25 Moorings. Mooring technology has improved considerably. The company first started using mussel farm technology using large, wedge-shaped concrete blocks, ground change and mooring rope. These had a tendency to drag across the sea floor. In 2006, as I've already mentioned, the Te Pangu farm broke its moorings. We've learned a huge amount from that exercise such as now, along with the engineers and installers, we have a virtually bullet-proof mooring system now sought after in other countries.

35 There's a shot up there of the screw anchor. That's hydraulically driven into the rock or the soft sediment. That top piece drops off and there's an attachment directly to that plate and that's your mooring. You'd hold the Queen Mary on that.

40 All moorings are now well-tested using screw-anchor technology with appropriate management processes for monitoring and management. The moorings have a safety factor of five. Included in the higher flow farms is a requirement to monitor the mooring load and the use of load cells. All of this is a significant improvement in the safety and security of our marine farms.

45 CHAIRPERSON: What does a safety factor of five mean?

MR GILLARD: The breaking load is five times what that's rated at.

CHAIRPERSON: Breaking load is five times --

5 MR GILLARD: So what they do is they test these, they hook a winch on to it and they pull it and pull it and pull it until they break it and then the safety factor load that is then measured on each of those moorings, is one-fifth of that. Does that make sense?

CHAIRPERSON: You said the breaking load is five times -- what?

10 MR GILLARD: The breaking -- when it breaks, that reading is five times the load that is normally expected on that mooring. So there's a five-fold factor of safety in each of those.

15 CHAIRPERSON: Is that five times the design load or something, is it?

MR GILLARD: Yes, I don't know the correct terminology of that.

MR CROSBY: Can you just explain that load cells?

20 MR GILLARD: The load cell? Yes, they're actually in the King Salmon original submission that we put in, there's a photograph -- I meant to put it on here, too. It's a load cell that measures the strain on the moorings and we move those around our farms to determine whether there's any change in loadings and whether it's a safe load and then we can
25 download that into a computer and graph it and see what's happening across the tidal cycles and the lunar cycles.

MR CROSBY: All right. Thank you.

30 MR GILLARD: Underwater lights. You've seen this before and I think Mark might be going to address it as well. Salmon use day length to trigger maturation, using lights as is done in fresh water to synchronise maturation. The fish can be reared without the natural photo period trigger. The use of underwater lights has proven a major advantage in
35 that maturation is significantly been reduced from 50 per cent to currently less than 5 per cent, allowing a harvest of a larger number of fish and a consistent year-round supply. The company is continuing to commission these across all of its sites.

40 We've recently acquired a remotely controlled vehicle, an ROV, and it's now enabling in-water investigation of the farms, fish and the benthocodon environment without divers; a better solution from a health and safety perspective but also for more regular monitoring at a lower cost.

5 Remediation. This will probably come up in the future discussions with some of the submitters coming through later on. New Zealand King Salmon, together with Sanford and Ngāi Tahu contracted Cawthron to carry out a small-scale trial on seabed remediation on its Forsyth salmon site. Council does have a copy of that report. Several different techniques were trialled with moderate to limited success; the most promising being to move the organic layer.

10 However, the trial was only small scale and expanding to a full commercial trial is not without its problems and with many unanswered questions such as what equipment, how to store liquid extracted substrata, how to best treat the waste and what to do with it. The risks are significant and the merits debatable when compared against the natural recovery process which has been demonstrated on the same site. That
15 natural process demonstrated that the Forsyth site was fully functional after a couple of years and fully recovered after nine.

[9.30 am]

20 Cawthron has prepared a follow-up proposal to the earlier Forsyth trial. This will be on a semi-commercial scale and will also involve other industry participants. New Zealand King Salmon has been involved in preparing that proposal to Seafood Innovations who will contribute to the funding. It is our opinion that it is better to allow for self-remediation until such time it is clearly demonstrated there is a risk-free alternate strategy.
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30 King Shags. You'll hear a lot about this coming up. The last thing we want to be accused of is contributing to the demise of the King Shag. We currently have conditions on the two sites in Pelorus, Te Pangu and Waitata, granted through the EPA process that includes a King Shag Management Plan. That management plan includes obligations to survey, what to do in the event there is a statistically significant decline in the population, and a response mechanism if it is found to be causing
35 the decline.

40 New Zealand King Salmon uses that management plan across all of its sites in the Pelorus and Queen Charlotte Sounds. New Zealand King Salmon contracted ornithologist Rob Schuckard to write the draft plan which was subsequently reviewed by the Department of Conservation, by Marlborough District Council and New Zealand King Salmon.

45 The first -- quite proud about this next bit. The first survey was ground breaking in that an aerial survey using a high-resolution camera from a fixed-wing aeroplane enabled a very accurate count to be undertaken and it's sort of world-leading, that one. They used three people including Mr Schuckard to observe the photographs and do some counts.

The next count is due in February 2018. However, an outcome of the recent king shag workshop identified a possible need for earlier surveys to which New Zealand King Salmon will contribute.

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CHAIRPERSON: So when was the first one, Mr Gillard?

MR GILLARD: That would have been February 2016. It was last year.

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CHAIRPERSON: February 2016?

MR GILLARD: I think it was February 2016.

CHAIRPERSON: You say?

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MR GILLARD: I'm reasonably certain it's about that time. Well, there's one so far.

CHAIRPERSON: Yes. That's your base, then?

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MR GILLARD: Yes. And what they're proposing is to increase the number of those. At the moment, the management plan says it's every three years that we monitor that. What's being proposed is that it's done more frequently through the workshops we're holding with the rest of the industry including forestry and certain others. I'll talk about that in a minute.

25

CHAIRPERSON: Carry on.

MR GILLARD: We expect to be able to use the King Shag Management Plan and any revisions thereof on the relocated sites. King Salmon has been part of a recent workshop that included industry participants, mussels, forestry, the Department of Conservation, MPI and Mr Schuckard. New Zealand King Salmon is firmly committed to ensuring the survival of the species and it has agreed to participate in future investigations as proposed at that workshop such as increased numbers of population surveys, DNA surveillance, electronic monitoring and any other work.

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I've been involved in at least three reviews of the Marine Farming legislation and am now involved with National Direction for Aquaculture, which MPI is currently leading. We still haven't managed to get it right but there's been a huge amount of effort expended by a lot of people, industry and government, in trying to improve the policy and regulatory environment.

45

A reason we're involved in this current relocation process is because we definitely haven't got it right in Marlborough. The Marlborough Sounds Resource Management Plan does not provide for appropriate water space that suits the relevant species, salmon. That is clear in the Plan itself, as you will have heard from Mr Davies.

5 I believe for primary production to be successful anywhere the requirements of the species must be paramount. If one does not have the right rearing conditions then you are set to fail. New Zealand has a wide range of primary production species that clearly demonstrate this. Several fin fish species including snapper and king fish farming were attempted in the Marlborough Sounds are but two examples. Salmon rearing attempts at inner Sound sites also add to that list. Based on my experience I firmly believe the salmon industry has a very bright future if appropriate rearing sites can be used.

10 Site selection. I was the New Zealand King Salmon lead in the EPA processes that granted three salmon farm sites and have been actively involved in looking for new sites for many years. I'm sure suitable sites are very few in the Marlborough Sound and this may be the last gasp for salmon space in the Sounds, should this process led by MPI be successful.

20 To clarify, however, there are sites suitable for the species but competing uses make availability extremely contentious and potentially so difficult to apply for that they are frequently not available. There's a range of desirable site characteristics for a salmon farm including high flow, relatively cool, ideally between 12 and 17, and over 30, ideally over 40. However, higher flows can assist in moderating the effect of temperatures over 17 degrees centigrade. Each potential salmon-farming site has its own unique combination of these and other attributes. Some sites can be dismissed out of hand because of one or more of these criteria.

30 I've been party to the site selection process carried out for the sites being consulted on and believe they are better for salmon farming than our lower-flow sites. I began farming on poorer sites that were converted mussel farms. Most of the early salmon sites were converted from mussel sites. Had we known at the time, we would have focused more on obtaining better sites better suited for the species. But we did not know what we did not know and, like I said earlier, we were really feeling our way in those early days and there were no rulebooks to work from.

40 Over the years, it has become clear that the early sites are substandard. Many of these have not been used for many years such as those in Hallam Cove that were vacated in the late 1980s. Converting mussel farms is not the answer unless there are a lot of them to allow for rotational use.

As I've outlined earlier already, I was instrumental setting up the first farms for the company in Hallam Cove and then moving further out Waihinau, Forsyth and Port Ligar as we came to realise that the Hallam Cove sites were not ideal.

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I believe this current relocation process being led by MPI is a continuation of what we began when we moved from the inner Sounds. The research for the most appropriate sites for salmon farming began back in the pioneering days. Back then it was primarily based on trial and error. Now we have the benefit of experience, science, and collaboration with many experts and stakeholders. The philosophy behind this relocation process is not new. In my opinion, if we can move from the lower flow sites of Crail Bay, Forsyth Bay, Otanerau Bay, Ruakaka Bay, Waihinau Bay for those proposed there will be major benefits.

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All of the proposed sites have been chosen to minimise the potential interactions with other users. Ecologically special or sensitive areas and to minimise as best as possible the uses issues. No current or proposed site is issue free but care has been taken by MPI to propose sites that are as issue free as can be reasonably expected.

20

These are my comments, but following on from Mr Alvarez's comments yesterday about offshore farming. Eventually I believe we will be farming offshore in conjunction with inshore but that is a number of years away as the technology is not there yet and the risk in what will be extreme conditions have not been solved. Five minutes of extreme conditions may be enough to destroy a farm with associated millions of dollars of losses, not to mention the potential risk to vessels and staff. We need to be absolutely sure when we go offshore that these risks have been addressed. That time is not now and I just wonder whether some of these designs that they're working on at the moment have been designed with issues such as rogue waves, cyclones and everything else. It's all very well working on an average but, like I say, you only need five minutes of some horrendous wave and wind and everything else combined to lose the whole lot.

25

30

35

I've been involved in a range of investigations to identify other space opportunities. Most of these investigations are documented in the EPA evidence for nine new salmon farms of which New Zealand King Salmon received three, each with a 35-year term of consent. Evidence including maps showing a range of constraints were presented. In summary, very little suitable space has been identified that is ideal for salmon farming. There are always site-specific issues of concern to somebody. In my opinion, the water conditions in Tory Channel are some of the best in the world for growing salmon. The temperature profile is almost ideal and water flows and depths are good. The Pelorus however, has a slightly higher temperature regime in summer so is more marginal but well proven to be able to be farmed. We've farmed Waihinau for over 25 years.

Environmental management. Environment management, both from a company and from a Marlborough District Council perspective will become easier and more effective as the standards under Best Management Practice guidelines are adopted. The Best Management Practice guidelines were developed by local and international scientists, Council, New Zealand King Salmon, and the public and sets the rules that all parties will comply with. We are now in the process of implementation. This relocation process is one step in that process. That must be a better situation than what we currently have where there are a range of consent conditions across the sites. The status quo is confusing, inefficient, and costly to implement and enforce.

Consenting has evolved over the years. In the 1980s it was a simple template application with very little substantiating information whereas now it's a very major process with an increasingly sophisticated and detailed amount of information and scientific expertise required, not to mention the number of lawyers required also these days. The EPA process for obtaining the three sites was expensive, contentious and challenging for all parties. An outcome of that process was we have 84 consent conditions on each of those three sites which we need to comply with. More recently, the Clay Point and Te Pangu consents with BMP have 40 and 38 conditions respectively. On a day-to-day basis, the complexity of dealing with the variety and extent of consent conditions is difficult.

To monitor compliance with consent conditions, reviews of environmental effects are undertaken annually on each site by independent scientists and reported to Council. Those reports are then subject to scrutiny by Council scientific and technical officers and often subject to external peer review. Monitoring results have shown that our sea farms are in overall compliance with consent provisions.

5 The BMP guidelines for water quality are being developed with scientists and we expect these to be implemented within one to two years. Currently, we're running in an intermediate phase whereby we have some initial standards adopted on some of our sites and also within the EPA but with a proviso that they be reviewed once we get some further information on what is actually happening in the environment.

10 To facilitate the transition to best practice, all sea farms are already tested against these performance criteria. These BMP guidelines will form part of the consent conditions at the latest when existing consents are renewed. We have begun the process.

15 Results from the 2017 monitoring of the high flow sites, I'll just update that number 78 there. The high flow sites, I have seen draft reports for the three EPA sites, they're currently with the peer review panel and subsequent to getting feedback from the peer review panel to Cawthron, they'll be finalised and sent into Council before the end of the month. That's the three EPA sites.

20 CHAIRPERSON: Before the end of this month?

MR GILLARD: Yes, they are required --

25 CHAIRPERSON: Will they be available to us?

MR GILLARD: Yes, definitely.

CHAIRPERSON: By the end of April?

30 MR GILLARD: Yes. Yes.

CHAIRPERSON: Right.

35 MR GILLARD: So, that's those ones. I haven't seen anything from the other two high flow sites, which is Te Pangu and Clay Point.

CHAIRPERSON: Which were the three sites again?

40 **[9.45 am]**

MR GILLARD: They are the three from the EPA, so it's Waitata, Kopāua and Ngamahau. They have all got very similar consent conditions or same conditions basically, most of them.

45

5 The 2016 monitoring of the lower flow sites has shown they are all compliant with the consent conditions, however not able to achieve ES5 if B and P were adopted at current discharge levels. Ruakaka would require significant management response, Otanerau would require less of a response and Forsyth would require destocking. Forsyth is currently fallow.

10 Zinc levels are elevated across all sites and copper is elevated at Otanerau. Waihinau Bay does not have consent conditions in relation to Benthic but would be compliant against B and P only because of reduced tonnage, some fallowing and being able to move the pens around the site.

15 The consequences for the company of reducing production should it be required have been addressed by other presenters. Now, I do have those reports also if they would be helpful, the low flow sites. There are four of those. They've gone to Council already.

20 CHAIRPERSON: What have you got?

MR GILLARD: I beg your pardon?

CHAIRPERSON: What have you got?

25 MR GILLARD: Those four reports that are mentioned there under point 79. There are four farms there. We did the, or Cawthron did the monitoring end of 2016. Those reports have been completed and sent to Council. They are the swap sites, or some of them.

30 CHAIRPERSON: Yes, well, you want to get rid of those anyway.

MR GILLARD: Yes, okay. I am familiar with each of the proposed sites and believe the sites, especially the three in the Outer Pelorus, are much preferred from a fish farming perspective. Sea bed characteristics, especially at
35 the central Waitata site are pretty devoid of anything significant. I viewed the videos taken when potential sites were being identified. I believe from a fish farming perspective this is potentially the best site in the Pelorus Sound.

40 A key aspect to be taken into consideration at the central Waitata site is that deeper modelling identified that it could be possible to discharge up to 12,000 tonnes of feed and remain within the ES5 standard that is consistent with B and P. The current proposal, however, is only for
45 7,000 metric tonnes, a significant reduction which gives by default a significant safety margin. I believe the effects on the seabed will be minimal, even more so given that the starting feed discharge is proposed to be 3,500 tonnes.

I understand the NIWA water column modelling has a large degree of conservatism built in and even with the worst possible outcome shows a negligible change in water column parameters. MPI has taken a conservative approach. All of the proposed sites except Tio Point, and Horseshoe Bay, I'm sorry I missed that one, are starting at 50 per cent of calculated feed discharge for achieving ES5. This is quite a way below the calculated assimilative capacity so should give a good degree of comfort to all parties that B and P standards can be complied with.

I was a member on the Marlborough Salmon Working Group. I believe New Zealand King Salmon took a great leap of faith in agreeing to be part of that group and at times during some of the meetings I wondered why we should continue to participate. The outcome from this relocation process will in part determine how successful that working group has been.

I'll make a few brief comments on some of the specific concerns that have been raised. Landscape; there is a shot of Blowhole Point North, that one is. Landscape was a significant issue for some members of that group, especially regarding three Outer Pelorus sites. The opinions tended to reflect an emotional and unrealistic impression of the Outer Sounds. You can draw your own conclusions about that but I firmly believe there are far better areas and nicer areas within the Sounds and what that is where it's got forestry and sheep --

CHAIRPERSON: What is that?

MR GILLARD: That's the North Blowhole Point. You've probably seen that. I lived in the Sounds for nine years and even now I don't believe there has been a significant increase in people visiting that area. There are very few when you compare it to the tourist activities operating out of Picton. People will have you believe that tourism has a brighter future for the Outer Sounds. Sorry, I don't agree.

Navigation; I take the view that if you're in the Outer Sounds and cannot navigate safely you should not be in charge of a vessel, especially that far out. I believe that lighting and other navigational aids would be adequate for properly skilled and experienced navigators. If we worked to the worst skipper's attributes then we would have no marine farming, jetties, moorings or other structures in the sea and boats would be piling up on the various reefs throughout the Sounds. When I was working in the Sounds I spent many hours skippering small vessels so I am relatively familiar with the area and what is required from a navigation perspective.

5 I also don't believe there will be a significant increase in cruise ships or
other large vessels visiting the Sounds. Even if there is, then the multi-
disciplinary activities able to be viewed in the area in my view will be
an attraction and not a hindrance, as some would have you believe.
10 Additionally, the space available to navigate around the proposed mid-
channel farm is significant. I have seen videos of large cruise vessels
operating overseas navigating exceptionally narrow and potentially
dangerous passages. The proposed mid channel location of the salmon
farm at Waitata Reach does not create a narrow and dangerous
navigational passage. It's something like 3 kilometres wide and the
space either side of the farm is at least as wide as the full width of Tory
Channel, just to put it in perspective. It's quite huge really.

15 CHAIRPERSON: What is 3 kilometres wide?

MR GILLARD: The width from point to point within Waitata Reach. It's close to that.
It's over 2 kilometres.

20 CHAIRPERSON: And you say either side of farm.

MR GILLARD: Either side of the farm is at least as wide as Tory Channel or some parts
of Tory Channel anyway. Mr Preece is going to talk about AOS but
the proposed farms will be fitted with the recommended navigational
aids such as navigational lighting and radar reflectors. AOS may be
25 required for the central channel site in Waitata Reach and for the Tio
Point farm. Full compliance with the recommendations of the
harbourmaster will occur in order to minimise the navigational risk.

30 Conclusion; the production of premium salmon is a far cry from when
we started. We had seasonal supply of variable size fish that were at
the bottom of the pricing scale compared with other salmon. We were
price takers. Now we set the standard, effect prices exceeding other
national and international suppliers. I am indeed proud of where we
35 have got to and there is more to come if we can get better rearing space.
This better space will provide for a more sustainable and better
environmental income, a win-win for all parties.

40 My time in the industry has been tremendously gratifying. We've come
a long way. New Zealand King Salmon has many times been leading
the way in developing new technologies and techniques. We're often
the guinea pig, not only in the marine environment but also through our
experiences in using and contributing to changes in the legislation and
in freshwater smelt production, processing and marketing. I wish I was
45 young enough to start again from the beginning. It's a great industry
with great people working in it and associated with it.

CHAIRPERSON: Thank you, Mr Gillard.

MR GILLARD: Thank you.

MR DORMER: I'm not sure I've got my head around why a low maturation rate is a good thing.

5

MR GILLARD: These fish grow through, I think it was hinted at yesterday by somebody but maybe it was missed, but these fish grow through and die. Just prior to dying their body condition goes right off. They start losing the fat, the colour goes, they nuzzle at your gumboot when they're ready to spawn. So, what we try to do is harvest the while they're in the peak of their condition. So, we use lights to stop that trigger and that allows us to give us a wider --

10

MR DORMER: Okay, that makes sense. The next question, the only other one I had possible to do with your choice of language at the bottom of page 12.

15

MR GILLARD: What number?

MR DORMER: Paragraph 75, last sentence on page 12 commences:

20

"Monitoring results have shown that our sea farms are in overall compliance."

What does the word "overall" add to the sentence?

25

MR GILLARD: Across all those sites we are compliant with the current consent conditions and there's such a range of consent condition. Some of them are -- what's the word for it?

30

MR DORMER: Superfluous.

MR GILLARD: They are now. There's no quantum given. It's --

MR DORMER: Would your sentence still be correct if I just deleted the word "overall"?

35

MR GILLARD: Yes.

MR DORMER: Right. It doesn't add anything.

40

MR GILLARD: No. Take it out. That's fine. Confusing.

CHAIRPERSON: Sorry?

MR GILLARD: I said it was confusing to have that word in there.

45

MR DORMER: That's fine, thank you, sir.

- MR CROSBY: Just three or four, Mr Gillard. Paragraph 25 you referred to, and I think you refer in other places to farms being established in Port Ligar. What happened to that one?
- 5 MR GILLARD: That farm was just inside Cannon Point. I don't know whether you are aware of that point. It's half way into Port Ligar, just sitting inside there. That was set up in the early 1990s. Unfortunately in those days we didn't do water flow measurements and later I realised that it was actually within a gyre. The water just did a circuit round the farm and
- 10 water flows, temperatures, a whole range of things.
- CHAIRPERSON: Sorry, it was in a what?
- MR GILLARD: Within a gyre, G-Y-R-E.
- 15 CHAIRPERSON: G-Y-R-E.
- MR GILLARD: Yes.
- 20 CHAIRPERSON: What's that?
- MR GILLARD: Water flow just does a circuit.
- CHAIRPERSON: Oh, it's in a circle.
- 25 MR GILLARD: It's like a whirlpool sort of, very low flow, extremely low flows in there.
- MR CROSBY: So it was abandoned.
- 30 MR GILLARD: Yes.
- MR CROSBY: Right, okay.
- MR GILLARD: We sub-leased that on that site to someone else.
- 35 MR CROSBY: In paragraph 26 you've mentioned, and you mentioned it again later, the considerably upgraded secured mooring system.
- MR GILLARD: Yes.
- 40 MR CROSBY: There was reference by an earlier witness, can't remember the name now but to change being utilised near the cages themselves. So, is it a mix of chain and rope linking the thing?
- 45 MR GILLARD: The chain at the top allows you to tension or loosen off the moorings. And also prevents the vessels chafing right up there close in to the farm too when they come alongside.

- MR CROSBY: Paragraph 60 you mention that several fin fish species including snapper and kingfish were kept in Marlborough Sounds and you said there were two examples of failure.
- 5 MR GILLARD: Yes, in my own personal experience, those ones. I know there's still snapper being grown in Beatrix Bay. How successful that is I don't know. I think they're about to be harvested this week or next week. But my experience with snapper was not good.
- 10 MR CROSBY: Final question really, just a thought that's been occurring to me in relation to Tio Point. You would have been familiar with going out to Te Pangu, etc, of the Te Ātiawa mussel farm experiment that occurred at Tio Point.
- 15 MR GILLARD: Yes.
- MR CROSBY: Te Ātiawa advised us that was unsuccessful. They couldn't hold it in the high flow conditions. In relation to the footprint of that mussel farm what is the exact size and location of your cages? Will it be less than, I would assume, the footprint of the surface structure of the mussel farm?
- 20
- MR GILLARD: Much smaller than that, yes. I'm just trying to think. I think it's about 0.75 max for pen structure on there, that sort of figure, 0.746 or something.
- 25
- MR CROSBY: The point I'm really getting at is do I take it from that that the surface structures of the cage would be within the line of headland by way of comparison with those mussel farm structures?
- 30
- MR GILLARD: The pens themselves definitely within headland. That's how they've been drawn, yes. The moorings will poke out but not the structures. They're well inside.
- 35 MR CROSBY: All right. Thank you very much. Sorry, there was one other issue and that was in terms of the failure that occurred in 2006 at Te Pangu, have you had anything of that nature or breakaways of debris, etc, since 2006?
- 40 MR GILLARD: No, not once since we've used this new mooring set up.
- MR DORMER: What was the farm that was within the headland point?
- MR GILLARD: Te Ātiawa mussel farm.
- 45 CHAIRPERSON: At Te Pai?
- MR GILLARD: No, at Tio Point.

CHAIRPERSON: Oh, Tio Point.

MR DORMER: We're talking about your proposed Tio Point.

5

MR GILLARD: The one that iwi's involved in, yes, Te Ātiawa site.

CHAIRPERSON: You asked about Te Pangu.

10 MR CROSBY: No, I was just setting the background of the question. When he went to Te Pangu he would have seen the Te Ātiawa farm at Tio Point.

MR GILLARD: Yes.

15 CHAIRPERSON: Right.

MR CROSBY: So on the basis of that knowledge was he able to describe to us the comparison?

20

[10.00 am]

MR DORMER: We were between ourselves in the first day or two of the hearing talking at some length about the boxed or for want of a better word the shaded area on the Plan where the salmon farm is proposed to be, with each of the six locations. I forget what answer we came to as to whether that box depicted on the Plan was the area where the cages were to be or whether the mooring can extend beyond that.

25

MR GILLARD: Without looking at one here but effectively what you'll see on the Plan will be an outside boundary within which the moorings have to be. Then within that there'll be another box or series of circles which will be the surface structures themselves.

30

CHAIRPERSON: Is this the one? That's another one with the black -- is that what you're talking about?

35

MR DORMER: Yes.

MR GILLARD: It's unfortunate some of those earlier drawings, maps showed only that outside consented, total consented area and didn't just show the pen structures themselves, of which you can see. Because the rest of it you can't see. It's on the seabed.

40

MR DORMER: Here we are. Is that Tio Point?

45

CHAIRPERSON: That's Tio Point. Just have a look at this, would you, please? Mr Gillard, Tio Point, number 6. Now, what does that depict?

- MR GILLARD: So, that there depicts the overall consented area.
- CHAIRPERSON: Including the lines.
- 5 MR GILLARD: Yes, so that from EG25 will be the boundary of the pens. So the pen itself won't -- that's not the pens. Like I say it's unfortunate.
- MR CROSBY: Which report are we best to go to to look at the cage depiction?
- 10 MR GILLARD: I think they're in the back of the engineer's reports.
- MR CROSBY: The which?
- MR GILLARD: Engineer's reports. I think that's probably the best one. It'll show the moorings and all sorts in there as well.
- 15 MR CROSBY: Right, okay.
- MR GILLARD: I sell reports.
- 20 CHAIRPERSON: Mr Gillard, if you go back to paragraph 62 and you say, "I'm sure suitable sites are very few" and so on. You say, "Competing uses make availability contentious". Can you give us an example of that?
- 25 MR GILLARD: I'd love to have farms down the middle of Tory Channel.
- CHAIRPERSON: Sorry?
- MR GILLARD: I'd love to have a farm down the middle of Tory Channel but there's just absolutely no way.
- 30 CHAIRPERSON: So, that's what you mean by competing uses, do you? Not competing --
- MR GILLARD: Yes, it's quite major. Sorry.
- 35 CHAIRPERSON: -- not competing aquaculture uses, just use of the space.
- MR GILLARD: Yes, like Queen Charlotte Sound we voluntarily kept away from that. That's basically claimed to be a recreational sound so all hell would break loose if someone was to apply there, so it's that sort of issue I'm talking about.
- 40 CHAIRPERSON: That's what you mean by that.
- 45 MR GILLARD: Yes.
- MR DORMER: Does that include houses?

MR GILLARD: Yes, all the above.

CHAIRPERSON: Right, thank you. Paragraph 83, you talk about taking a great leap of
5 faith and sometimes wondered what you were doing at the meetings of
the working group. Can you tell me why?

MR GILLARD: The great leap of faith was really putting the future of our company in
10 the hands of other people where we don't directly have control
ourselves. It was basically handing that over. There was that side of it
and then, I guess, both sides of the argument have the same problems
about these working groups. I believe that there were people on that
group that no way they wanted to comply with the way the thing was
15 scoped out, which was to try and work out how we could better manage
the salmon farm. So, I think there were people on there that really
wanted the farms gone. That was quite clear.

CHAIRPERSON: People on the working group.

MR GILLARD: Yes.
20

CHAIRPERSON: But they didn't prevail, did they?

MR GILLARD: No.

CHAIRPERSON: Right, thank you. Could you put that slide up, please? The one you
25 put on about landscape when you were talking in paragraph 84. Where
is the Blowhole Point North site on that picture?

MR GILLARD: There. There's actually a mussel farm in there. In there.
30

CHAIRPERSON: I can't see this.

MR GILLARD: That's Blowhole Point North. It's very hard to see.

CHAIRPERSON: Can you see the mussel farm?
35

MR CROSBY: No.

CHAIRPERSON: So, just do it again, would you, please?
40

MR GILLARD: Probably a bit shaky. Just that water level. You can just see --

CHAIRPERSON: Where the forest is coming down or the bush is coming down.

MR GILLARD: Yes, the forest is -- there are actually three mussel farms in that bay.
45

CHAIRPERSON: Yes, and your site in relation to the mussel farms.

- MR GILLARD: Is alongside.
- CHAIRPERSON: Outside.
- 5 MR GILLARD: Out this way, out into the better flow in deeper water.
- CHAIRPERSON: That photograph would be taken obviously from the water.
- MR GILLARD: It's probably between Forsyth Island and there.
- 10 CHAIRPERSON: Where is Forsyth Island?
- MR GILLARD: To the left.
- 15 CHAIRPERSON: To the left.
- MR GILLARD: Yes, to the left, yes. Forsyth Island, Duffer's Reef's a bit further down.
- CHAIRPERSON: Between Forsyth Island and --
- 20 MR GILLARD: And, I don't know what you call it. Just call it Blowhole.
- CHAIRPERSON: Sorry?
- 25 MR GILLARD: Blowhole Point I think it probably is called. I don't know what you call the total area. Down further it's called West Entry but that's quite a way down.
- CHAIRPERSON: And it's a current photograph, is it?
- 30 MR GILLARD: Yes, it's out of one of the reports.
- CHAIRPERSON: Oh, is it?
- 35 MR GILLARD: It is, yes.
- CHAIRPERSON: Okay.
- MR GILLARD: Mr Hudson's report.
- 40 CHAIRPERSON: Out of?
- MR GILLARD: Mr Hudson's report.
- 45 CHAIRPERSON: Okay. Thank you. At paragraph 85 you're talking about the tourist activities and you say, "People would have you believe that tourism has a bright future for the outer sounds. Sorry, I don't agree." Question: why?

- 5 MR GILLARD: Well, most people you see out there are transitory. The vessel is just passing through. There was a proposal for a lot of this area to be turned into a – I don't know why you would call it – a touristy ecological park type. Those guys went bust and they've moved on. I just can't see it --
- CHAIRPERSON: What was the name of that?
- 10 MR GILLARD: I'm just trying to --
- MALE SPEAKER 1: It was a trust, wasn't it?
- MR GILLARD: Yes.
- 15 MALE SPEAKER: Pelorus Wildlife.
- MR GILLARD: Yes, Pelorus Wildlife Trust they were called. Pelorus Wildlife Trust?
- CHAIRPERSON: Yes?
- 20 MR GILLARD: Yes, and they've gone west. They've gone ...
- CHAIRPERSON: Pelorus Wildlife Trust doesn't exist or ...?
- 25 MR GILLARD: No, and the land was all broken up and on sold to various people.
- CHAIRPERSON: When did that occur?
- MR GILLARD: Three years ago? Three or four years ago? Subsequent to the EPA.
- 30 CHAIRPERSON: So that was intended to be a tourist venture, was it?
- MR GILLARD: Yes, they were going to put hotels and helicopter pads and all sorts of stuff in there --
- 35 CHAIRPERSON: Oh, yes.
- MR GILLARD: -- that's never really got going. I can believe that you have something like that in Tennyson Inlet perhaps which is a bit more picturesque than out here.
- 40 CHAIRPERSON: In your view it's not picturesque enough to attract the tourists?
- MR GILLARD: That's my opinion. Yes, if I was going out there I'd head off to the Chetwodes or to D'Urville Island because that's not very far away. Why would you stay here?
- 45 CHAIRPERSON: Yes. All right, thank you very much, Mr Gillard.

- MR DAVIES: I've found the map of Tio Point site or at least the most helpful map I can find --
- 5 CHAIRPERSON: Yes.
- MR DAVIES: -- on this double sheet. Is that one that you've been looking at before?
- MR GILLARD: Yes, I think so.
- 10 MR DAVIES: It's in the Navigatus report at appendix A.
- MR DORMER: What are we looking at?
- 15 CHAIRPERSON: I can't read that either.
- MR DAVIES: It's pretty small.
- CHAIRPERSON: This outer line is the moorings and the four square --
- 20 MR DORMER: That represents the pens.
- MR DAVIES: Forty metre pens, those ones.
- 25 CHAIRPERSON: These moorings could well be at some considerable --
- MR DAVIES: They are and you can do that with some editing --
- CHAIRPERSON: Oh, yes?
- 30 MR DAVIES: That's the computer model there.
- CHAIRPERSON: Okay, so the answer is they aren't at a gradual slope?
- 35 MR DAVIES: Not at the blocks, no.
- (off mic conversation)
- CHAIRPERSON: Yes, I think we were told that.
- 40 MR DAVIES: I've just been told by Mr Wilson that I have an older version of the Tio Point area. I think the earlier version has been updated which probably is that diagram, but larger, so ...
- 45 MR CROSBY: Is that on the MPI website?

MR DAVIES: On think the MPI website. So I've printed off a copy of the technical reports which were available soon after they were put up there. I'm told that there's been an amended --

5 CHAIRPERSON: Well, we can get it off to Navigatus.

MR CROSBY: Yes.

10 MR DAVIES: Slightly different from the pokey version which I showed you but I think you'll be able to use that.

CHAIRPERSON: Thank you. Right, Mr Preece?

15 MR PREECE: (Moriore content)

Last week I appeared before the Panel supporting my submission as a recreational user of the Marlborough Sound. I talked about my passion of caring for the environment which attracted me to aquaculture as a low-impact means of producing animal protein --

20

[10.15 am]

CHAIRPERSON: Just a minute, what are you reading from?

25 MR PREECE: I'm just reading, just talking. Today --

CHAIRPERSON: You're not talking; you're reading.

30 MR PREECE: Sorry, I --

CHAIRPERSON: Have you got a written statement?

MR PREECE: I just had some notes that I'm reading from --

35 CHAIRPERSON: Okay.

MR PREECE: -- before I --

40 CHAIRPERSON: Well, just take it slowly, would you, please? We have a statement of your evidence here.

MR PREECE: Yes, and I am about to come on to that. I was just going to introduce it.

45 CHAIRPERSON: Yes, all right. Well, we are aware that you came to see us last week so we can move from there. So where do you want to begin now?

- MR PREECE: My submission is divided into two. Firstly, there's an overview of salmon farming operations so that's talking about our breeding programme through to harvest and, secondly, there is a session on biosecurity and fish health.
- 5 CHAIRPERSON: Salmon 101. I think we've had most of that, haven't we?
- MR PREECE: So a lot of those points I've covered.
- 10 CHAIRPERSON: Yes, we don't need to do it again.
- MR PREECE: Okay, there's a couple of points there that I just want to make, to highlight. Point 9 in the introduction has been added to since my submission last week which talks about my launch master, yes.
- 15 CHAIRPERSON: Your launch master's --
- MR PREECE: Yes.
- 20 CHAIRPERSON: Yes, okay. Thank you.
- MR PREECE: What I've done is I've prepared a PowerPoint presentation which covers all of these points in the Salmon Farming 101 but I will skip through them --
- 25 CHAIRPERSON: Yes.
- MR PREECE: -- and just highlight a few points.
- 30 CHAIRPERSON: I think we've had that more than once now.
- MR PREECE: Yes. So I'll just quickly skip through them --
- CHAIRPERSON: The biosecurity one.
- 35 MR PREECE: -- very quickly as they are the areas that we farm. Smolt hauling. Do you me to quickly go through these photos? Not really?
- CHAIRPERSON: Well, we've already heard quite a bit of evidence about the smolt business and transporting it and so forth.
- 40 MR PREECE: Yesterday you spoke about the cage relocation process so there's a photo of that going on.
- 45 CHAIRPERSON: Yes, yes.
- MR PREECE: Towing that; two tugs there linked to that pen there. Then the pen's relocated into the warmer water sites from down the Tory Channel.

CHAIRPERSON: Yes.

5 MR PREECE: I would like to cover the barge. No one's talked about that. So New Zealand King Salmon services each of its farms from an on-site barge. New Zealand King Salmon's existing barge structures are two-storey and have a footprint of approximately 260 metres squared so it's these barges here and we have --

10 CHAIRPERSON: That's paragraph 20.

15 MR PREECE: Yes, para 20. Each barge has its own set of moorings and is connected to the farm by a secure bridge which allows staff to move safely between the barge and the farm. In the case where the site is exposed to increment with a vessel that's used to transport staff from the barge to the sea pens. The barges are needed to accommodate shift staff living quarters, offices, sufficient feed storage to generate a room, feed distribution systems, mortality and silage systems and workshop facilities. The barges are essential in order to allow New Zealand King Salmon to address issues should they arise: for example, feed delivery to New Zealand King Salmon's farms is not guaranteed every day due to weather conditions, etc. Having an onsite crew and a contingency of feed - so there is feed stored within these barges, that one carries about 100 tons, well they both carry about 100 tons actually - allows New Zealand King Salmon to continue feeding fish during these times and avoid animal welfare issues. It also allows issues such as seals entering the farms, net rips and storm damage to be dealt with in a timely manner. In addition the presence of shift workers on the farm 24 hours a day, 7 days a week, provides an added security function, protecting both the site and the fish. Barge structure is very site specific in relation to the proposed farms. Due to the cost the barges are kept as small as possible -- sorry, are kept as small as reasonably possible.

35 CHAIRPERSON: What do you mean, "They are site specific in relation to the proposed farms"? What ...?

MR PREECE: So these barges here are --

40 CHAIRPERSON: Yes. Built for their site?

MR PREECE: -- built for their site, yes --

CHAIRPERSON: Right.

45 MR PREECE: -- and they fit within the resource consent conditions of those sites.

CHAIRPERSON: Okay.

MR PREECE: The resource consent condition on this site states that the barge must look more vessel-like. I think that's sort of the working. So we have built a barge that looks a wee bit more like a vessel. This is a new barge that's being built by Cullins(?) at the moment for one of our new sites.

5

MR CROSBY: So which site is the top one?

MR PREECE: That's the Waitata site barge. That's the Clay Point site barge and this one will be sited in Kōpaua. It will be finished in July this year.

10

CHAIRPERSON: All right.

MR PREECE: The barges house the sewage which is disposed of inland. That's the human sewage and grey water is discharged. I talk about the storage of hazardous substances as per the Act. Sea pens and moorings: currently the majority of New Zealand King Salmon's fish are grown using steel pens of a range of different sizes. Sizes vary from 20 by 20 metres to 40 by 40 metres and mirror the development of the industry. Grower nets are attached to each sea pen to enclose an area of sea and these need to prevent the fish from escaping. Circular pens, also called polar circles, have been used in the Crail Bay farms. These pens have the ability to flex and withstand larger swells. Where applicable, New Zealand King Salmon will use these on more exposed sites. Just below this site here, I've just got a photograph there of the Ruakaka salmon farm and directly below that is a schematic of the mooring layout. You can see the farm there with the pens. This square here is the licence area and that's by the black area that's referred to in the --

15

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CHAIRPERSON: Yes.

30

MR PREECE: I did want to make a point about lighting. You asked about the -- why we light our fish.

CHAIRPERSON: Well we've just been told that.

35

MR PREECE: So, yes, so these are the mature fish there that we don't want in the market. See how they turn dark.

CHAIRPERSON: Oh right.

40

MR PREECE: And they change. We want a silver bright fish.

CHAIRPERSON: Yes.

MR PREECE: We've talked about the net cleaning. There's a schematic there of net cleanings. We run a range of systems. This is a winch system. That's a schematic of it, but it shows the net eye fouling being cleared and this is a remotely operated vehicle. It's basically a tracked vehicle that can be driven around the net, to clear the nets.

5

CHAIRPERSON: Yes, we've just been told about that too.

MR PREECE: I'm getting there. Navigation lighting. So, I do want to add a point here. The Harbour Master will determine that the appropriate lighting is proposed for the salmon farms prior to them being installed. We've talked to that.

10

15

Paragraph 36, the Clay Point farm is located outside the shipping channel in Tory Channel and is fitted with an automatic identification system to aid navigation. The Ngamahau farm is located outside the shipping lane in the Tory Channel and is fitted with a global positioning system which alerts New Zealand King Salmon employees and the Marlborough Harbour Master should the farm move greater than a 20 metre direction.

20

25

I just want to -- I'll just click on that, and just while that's loading up -- The mid-water channel site in the Pelorus Sound, one of the proposed relocated sites, could be fitted with an AIS and active radar reflectors. It is reasonable to assume that any vessel coming into the Pelorus Sound would have undergone a significant journey involving passage planning. It's likely these vessels are fitted with radar and AIS to aid navigation. Part 22 of the Maritime Rules deals with collision avoidance and states, "If in doubt around a collision existing, all means of navigation must be used" which includes radar and AIS. I have never been on a ship or a super yacht that is not equipped with radar or AIS.

30

35

So, I just want to give a quick demonstration of what the AIS is. This is live, that I've got up on the screen here. So, on a ship's bridge or a super yacht's bridge we've got a system like this which shows a map, and you can click on any ship and it will tell -- it will load up and it will tell you what the boat is. Strait Feronia, where it's going, what it's speed is. So, it gives you a heap of information about the boat. So, if you can -- just have to work out how to get rid of that now. So, you can see that on any ship's bridge. You can see the -- oh it's actually -- you've got the Mahoe there at our Clay Point salmon farm because they're harvesting at the moment. So, this is a navigation aid that can be used or can be fitted onto our farm so ships can detect our farms. So, I just wanted to show the Panel that.

40

45

CHAIRPERSON: So, a vessel coming into Pelorus --

MR PREECE: Yes.

CHAIRPERSON: -- which I think was what one of the concerns is, at night?

5 MR PREECE: Yes, so if you are transiting into the Pelorus, the proposed site is here just on the map, it would have an AIS fitted which would show it sitting there. So, the navigator on the bridge of the ship or the super yacht coming into the Sound, could click on that, see the farm was where it was, pick it up on its radar and navigate appropriately.

10 So, that's an AIS system. So, there we can see there's a Tasman Challenger that's sitting in there, and this is live. That's real time.

CHAIRPERSON: So where is that boat? Where's the Strait Feronia?

15 MR PREECE: Oh, I can't get rid of the -- this is a web-based version, so the Strait Feronia at the moment is --

CHAIRPERSON: Out there?

20 MR PREECE: Out here. So, this is out in the Cook Strait.

CHAIRPERSON: Yes. Right.

25 MR PREECE: There she is there, approaching Tory Channel.

CHAIRPERSON: All right.

30 MR PREECE: Here you can see the Mahoe. That's one of our harvest vessels at Clay Point and then alongside her is a vessel called Gannet. I don't know where that's from. From Lyttelton, so it must be a fishing vessel. I mean you can click on that and get some information about the vessel.

CHAIRPERSON: Oh right.

35 MR PREECE: We know it's a -- yes, there it is there.

CHAIRPERSON: It's a yacht?

40 MR PREECE: It's a yacht.

CHAIRPERSON: Yes.

45 MR PREECE: So this is all available on the bridge of a -- of a super yacht or a ship to aid with navigation alongside radar.

CHAIRPERSON: And what about smaller cabin vessels that might be out there, just on a day trip?

MR PREECE: A recreational vessel it's -- in my experience it's probably not particularly common to have --

5 CHAIRPERSON: Wouldn't go that far?

MR PREECE: -- radar or AIS.

10 CHAIRPERSON: They wouldn't have radar, no.

MR PREECE: All our vessels are fitted with radar and they're small vessels, but it's probably not that common, but they will be fitted with GPS, but that is unlikely to have an AIS function.

15 So that was that. And the other point I make there is around active radar as opposed to passive radar reflectors. So, an active radar is when you're navigating on a vessel, it sends a radar pulse out and the signal, it -- the active radar transmitter sends a signal back to the vessel rather than just reflecting off a hard object. So, it's a more reliable method of giving a reflection.

20 CHAIRPERSON: Right. Thank you.

MR PREECE: I think we've talked about feed and feeding.

25 CHAIRPERSON: Yes.

MR PREECE: Just out of interest, those are the worms that live in the mud under the farms, so they're breaking down the organic matter. I didn't have any points to make there. I didn't have any other points --

30 CHAIRPERSON: No.

MR PREECE: -- on the Salmon Farm 101.

35 CHAIRPERSON: No. Right.

MR PREECE: So, fish health and biosecurity. So, paragraph 70.

40 CHAIRPERSON: Yes.

MR PREECE: Fish welfare. Every fish in the farm is valuable to New Zealand King Salmon and fish welfare is very important. King Salmon are naturally shoaling animals and as such, when contained in a sea pen it's not contrary to their natural instinct. The shoaling response helps confuse predators in the wild.

45

5 In order to comply with the Animal Welfare Act 1999 and subsequent amendments, New Zealand King Salmon has an animal welfare policy which overarches all operating policies. This means that all of our operating policies within King Salmon must take into account animal welfare.

10 New Zealand King Salmon sits on an animal ethics committee, so where applicable, production trials involving fish are independently reviewed and approved prior to the trial commencing.

15 Biosecurity. Unlike most New Zealand Primary Industries, we do not permit the importation of live salmon. There is only one salmon producing country that does this, Australia. By eliminating this vector, this significantly reduces the chance of accidental introduction of a serious salmon pathogen. So, that's a very key point. So, because we're not bringing live fish into the country or eggs into the country, we can reduce a -- sorry, eliminate a significant vector, disease transfer.

20 **[10:30 am]**

25 New Zealand King Salmon wants to protect the salmon industry. New Zealand King Salmon has a biosecurity policy which is linked to the management plans we abide by on our sites. Having an effective biosecurity plan helps reduce the spread of pathogens.

30 New Zealand King Salmon is one of the -- New Zealand's salmon farm -- New Zealand salmon farming companies, has given mandate to Aquaculture New Zealand to sign the Government Industry Agreement which states:

35 "The aquaculture industry will work with the Ministry of Primary Industries to develop and implement successful biosecurity strategies to protect New Zealand's industry."

40 A disease situation is the result of the interaction of three components. Host, pathogens and the environment. In independence, there is no disease situation.

45 This proposal will eliminate the environmental component of the disease or improve, sorry, the environmental component of the disease equation. The proposed sites have high water flow which results in more stable water temperatures, higher oxygen replacement and nitrogenous waste removal. This reduces stress and stress related immunosuppression making the fish less susceptible to pathogens.

So, on the schematic there, basically this area here becomes much smaller, so you're less likely to get environmental diseases.

5 Single year class fallowing refers to the practice of only farming one year class on a site and allowing a fallow period between year classes, which is sufficiently long enough to kill or reduce pathogen numbers prior to restocking the site. Single year class fallowing is an important management tool should a pathogen be present.

10 The new sites, with improved production potential, will permit New Zealand King Salmon, should the need arise, to single year class fallow without materially affecting the annual production of the company.

15 Area management refers to the practice whereby hosts, in this case salmon, are removed from an area in order to reduce or eliminate a pathogen. Should the situation present itself, New Zealand King Salmon may wish to carry out this in the future and for this reason MPI should consider making more geographically isolated areas available for salmon production.

20 So, it's just wanting to point out that the sites that New Zealand King Salmon has available within these two areas here, which in the situation that we need to area manage, we would need to shut down the farming operation in one area while we harvest this one out and while that's shut down, allow a fallow period. So that significantly impacts production and we sort of heard yesterday why that's -- why continuous all year-round production is important.

25 CHAIRPERSON: Yes. Now on the matter of mortalities, we've heard quite a lot of evidence about that already today from Mr Gillard.

MR PREECE: Yes.

30 CHAIRPERSON: Do you add anything to that?

MR PREECE: Yes, I do. This is specific to two recent findings.

35 CHAIRPERSON: Two recent?

MR PREECE: You're probably hear about this later in the hearings. So --

CHAIRPERSON: All right.

40 MR PREECE: NZRLO and Tenacibaculum Maritimum - summer mortalities. In March 2012 New Zealand King Salmon reported higher than usual mortalities to MPI at its Waihinau Bay farm. Subsequent summers to 2015 had higher than normal mortalities.

Over the course of a series of investigations and diagnostic techniques, Bright Water Consulting Limited and New Zealand King Salmon determined a significant portion of the summer mortalities were due to a range of other factors. Enteritis, a condition with severe inflammation of the intestines, causes fish to go off their feed, lose protein through their intestine and tends to increase permeability of the intestinal wall to bacteria and bacterial toxins, all of which are a direct cause of fish mortality.

Gastric dilation and air sacculitis. A condition where the physical properties of the salmon food result in abnormal function of the stomach which the salmon cannot cope with. The salmon drinks its water, its stomach distends without absorbing water from the intestine, it suffers from an osmotic balance and it dehydrates. In mild cases, it places physiological pressure on the fish and makes it more likely to die from other causes, but the condition can more severe -- can also be severe, which directly results in mortality.

Late runting, a behavioural condition where the fish choose not to feed on pellets and due to their weakened health status, they die when faced with an environmental challenge.

A new method of detecting organisms by quantitative polymerase chain reaction (QPCR) resulted in the Animal Health Laboratory in Wallaceville, Wellington, being able to detect three strains of New Zealand rickettsia like organisms (NZRLO) and *Tenacibaculum Maritimum*, a ubiquitous marine bacteria in a portion of the mortalities. The new technology enabled detection of these organisms, so it is impossible to determine whether they are recent introductions or not, and despite investigations, causality with fish losses has not been demonstrated. These are not the rickettsia reported in shellfish.

Further testing of salmon carried out by MPI showed that NZRLO and *Tenacibaculum Maritimum* to be detected on multiple salmon farms in the Marlborough Sounds and Akaroa Harbour. Only the Waihinou farm showed unusual mortalities.

T. Maritimum is a gram negative filamentous bacterium which is ubiquitous in the marine environment. It's a secondary infection that can infect hatchlings.

Rickettsia species of bacteria are on a Schedule of Notifiable Organisms 2015. On the 19th of October 2015, using section 122 of the Biosecurity Act, MPI directed New Zealand King Salmon to implement their status red in the New Zealand King Salmon's Biosecurity Policy. This had been in place since February 2015 but the direction meant that New Zealand King Salmon were now legally required to implement status red in its biosecurity policy.

5 On the 20th of April 2016, MPI issued a controlled area notice to New Zealand King Salmon in order to restrict the spread of NZRLO. This required New Zealand King Salmon to apply to MPI in order to move equipment associated with the propagation of king salmon.

10 On the 18th of July 2016 MPI served another notice of direction to New Zealand King Salmon to cease distribution of bait and burly products derived from farmed salmon from within the controlled area. On the 1st of November 2016, MPI altered the direction to permit the production and distribution of burly subject to the treatment by heating or freezing.

15 At this point in time we cannot define what role, if any, the NZRLO played on the mortalities we observed over the summer periods. New Zealand King Salmon are working with MPI to develop challenge testing which may shed further light on this organism's role in salmon mortalities.

20 The Ruakaka algae bloom. Algae blooms are naturally occurring events. During June 2010 anithia toxic fish lethal bloom pseudochattonella verruculosa affected the Ruakaka farm. The bloom originated at the head of Grove Arm and moved towards the salmon farm. So just up here in Grove Arm, up Anakiwa, the bloom started up here. It's a relatively shallow arm of the Marlborough Sounds and after
25 a period of heavy rainfall and calm weather the bloom started and the front slowly advanced out towards our farm, out here. This was the farm that was affected at Ruakaka Bay.

30 When the bloom was detected at Ruakaka the farm was successfully relocated to Otanerau Bay for several months until the bloom naturally dissipated. The bloom in the inner Sounds can be clearly seen from photos. So, we relocated the farm around here to Otanerau and we saved 85% of the biomass on that farm.

35 The experience has resulted in early detection monitoring by sampling for algae at Wedge Point. So, we now sample down here at Wedge Point, closer to the Grove Arm, so that gives us an idea if there is a bloom originating from the Grove Arm and we also train our staff to undertake daily phytoplankton monitoring. These improved processes
40 permit earlier detection of an algae bloom allowing New Zealand King Salmon more time to instigate mitigating action.

5 That's a farm relocation there, so that's us towing a farm. Not the Ruakaka farm. Three tugs. Farm and a barge attached and you tow pretty slowly. It's about -- takes -- the speed is about half a knot, so a very slow process and there's a photograph there taken from an aeroplane of the algae bloom. This is the front there that you can see of algae and the algae's running -- that's the Tory Channel there, Ruakaka Bay's in here and the Grove Arm, where the bloom originated from, is up there. Cawthron did quite a bit of work on that bloom just to prove how it was -- or how it was brought about.

10 Antibiotics. New Zealand King Salmon has on four occasions used antibiotics as a trial. One was a lab-based trial in Nelson. The first two trials for use confined to a single pen to determine whether oxytetracycline would have a positive effect on gastric dilation and air sacculitis, in 1999, and enteritis in 2000. As it happened, the fish did not respond to antibiotics and the trial was never repeated. A third sea farm trial was carried out in 2014 where selected fish were injected with engemycin to control secondary skin infections. An effect was determined. None of those fish went to market.

20 Due to the lack of diseases -- salmon diseases in New Zealand coastal waters, antibiotics, lice treatments and anthelmintics or anti-parasitic drugs are not required in the New Zealand salmon industry. Although this is the current enviable situation for New Zealand salmon farms, there may be a requirement for antibiotics, lice treatments and animal remedies, or anthelmintics at some point in the future should a pathogen suddenly become prevalent.

30 In conclusion. Relocating to high flow sites will result in more stable temperatures and higher oxygen replacement and nitrogenous waste removal. These sites will be better for fish health, will result in improved environmental outcomes. The cooler water at the high flow sites should result in a reduction in summer mortalities. The relocation proposals is likely to improve biosecurity by enabling New Zealand King Salmon to farm in environments where fish are least susceptible to disease situations. Improved production potential at the higher flow sites will permit New Zealand King Salmon, should the need arise, to use single year class fallowing without materially affecting the annual production of the company.

40 New Zealand King Salmon require a better environment for our salmon. A better environment will improve fish health and welfare. Fish health and welfare is fundamental to producing a premium product. Thank you.

45 CHAIRPERSON: Thank you, Mr Preece.

- MR CROSBY: The only question I've got arose out of your paragraph 89 and after the discussion of those summer deaths. I think there's been a figure provided to us of 5% mortality that you've been working on.
- 5 MR PREECE: Yes.
- MR CROSBY: Was that 5% exceeded in the course of those periods or not?
- MR PREECE: During those mortality events?
- 10 MR CROSBY: Yes.
- MR PREECE: Yes, that was exceeded during those periods, on that farm.
- 15 MR CROSBY: Right. What levels did you get up to?
- MR PREECE: So that was -- Andrew Clark spoke about that yesterday --
- MR CROSBY: Yes.
- 20 MR PREECE: -- and that was about 70% mortality in that particular instance.
- MR CROSBY: Right. Okay, thank you.
- 25 MR PREECE: And not -- and we couldn't link it to the NZRLO.
- CHAIRPERSON: Thank you very much, Mr Preece.
- MR PREECE: Thank you.
- 30 CHAIRPERSON: Now that completes your presentation --
- MR DAVIES: It does, yes.
- 35 CHAIRPERSON: -- Mr Davies, doesn't it?
- MR DAVIES: I've got some more information on the Heritage case and I've got some Hansard to provide to you, but other than that ...
- 40 CHAIRPERSON: You've got what?
- MR DAVIES: Some Hansard to provide to you.
- CHAIRPERSON: Oh yes.
- 45 MR DAVIES: But I'll provide that separately.
- CHAIRPERSON: Yes.

- MR DORMER: So, you couldn't find the case in the hour you were allotting yourself?
- 5 MR DAVIES: No. I'll keep looking. Yes, if you've got any more hints. I've tried Heritage, I've tried Wellington, I've tried any case which referred to New Zealand at all.
- MR DORMER: No this wasn't a salmon case, obviously.
- 10 MR DAVIES: But any case which referred to the Supreme Court decision.
- MR DORMER: Oh, okay.
- MR DAVIES: I've -- if you've got any other hints as to what it might detail then --
- 15 MR DORMER: I shall have another look over the weekend.
- MR DAVIES: If you recall the Judge, it might help.
- 20 MR DORMER: Yes, it would, wouldn't it?
- MR DAVIES: Yes.
- MR CROSBY: What was the case? Oh, the Heritage building case in Wellington, was it?
- 25 MR DORMER: Yes. A very recent one that I had some inkling was relevant to this and I've quite forgotten why now.
- MR DAVIES: The Save Erskine College, that decision. Is that the one?
- MR DORMER: Yes.
- MR DAVIES: Oh well, oh then I have found it. I just couldn't see the relevance.
- 35 MR DORMER: I've quite forgotten what the relevance was.
- MR DAVIES: I will provide you with copies of the Save Erskine College. I think there's two decisions on it.
- 40 MR DORMER: Yes, there are.
- MR DAVIES: Both --
- 45 MR DORMER: Okay. That's good. Thank you.
- MR DAVIES: Thank you.

CHAIRPERSON: Now in terms of our schedule for today, who's next? Sanfords is it? People from Sanfords here?

[10:45 am]

5

MR CULLEY: Yes, I'm here.

CHAIRPERSON: Yes, we're just going to take a short break now. How long are you likely -- I see your scheduled here for half --

10

MR CULLEY: If you don't ask me too many questions, half an hour tops.

CHAIRPERSON: Right, and there's just one of you?

15

MR CULLEY: Just me.

CHAIRPERSON: Okay and then is it Nikau coming after that because Carruthers is not here?

20

FEMALE SPEAKER: No.

CHAIRPERSON: So then there's Nikau, O'Connell, McLennan, Black. Is that the rest of the order as it is, is it? All right. We'll deal with your presentation at 11 o'clock, thank you.

25

ADJOURNED [10.45 am]

RESUMED [11.08 am]

30

CHAIRPERSON: Mr Culley, is it?

MR CULLEY: Thank you, Mr Skelton, yes.

CHAIRPERSON: All right. The floor is yours, Mr Culley.

35

MR CULLEY: Good morning, gentlemen. Thank you for the opportunity to speak to you today. I'm presenting the oral submission for Sanford Limited and this is a statement of evidence of Edward John Culley on behalf of Sanford Limited.

40

I have got no presentation on the video screen today but I've provided you with my speaking notes.

CHAIRPERSON: Yes.

45

MR CULLEY: So my name is Edward John Culley, I'm known as Ted. I'm a General Manager of Processing for Sanford Limited based out of Havelock. I'm responsible for managing Sanford's processing operations across five

5 sites and also one site in China. Prior to my current position I was the Sanford Aquaculture Manager where I oversaw the acquisition and development of 2,025 hectares of water space, primarily growing Greenshell mussels but also including 3,300 ton of salmon being farmed in Big Glory Bay on the Stewart Island.

10 I'm a director on Aquaculture New Zealand, which is a sector representative body of fish farmers and processors and mussel farmers. I'm aware of the Aquaculture NZ submission to the relocation proposal and Sanford's submission is not at odds with the industry perspective, but we do raise several issues that arise from our potentially becoming close neighbours to the NZ King relocated farms sites 1 and sites 4. Our concerns are not matters raised in the industry submission.

15 I'm also an industry representative on the MPI National Directions team reviewing the aquaculture amendments intended to support the re-consenting of the bulk of marine farm licences across New Zealand in 2024. Through this process I am cognisant of the need to offer existing marine farms long term security of tenure, particularly if the RMA planning environment was to change.

20 I'm also a member of the Marlborough Working Group, which is a Marlborough Council initiative where community stakeholders have come together to work on the aquaculture provisions in the Marlborough Environment Plan (MEP) and I was a submitter on that Plan both in my professional capacity at Sanford and also as a private resident.

25 Through my long experience in aquaculture, my professional activities and my governance roles with Aquaculture New Zealand I am familiar, and interested in, aquaculture developments across the Marlborough region. My knowledge is up-to-date.

30 To avoid any doubt, I'm really proud of what's been achieved in Marlborough and the wealth and economic and social wellbeing that aquaculture has brought to our region. I believe that it is a privilege to farm in the public space and that all farmers have a responsibility to make their footprint lightly. I'm a strong advocate for marine farm etiquette, how farms behave on the water, in the community and with their neighbours.

35 This submission represents the view of Sanford and I am authorised to present this submission on behalf of the company and I welcome any questions as we go through this process.

40 The submission: While Sanford supports the relocation of the farms in principle, our support is provisional on two conditions, the effects on existing nearby farms is recognised and appropriately mitigated and

best practice salmon farming is achieved.

5 Declaration of interests: Sanford has an interest in the proposed
relocation that is a --greater than the -- that of the general public.
Sanford holds marine farming licences on sites immediately adjacent
to three of the proposed new NZ King farms. As such we are a near
neighbour with the potential to have our own farming entitlements
adversely affected by any relocation decisions. Sanford has owned and
10 managed a King Chinook salmon farm in Big Glory Bay, Stewart
Island since 1993. This farm was originally established in the mid-
1970s. The farm is BAP certified, and is part of Aquaculture New
Zealand's A-plus programme.

15 Sanford has a direct interest in salmon farming. Sanford is a
commercial trade competitor to New Zealand King in both domestic
and export markets. However, the proposed relocations do not affect
our salmon farms and our concerns relate to the effects on mussel
farming operations.

20 **[11.15 am]**

25 Precedent: Sanford supports the principle that Government will assist
farms to be re-located if subsequent regional decision makers via
RMA plans or consents deem that an established consented site is no
longer suitable, or if changes to environmental standards mean a farm
can no longer operate at -- in its consented area.

30 If at some time in the future Sanford finds itself in a similar position to
NZ King and, for example, we are unable to farm in Big Glory Bay, or
we were to seek to move one of our activities to more productive water
space, we would also look to Government to provide us with a similar
relocation package. We believe that it is advantageous if the Panel
made a positive supporting statement stating that a similar process
35 should be adopted across New Zealand where similar circumstances
may arise.

CHAIRPERSON: Have you seen our terms of reference?

40 MR CULLEY: You can always make a recommendation.

All the above said, Sanford supports Government's intent to find a
solution to what is a very difficult situation in Marlborough.

45 Changing environment: The Marlborough coastal marine area has
undergone significant change over the last 25 years as the aquaculture
industry in the region has developed and land use development patterns
have changed. Over this time Sounds communities have become less
tolerant of aquaculture in their bays. Recent decisions by council,

5 include a desire to move farms away from ribbon development around specific foreshore areas to extended ribbon development or, where appropriate, block development further out in the Sounds. This decision, and earlier ones not to allow double parking, ie. two rows of farms, both seem at odds with some of the recent -- sorry, some of the relocation sites that are proposed.

10 We note these new policy directions not because we want to challenge the proposed relocation sites that are being mooted, but because we are concerned that our own existing farms may have a tougher time during re-consenting if the six sites were to be granted as proposed without giving consideration to existing users.

15 Affected party: Sanford is an affected party. As several of the NZ King proposed relocation sites are adjacent to existing Sanford marine farming licences, the unintended consequence of double parking means that relocation proposal is likely to have more than a minor effect on our legally existing rights. There is a potential issue of reverse sensitivity in that if some of these site swaps proceed a possible
20 unintended consequence is that it may limit our ability to continue -- renew-- our existing marine farm licences. It is unreasonable that if granting NZ King these sites the Panel has permanently diminished the value of our own sites. We discuss this in more details below.

25 Sanford acknowledges that there is no simple way to resolve our concern that NZ King's right to undertake their salmon farming activities may come into conflict with our own rights to undertake an existing business nearby. In that regard, we will be requesting from
30 NZ King that they agree to a covenant of no nuisance including not making opposing submissions, complaining about the effects of our existing operations have on their relocated ones.

CHAIRPERSON: And how do you propose to secure that?

35 MR CULLEY: We could do that by agreement with New Zealand King or you could make it in the conditions on the site relocations.

As the largest owner of --

40 CHAIRPERSON: Have you talked to King Salmon about that?

MR CULLEY: We have talked about it. I don't think there's an issue is there, Mark?

45 CHAIRPERSON: You mean they're prepared to enter into some kind of an agreement with you that they won't oppose your re-consenting applications?

MR CULLEY: Correct.

CHAIRPERSON: All right.

MR CULLEY: It's a little bit about the marine farm etiquette that I was talking about earlier.

5

CHAIRPERSON: Yes. I think there's some legal issues related to that but we won't go into those now.

MR CULLEY: There are always legal issues when you're dealing with aquaculture, it must have --

10

CHAIRPERSON: It's not just aquaculture. Yes, precluding people from making submissions is -- there's some law on it anyway. I don't know if you've taken advice on that?

15

MR CULLEY: We have looked at it before and we still see there's an opportunity to work through that process.

CHAIRPERSON: Yes, okay.

20

MR CULLEY: As the largest owner of consented water space, farming Greenshell Mussels in the Marlborough Sounds, Sanford owns share farms, or contract farms, seven mussel farms, which are in close proximity to the -- three of the proposed re-location sites. We have the most concerns about sites 1 and 4, and some concerns with site 2, which I'll discuss shortly. Marlborough Salmon Working Group, MSWG; you've heard a little bit about that this morning from Mark.

25

CHAIRPERSON: Yes.

30

MR CULLEY: Sanford acknowledges the substantial work of this group, and it sits behind the relocation proposal. We support its membership being, "Local people making local decisions". It is disappointing, however, that experts were not co-opted into the MSWG to provide advice on technical fish farming issues. For example, while the group brought a wide range of skills, interests, and knowledge to the table, it's not clear what technical expertise was brought to bear in respect of fin fish farming, fish husbandry, including mortalities, and ocean hydrological flow requirements. The absence of technical people on the MSWG may have narrowed the scope of its discussion and proposed solutions. We raise this in case there is an opportunity to record learnings for future collaborative working groups in other areas around New Zealand.

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5 Industry growth; the relocation proposal seems to be viewed by MPI as providing for industry growth through more efficient use of space rather than creating new space and a bigger farm footprint. We understand why officials may be wanting to do this. Sanford's preference is to farm sites within the natural resource, site limitations, and simultaneously support industry to find space for new and additional farms. The proposed relocation plan is a reasonable solution for NZ King's problem, but is not a panacea for responding to the way the Resource Management Act landscape and natural character zoning has locked aquaculture out of much of New Zealand's sheltered coastal waters. This is a more fundamental issue that still needs to be resolved.

10 Many New Zealanders like to eat salmon, and we think they have a right to expect it -- that this salmon can be grown in New Zealand waters. So you've heard a little bit this morning from Mr Gillard to say that there are few sites in Marlborough that are left for growing salmon, but there are sites around the rest of New Zealand that they are, and they're impacted by the current Coastal Policy Statements around natural landscape and high natural character.

20 CHAIRPERSON: Well, there's nothing we can do about that.

MR CULLEY: I just need to make the point, Mr Skelton.

25 CHAIRPERSON: Yes, but we're bound by the New Zealand Coastal Policy Statement as it stands. You understand that.

MR CULLEY: Correct.

30 CHAIRPERSON: Yes. Thank you.

MR CULLEY: Changing the Marlborough Sounds Resource Management Plan, the Plan. We also note Government's proposal includes side stepping the regional planning process so as to allow NZ King applications to be lodged in areas where aquaculture is currently prohibited; Coastal Marine Zone 1. Sanford is a submitter to the Marlborough Environment Plan. Sanford supports the proposed restricted discretionary consenting process, but believes that those parties who can show they are affected, and have an interest greater than the general public, should also be provided an opportunity to be involved through any approvals processes.

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5 The Government proposal to ensure there is no overall increase in total
surface structure. The MPI consultation document proposes a trade-
off for the relocations, which would effectively stop any other fin-fish
farm being applied for in the Marlborough Coastal Marine Area. Sanford does not support the trade-off proposal, and we note that if -- it
10 was not a consensus decision of the MSWG. Sanford's view is that
new areas be considered on their merit. And the point that we'd like to
make there, in addition to what I've got written, is that technology
continues to move forward. We're currently trialling other means of
15 benthic mitigation, and as technology moves on that may become
appropriate, to put marine farms, salmon farms, in places where you
still have slow water flow, if that can be achieved. And Mark also
talked about some of the remediation issues that they're dealing with
this morning. So, I think technology's moving down a track that may
open up other potential in the future.

20 Proposed sites; of the six proposed relocation sites, the MSWG
recommended that three of these go to public consultation, Richmond
Bay, Horseshoe Bay and Tio Point. Sanford has existing Greenshell
Mussel farms next to the Richmond Bay site, which is site 6, and
Horseshoe Bay, site 5. See the attached map. The MSWG had
divergent views on the three other proposed sites; Blow Hole Point
north, which is site 1, Blow Hole Point south, which is site 2, and
25 Waitata mid-channel, which is site 3. Sanford is a close neighbour to
the Blow Hole Point north site and Blow Hole Point south, and you will
see that on the attached map.

MR CROSBY: Just before you go any further, and just to correct the record, I think
30 that at paragraph 41 where you've referred to Richmond Bay as site 6,
it's site 4, I think, isn't it?

MR CULLEY: My apologies, Mr Crosby.

MR CROSBY: Site 4?

MR CULLEY: You are correct.

MR CROSBY: Right. Thank you.

40 CHAIRPERSON: So you've got existing Greenshell Mussel farms next to site 4 and site
5. Is that right?

MR CULLEY: Site 4 and site 5, yes.

45 CHAIRPERSON: Yes.

- MR CULLEY: The proposed NZ King Salmon site 1, depicted in the above inserted box as the red box, is located seaward of three existing marine farms. Sanford owns the northern and southern farms, which are the two blue rectangles. The middle marine farm, shown in grey -- and is owned by someone else. These sites are shown to scale
- 5
- CHAIRPERSON: What is the scale, do you know?
- MR CULLEY: I'd need to check that for you, Mr Skelton.
- 10
- CHAIRPERSON: Yes, okay. And when you talk about sites, you're talking about --
- MR CULLEY: Marine farm licence --
- 15
- CHAIRPERSON: --- the licensed site?
- MR CULLEY: Yes. Marine farm licences.
- CHAIRPERSON: Yes. The overall site?
- 20
- MR CULLEY: Yes.
- CHAIRPERSON: Yes. Right.
- 25
- MR CULLEY: So, as seen on the map, the proposed NZ King site would double park. That is, if approved it will create a second row of farms. As far as Sanford is aware there are no areas in the Sounds where marine farms are double-parked sites. The Marlborough Council has been firm in its preference not to have double-park sites. Marine licence 8050 and Marine licence 8058. So, Marine licence 8058 is the northern, top farm owned by Sanford. This farm is a 4.2 hectare site. The consent will expire in 2019. And marine licence 8060 is the southern farm, also owned by Sanford. The farm is 3.2 hectare site, and is -- likewise, the consent will expire in 2019. Both farms are average producing marine farm growing Greenshell Mussels. So we rate our farms on a scale, and it's an average -- they're average farms.
- 30
- 35

5 Both have been identified by SPATnz as a nursery farm for their selective breeding programme. And SPATnz is a \$28 million Primary Growth Partnership project which Sanford has with Government under the PTP process. So, when that project was identified we looked at sites that were particularly good at having little bio fouling and good performance for the hatchery spat, so it's quite important to that project that those conditions, criteria, are maintained for us. The estimated value of these farms is \$100,000 a hectare, which means the two farms combined estimate a value of around \$750,000. The farms lie within 10 400 metres from a High Natural Character Zone, and the 400 metres from an Outstanding Natural Landscape. We note that in the NZ King Salmon EPA application their proposed Papatua farm was adjacent to, but not inside, an Outstanding Natural Landscape. This farm was declined consent.

15 [11.30 am]

20 If the NZ King proposed relocation goes ahead, during the normal course of re-consenting our sites 8058 and 8060 are likely to be applied for in November 2018, and we would expect there will be some scrutiny of the double-parking issue. And a question is asked as to whether the bay has reached capacity. We know that the answer to this --

25 CHAIRPERSON: "We don't know".

MR CULLEY: We don't, sorry. We don't know the answer to this, but it should be the responsibility of NZ King to argue the cumulative effect of more farms, not Sanford's, as the existing or first user of the water space. We note that at the closest point the ML 8058 is 50 metres from the proposed 30 NZ King boundary, and at the closest point for the southern farm there's only 18 metres separating the consent boundaries. In other words, NZ King will be double parking right next to the existing farm. In our submission it is unreasonable if the three lawfully established marine 35 farms were to be penalised by the NZ -- by the decision to grant NZ King site 1.

We note that the MSWG did not have consensus on site 1. Sanford was advised by NZ King that this site was a possible contender for a swap shortly before the MPI document was released for consultation. So Sanford was not approached by the Marlborough Sounds Working Group for our view. There was insufficient time for us to take any action to mitigate the risk that the NZ King application places on us, for example, by lodging our own consents for renewal of the sites earlier. Sanford acknowledges that existing marine farms can more than likely satisfactorily co-exist, and probably have a symbiotic relationship to the salmon farm. The mussels will help filter the water, in effect, the feed off the nitrogen being discharged by the farmed fish. The biggest risk to the mussel farms is biosecurity, but may also potentially limit our ability to become organically certified, due to their close proximity to the salmon farm.

It is our submission that as part of coming to a decision on site 1, as the first step in the process, Marine Licences 8050 and 8058 both be re-consented for 30 years. We accept that this is beyond the power of the Panel, but they do have the opportunity to recommend to MPI as part of this process.

NZ King proposed Blow Hole Point site 2. Marine Licence 8060 as detailed above as being 18 metres from site 1, is located 200 metres north of the NZ King proposed site 2, off the northern end of Blow Hole Point. Like site 1, the MSWG did not reach consensus on this site. While this farm is unlikely to negatively impact us during re-consenting, 200 metres is not a very large separation distance and we need more certainty that future re-consenting will not be impacted by the relocation proposal.

We also note that in Sanford's written submission we stated that the company had a share farm arrangement with a farm on the western side that is 1,480 metres south of Blow Hole Point site 2. Since lodging our submission this share arrangement has not been renewed and the reasons for not renewing are unrelated to the NZ King relocation proposal.

The Marine Licence 8206 is a Sanford owned farm that is located 160 metres from the proposed NZ King new site 4. This farm is 3.5 hectares in area and the consent expires in 2030. This farm is a good producing farm with better than average crop rotations and I would estimate the value of this farm is about \$130,000 per hectare. In the MEP as proposed the adjacent land has been identified as an area of high natural character. In our view, ML 8206 is a similar double-parking issue to Marine Farms 8050 and 8058.

It is our submission that as part of coming to a decision for site 4, as the first step in the process Marine Farm Licence 8206 should be

re-consented for 30 years. And, again, we accept that this is beyond the power of the Panel, but you do have the opportunity to recommend this to MPI as part of this process.

5 Marine Licence 8205 is a Sanford share farm, which is located 855 metres from the proposed NZ King site on the other side of the small peninsula; the highest point is approximately 600 metres. In the attached map it is shown as a green rectangle. The farm is 6.98 hectares in area and is due for renewal in 2035.

10 Similar to Marine Farm Licence 8206, the farm performs better than average and would have a similar value. The farm lies within 400 metres of a proposed in the MEP for high natural character; the marine farms lies within 400 metres of this area. It is our view that this farm is sufficiently far enough away and is separated by a peninsula that there is unlikely to be a re-consenting issue.

15 Marine Licence 8209 is a Sanford share farm; the licence is owned by a group of five people. The western edge of this farm is 300 metres from the proposed new salmon farm. In the MEP proposal the adjacent land has been identified as an area of high natural character. This is a 4.5 hectare site that is due to expire in 2024.

25 Marine Licence 8212 is a marine licence owned and farmed by Sanford. This farm is shown on the above map as the blue box; it is a 3 hectare farm; the consent must be renewed in 2029; the boundary of our farm is 1,260 metres from the proposed NZKS site 5. In our view, the value of MR LEES: 8212 is around \$225,000. In the MEP this licence is located within 400 metres of the outstanding natural landscape and 400 metres from a very high natural character area. This site could benefit from the salmon farm location and be more productive, while noting our earlier comments around biosecurity.

30 Marine Licence 8207 is currently a Sanford contract farm shown on the map above as the purple rectangle. The share farm contract will cease for commercial reasons at the end of this season. The reason for not renewing is unrelated to the NZ King proposal and was a decision made by the consent owner.

35 Cumulative effects/adverse effects. Sanford is concerned that the MSWG has not recognised the potential for cumulative adverse effects on existing users as a result of landscape and the natural character saturation. This can be mitigated by first user rights taking priority during re-consenting or when that is not possible, compensation such as NZ King buying the farms.

45 We also note that in several of the proposed relocated salmon farm sites there may be a possibility that the area is a habitat for king shag feeding

and foraging. While many coastal areas are feeding grounds for marine life, when taking into account the cumulative effects on these species, it should not disadvantage existing growers and marine farm owners. As stated earlier, it is the responsibility of the potential new entrant to show how cumulative effects have been addressed. Should we or any other existing grower be disadvantaged by the planned NZ King relocations, we seek government assurance that our first-user rights are recognised and we are compensated with alternative space.

Environmental management. Sanford has discussed with NZ King why their relocation proposal, as it currently stands, does not include regular and planned fallowing of sites. As we understand it, MSWG has taken the view that the benthic impact directly underneath farms, due to stocking and feed levels, will never be at the level where the sites would require fallowing as set out in the Marlborough Best Practice Guidelines. Sanford was not one of the parties around the table that worked on the Marlborough Best Practice Guidelines. We do not know all the details behind what information was tabled and why, however fallowing of sites is often standard industry practice in finfish farming around the world for both benthic management and for fish health. We are surprised that fallowing is not being proposed, provided for in the NZ King site relocation proposal. We accept the geography of tides, currents, winds, benthos and the nitrogen cap and stocking rates might suggest that fallowing on the new farms is unnecessary or inefficient. Notwithstanding that, we accept that fallowing may be surpassed by new technology and innovation that means there are other ways to get the same environmental outcome. Notwithstanding local variances, Sanford's view is that finfish-fed aquaculture sites benefit from rest and recovery.

Navigation. We have reviewed the navigation consequences and we don't see the proposed new sites creating any issues. So we have 11 boats out on the water, 70 crews, 70 people running on our boats, 4 days on, 4 days off. They have viewed all the new proposed sites and none of them have raised any issues of concern around --

CHAIRPERSON: That's your 11 boats, is it?

MR CULLEY: Yes.

CHAIRPERSON: And you have 70 people?

MR CULLEY: 70 people in the marine farming division, yes.

CHAIRPERSON: And they don't see any problems, right.

MR CULLEY: So they are out in the Sounds, 4 days on, 4 days off, so rotating crews.

CHAIRPERSON: Yes.

5 MR CULLEY: So just in conclusion, Sanford appreciates the opportunity to provide comment on the proposed relocations sites. We have set out our concerns and the proposed solutions for mitigation of these, but in principle we are in support for the relocation concept. Thank you.

CHAIRPERSON: Thank you, Mr Culley. Do you have any questions?

10 MR DORMER: Thank you, if I may. Mr Culley, you say at paragraph 46 that the Marlborough Council has been firm in its preference not to double park sites. What's the basis of their apparent opposition?

15 MR CULLEY: You are probably better to --

MR DORMER: Better to ask them?

20 MR CULLEY: -- verify that with them, but I guess it's what I would call creep of existing area, and they have a concern; their intention is trying to move marine farming off the shore. And often when you have ... their intention is that they are going out to 300 metres and at the moment some farms are as close as 50 metres to the shoreline, so they're just trying to move that off. They don't want people then to park in those spaces and fill up the space. So it's about recreational access; it's about making sure that the shoreline, people have access to the shorelines, from my perspective, but you should make sure you check with them.

25 MR DORMER: Yes. I have not heard of their opposition to that before, but from what you say it makes sense that they might have an issue there. Thank you very much.

30 CHAIRPERSON: Ron?

35 MR CROSBY: Just a few matters, Mr Culley. The first query I had was paragraph 51, the Papatua farm; that's the one known as Pig Bay, is it?

MR CULLEY: Yes.

40 MR CROSBY: In Port Gore, right, so that was the one granted consent by the EPA but was declined by the Supreme Court?

MR CULLEY: Yes.

45 MR CROSBY: Okay, thank you. Just on the map just before paragraph 67 and your reference in paragraph 67 to Marine Farm Licence 8209, which colour is that one, so paragraph 67?

MR CULLEY: I was reading from a black and white one, so that made it a bit creative

for me, sorry, Mr Crosby.

MR CROSBY: Oh, have you got a colour one?

5 MR CULLEY: I'm just looking now.

[11.45 am]

10 MR DORMER: I think it's likely, is it not, that your farm is the bottom one.

MR CULLEY: Yes.

MR DORMER: That's 300 metres away.

15 MR CULLEY: Yes. What I'll do is I might just check the maps, I've brought the maps with me, so I'll check that one. That one there, that's the blue one. It's the blue one down the bottom.

20 MR CROSBY: But you've referred to the blue one as being 8212 and you've referred to that at paragraph 69, and then at paragraph 72 you referred to Marine Farm Licence 8207 as being the purple one. So what is 8209, where is that? Is that the green one, is it?

25 MR CULLEY: I'll have to check that for you, Mr Crosby, sorry.

MR CROSBY: It actually says the western edge of this farm is 300 metres from the new salmon farm, which is actually the purple one which is the one you describe as being 8207.

30 MR CULLEY: I've got a bigger picture.

CHAIRPERSON: Have you not got a copy of what you were reading to us?

35 MR CULLEY: I have, yes, your Honour.

CHAIRPERSON: Well, page 8, Proposed Horseshoe Bay site 5.

40 MR CULLEY: Yes, I'm just trying to remember the numbers, because I don't have them indelibly within my memory, you see.

CHAIRPERSON: Oh, right.

45 MR CULLEY: So the problem is what I'd like to do is just go back and check that for you, if that's okay?

CHAIRPERSON: Yes, if you could.

MR CULLEY: Because I don't have them indelibly printed in my memory.

- CHAIRPERSON: No, I can understand that.
- MR DORMER: In your appendices you've got Horseshoe Bay there.
- 5 MR CULLEY: Yes.
- MR DORMER: And it appears to be a larger version of the same map.
- 10 MR CULLEY: Correct.
- MR DORMER: And what I thought was the 300 metres down to the blue one is wrong.
- MR CULLEY: Well it says it's 1,200 metres to the blue one.
- 15 MR DORMER: Yes.
- MR CULLEY: Yes.
- 20 MR DORMER: And 300 metres is wrong.
- MR CULLEY: 300 metres to the purple one.
- MR CROSBY: Look, I think to save time, Mr Culley, if you could just ensure that you
- 25 get us an accurate map with the particular numbers, if you would.
- MR CULLEY: Yes, I think what we'll do is we will put the site numbers on there for you, if that's all right?
- 30 MR CROSBY: Yes, that would be good.
- CHAIRPERSON: If you could give it to the hearings facilitator.
- MR CULLEY: Yes, it would be easier to do that, so I'll just send an email version
- 35 across.
- CHAIRPERSON: Thank you.
- MR CULLEY: Cool.
- 40 CHAIRPERSON: Give it to the hearings facilitator.
- MR CULLEY: Yes.
- 45 MR CROSBY: Where you have referred to - and you have done it at a couple of locations - but if I take you to paragraph 78, the last sentence, Mr Culley.

- MR CULLEY: Yes.
- MR CROSBY: You're talking about the possibility for new technology and innovation possibly replacing the need for following.
- 5 MR CULLEY: Yes.
- MR CROSBY: Is that this waste capture concept that's been looked at?
- 10 MR CULLEY: So that's waste capture or remediation of the seabed. There are a number of things being looked at; vacuum cleaning and I think Mark also touched on it; the challenges around that, what do you do with the waste?
- 15 MR CROSBY: Yes.
- MR CULLEY: One of the trials that we are doing at the moment is collecting the solids with a funnel, effectively, with a capture.
- 20 MR CROSBY: A waste capture?
- MR CULLEY: A waste capture that you are only removing the solids using an airlift technology, so there is opportunity to do that. It's completely at an experimental point at this point, but I mean that's what happens when people, scientists and engineers get their heads together. So what concerns me is that if the MPI proposal says there's no -- you know, the trade-off is for no further marine farming space, in the future that may be mitigated by this technology, so you might be able to farm on low flow sites.
- 25
- 30 CHAIRPERSON: Well, then you would change the Plan, wouldn't you?
- MR CULLEY: Yes, that would be a process you would have to go through obviously.
- 35 CHAIRPERSON: So it would be taken care of that way.
- MR CULLEY: Yes.
- MR CROSBY: I've got no further questions.
- 40 CHAIRPERSON: Thanks, Mr Culley.
- MR CULLEY: Okay, thank you.
- 45 CHAIRPERSON: Thank you for coming. Now, Nikau Cove Limited, Rose Beauchamp.
- MS BEAUCHAMP: So I'm Rose Beauchamp.

CHAIRPERSON: Yes, could you position yourself in front of the microphone, please.

MS BEAUCHAMP: Go closer to this, yes. I'm not part of any industrial or protest group or any kind of like.

5

CHAIRPERSON: Well, you've got a statement here?

MS BEAUCHAMP: Yes, that's right.

10 CHAIRPERSON: Would you be good enough just to read that?

MS BEAUCHAMP: Yes, I will.

CHAIRPERSON: Thank you very much.

15

MS BEAUCHAMP: I would just like to say that my motivation for being here is because Nikau Cove is a restoration environmental group and we live in the Kenepuru and we are concerned about the Kenepuru Sound, if there is more farms placed in the Pelorus. And I'm also here on behalf of the many millions of consumers, as there are features of salmon that I believe are not health for the consumers. And it's hard for me to imagine that five years after the detailed work which we did in 2012 with scientists, environmentalists and with a great deal of money and time, that we are once more in this situation of arguing that further salmon farms might not be a good idea.

20

25

The journalist scientist Don Staniford recently, in the Guardian Weekly, speaks of salmon farms in Scotland and Canada as "toxic toilets, reservoirs for infectious diseases and parasites", warning that diseases are rife, waste is out of control and the use of chemicals is growing. This scenario is being risked right now in our backyard, the Marlborough Sounds.

30

So a lot of people have obviously talked about waste and it was Ben Knight who gave me the figure from Cawthron Institute.

35

CHAIRPERSON: No, I'm sorry, would you please just read your statement.

MS BEAUCHAMP: Cool, okay.

40

CHAIRPERSON: Yes.

MS BEAUCHAMP: One salmon farm produces nitrogenous waste equal to sewerage from a town of 55,000 people - Ben Knight, Cawthron Institute, 2 June 2012. In the Sounds now there are reports of mountains of salmon faeces and excess feed under farms. Dairy effluent on this scale is not allowable on land; why should salmon farms pollute the sea in this way? The composition of the feed, salmon feed used by King Salmon from

45

5 Skretting Australia is or was in 2012/2013, 93 per cent abattoir by-products including blood meal from cattle, sheep and pigs and feather meal from poultry processing - Consumer Magazine of 2013. Plant materials such as faba-bean meal are added for extra protein; fish oil is added for omega-3 and astaxanthin, a carotenoid pigment to give salmon the distinctively pink flesh colour - hardly a natural diet for salmon.

10 The marine environment and sediment. The Kenepuru Sound is under stress with the load put on it from the extensive mussel farms in this Sound. Its inlet and outlet is through the Pelorus Sound with a seven year flush cycle. There has been no data to show potential effects of nutrient loads within the sediment in the Kenepuru and wider Pelorus - again, Ben Knight, Cawthron Institute, June 2012.

15 Danny Boulton showed in his underwater filming, the ancient sponge forests in the Pelorus Sound, a tourist dream dive, but a relocated salmon farm anywhere near the Waitata Reach would destroy all that. And the southernmost snapper spawning in New Zealand, which is in Beatrix Bay, Pelorus Sound, and who knows what else, what other creatures. Industrial salmon farming is like a fire under the water.

20 Number 4, the vaccines and hormones. The use and presence of hormone-inducing agents (GnRH α) and testosterone (17-methyl testosterone) in farmed salmon breeding in New Zealand. There is no research on the impact of these on wild species. Again, that's from Consumer Magazine in 2013.

25 Don Staniford from the Guardian Weekly likened the use of chemicals in Scotland to control the proliferation of sea lice and disease in salmon farming as a chemical arms race in the sea, as the parasites and viruses become resistant to chemicals and antibiotics. There is a tenfold increase in the use of some drugs including emamectin which was previously banned. Staniford uses peer-reviewed science and the industry's own figures to back up his statements. With the even warmer water temperatures in New Zealand, this situation is likely to escalate.

30 Number 5, salmon diseases in New Zealand, which Mr Preece was talking about earlier. The continued mortality spikes over the past five years from King Salmon farms in the Pelorus Sound with the suspected cause being ISAV, the infectious salmon anaemia virus, which was detected by the Canadian accredited lab, a notifiable disease, and that was in 2012 in New Zealand King Salmon. This information was redacted by MPI as being commercially sensitive until 2014 when
35 Ombudsman Professor Ron Paterson in March 2014 exposed the truth. ISAV is the salmon virus that decimated the salmon industry in Chile. It would be interesting to know the truth about what is involved in the
40 2015 mortalities of King Salmon's farms.

5 Number 6, pet food from dead salmon. New Zealand King Salmon have stated that dead salmon are processed into pet food through freezing or heat. Warm seas kill salmon. Kakariki Proteins extract oils and protein before turning the salmon into dried pet and animal food - Marlborough Express, 13/3/15. Pet food is then marketed as a premium product, 100 per cent New Zealand made and is all natural, brand name Omega Plus. So that is in January of this year.

10 The key points that I would like to present on behalf of the group that I am speaking for is that first of all there is significant damage to the marine environment from salmon farming, particularly for the Kenepuru. Overstocked salmon farms in areas where the water temperature is too warm and there is insufficient flow plus New Zealand King Salmon's cavalier attitude to management guidelines, even those set internationally, and I refer to the ISAV presence, are cause for grave concern for future ecology and wellbeing of the Pelorus and Kenepuru Sound.

20 "Further salmon farms, together with the proliferation of commercial mussel farming, threatens the Pelorus Sound with irreversible damage."

25 That's from Raewyn Peart, senior policy analyst, Environmental Defence Society.

30 My second point, or our second point, is that the misinformation and false PR from New Zealand King Salmon, in my local New World, "Salmon from the pristine waters of the Marlborough Sounds" that was actually during a heavy mortality that I heard that stated has led to the growth of this unsustainable industry. Salmon swimming in their own shit, eating animal abattoir waste with added Omega 3 and artificial colour added; it doesn't sound so appealing. When the public learns the facts about salmon farming they will be outraged at being offered this so-called healthy protein option.

40 The third point I'd like to make is that lessons to be learnt from overseas experience. In Canada the public are advised to eat salmon once a month due to its toxicity. In Chile the decimation and collapse of the salmon industry from the presence of ISAV virus. The sea lice parasite cost the Scottish industry £300 million in trying to control it. The current Tasmania Macquarie Harbour debacle that's going on. The litany of horrors surrounding industrial salmon farming goes on globally.

5 In summary, we ask that the advisory board or panel take full responsibility together with the Marlborough District Council, MPI and residents for safeguarding a healthy and biodiverse marine environment with marine reserves and active recovery of degraded sites of former salmon farms. We reject the proposal that any further salmon farms should be located in the Pelorus Sound.

[12.00 pm]

10 CHAIRPERSON: Yes, thank you very much, Mrs Beauchamp.

MS BEAUCHAMP: Thank you.

15 CHAIRPERSON: Have you any questions?

MR DORMER: Just confirming that very last point. You are against all of the proposed relocations?

20 MS BEAUCHAMP: Yes, I am against. We are against salmon farming per se so we're -- but here I am.

MR DORMER: So you're against salmon farming per se rather than being specific in your condemnation of any of the sites?

25 MS BEAUCHAMP: Well, I think that to relocate further on greater volume of area in the Pelorus Sound would actually be the death of the Kenepuru Sound because it's so dependent on the water from the Pelorus, yes. But I work as a performer and I just haven't had time to kind of go through all the detail of this but I think if there's a volume of farms put in there
30 the Kenepuru Sound will die. It's a very shallow -- as I said, it's a 7-year flush through it and I think it's extremely threatened by this proposal, yes, to relocate.

35 MR DORMER: Thank you.

MS BEAUCHAMP: Yes, thank you.

CHAIRPERSON: I would just like to know a little bit more. I see about your Nikau Cove Limited is obviously a registered limited --

40 MS BEAUCHAMP: Yes. We're a company.

CHAIRPERSON: You're a company.

45 MS BEAUCHAMP: Yes.

CHAIRPERSON: And the shareholders are the names set out at the top of your statement?

MS BEAUCHAMP: Yes, that's right.

CHAIRPERSON: Yes. And what does the company do?

5 MS BEAUCHAMP: We're a conservation company, a company for conservation, and the Queen Charlotte Track crosses our land so we have some trading because of the track crossing our land.

CHAIRPERSON: So the Queen Charlotte Track --

10

MS BEAUCHAMP: Yes.

CHAIRPERSON: -- you're a company --

15 MS BEAUCHAMP: We're one of the private landowners of the Queen Charlotte Track.

CHAIRPERSON: You're a private landowner in Kenepuru, is it?

MS BEAUCHAMP: The Kenepuru Sound, yes.

20

CHAIRPERSON: And the Queen Charlotte Track crosses your land?

MS BEAUCHAMP: That's right.

25 CHAIRPERSON: Yes, and what do you do on the land?

MS BEAUCHAMP: We create covenants. We look after the rats and the pests. We've got the last lowland forest that's left in the Kenepuru Sound.

30 CHAIRPERSON: So you've got this piece of land in which you are carrying out --

MS BEAUCHAMP: A conservation programme.

CHAIRPERSON: -- a conservation programme. Is that right?

35

MS BEAUCHAMP: Yes, a project.

CHAIRPERSON: A project.

40 MS BEAUCHAMP: Yes.

CHAIRPERSON: Right. How big a piece of land is it, do you know?

MS BEAUCHAMP: 200 acres.

45

CHAIRPERSON: 200 acres?

MS BEAUCHAMP: Yes.

CHAIRPERSON: Yes. And do you have any rural activities, farming activities, on that land?

5 MS BEAUCHAMP: No, it's very steep.

CHAIRPERSON: Right.

MS BEAUCHAMP: Yes. So it's a conservation programme, yes, or project, yes.

10

CHAIRPERSON: Can you tell us whereabouts in Kenepuru Sound that is?

MS BEAUCHAMP: Nikau Cove.

15 CHAIRPERSON: Yes, I'm sorry, of course it is, yes.

MS BEAUCHAMP: Nikau Cove is about a kilometre from Portage.

CHAIRPERSON: Yes. Is it on the same side as Portage, is it?

20

MS BEAUCHAMP: It is, yes. That's right. It's a very shallow sound so it's sandy and --

CHAIRPERSON: Yes, I understand that.

25 MS BEAUCHAMP: Yes.

CHAIRPERSON: Yes, all right. Thank you very much.

MS BEAUCHAMP: Thank you. Thank you to you.

30

CHAIRPERSON: Thank you for coming.

MS BEAUCHAMP: Yes.

35 CHAIRPERSON: Laurence O'Connell.

MR O'CONNELL: Thank you. Can I get someone just to put the PowerPoint on for me please? Thank you.

40

Thank you very much. Afternoon, gentlemen. My name's Laurence O'Connell. I'm a resident in Kenepuru Sound and I've decided to present my submission to you in slide form and I'm hoping that I can operate a non-Apple computer.

5 From the summit of Mount Stokes it's impossible not to be awed by the majesty of the Marlborough Sounds and I'm privileged to live here. So up front I admit to nimbyism. I'm proud of it. My submission is mostly about Pelorus Sound because I care. I want my descendants to be able to love the place as much as I do.

10 I'm not anti-aquaculture. I'm an optometrist, medically trained. I love salmon. I commend salmon to my patients for eye health and New Zealand King Salmon have many fine products. Mr Lees and his team from MPI, despite my contrary views to theirs, have been nothing but helpful and polite and engaging. It's just that I like our environment more.

15 So we have the proposal to relocate six salmon farms but MPI's own documents indicate better environmental outcomes are not possible. Where you see things in quotes from me they're direct quotes from documents or public record. This is an example of mission creep, particularly with respect to the Supreme Court decision in the Environmental Defence Society, Sustain Ourselves v New Zealand
20 Salmon and with one farm declined and three farms allowed, which was due to that being the maximum the environment can absorb.

CHAIRPERSON: So what was the mission creep quote from?

25 MR O'CONNELL: I'll come to that. Mission creep is extension from the present situation.

CHAIRPERSON: Yes, I know what it means but you said it's a quote from somewhere. You said "that's a quote".

30 MR O'CONNELL: Sorry, after this.

CHAIRPERSON: It's not a quote?

35 MR O'CONNELL: Okay. Mission creep is --

CHAIRPERSON: I know what mission creep is.

MR O'CONNELL: -- an aphorism. Okay.

40 CHAIRPERSON: I know what it means but you told me that where you put things in quotes --

MR O'CONNELL: After this point. Once I get into --

45 CHAIRPERSON: So this is your --

MR O'CONNELL: That's mine.

CHAIRPERSON: Okay.

MR O'CONNELL: I accept that, sorry.

5 CHAIRPERSON: Okay.

MR O'CONNELL: Apologies. Really that means it's nothing more than contempt of court addressed up in the cheap suit and tie.

10 Dan Lees said:

"The community said additional salmon farms are not appropriate to the Marlborough Sounds. We have to manage the farms we do have."

15 That's a direct quote. Most of the stuff that you'll see, despite the fact that I've read thousands of pages, will come from two papers. This one here and this one here and these are the documents that MPI and NZKS are relying upon.

20 A big part of this I think was John Key's saying:

25 "The challenge for New Zealand King Salmon was gaining flexibilities to move their farms more regularly to help with the environmental impact. Salmon farms are hugely profitable. The hectare returns from salmon farms is [that's what he said] thousands of times greater than dairy farming [thousands of times]. We want aquaculture farms to be successful. We need to work on that taking into account the wishes of the community."

30 The wishes of the community were expressed by the Supreme Court decision. So the former Prime Minister appears to be advocating nomadic --

35 CHAIRPERSON: Sorry, how do you work out that the Supreme Court is the voice of the people? The Supreme Court interprets the law as laid down by Parliament. It does not reflect public opinion at all. That's not the role of a court.

40 MR O'CONNELL: Fair comment. I accept that. I'm a layperson here.

CHAIRPERSON: But when you use expressions such as you just did --

MR O'CONNELL: There was a Board of Inquiry as well.

45 CHAIRPERSON: Yes, but they are specialist bodies.

MR O'CONNELL: Yes.

CHAIRPERSON: They're not representing the will of the people or the voice of the people any more than our role is to do that.

5 MR O'CONNELL: Sir, you're quite right. I accept that, thank you.

10 But what the Prime Minister appears to be advocating is nomadic aquaculture, where New Zealand King Salmon is allowed to desecrate not only the environment but also the local flora and fauna by their industrial-scale farming and then moving on to ruin more of our beautiful region. The options to expansion, of course, are stay with current permitted production and they'd have to adhere to their consents and the required environmental monitoring or the options of farming offshore or in onshore contained areas, which are being explored more overseas. I've heard already today a mention of benthic cleaning. I think that's another option.

15 Grant Rosewarne has said, and again a quote in the Marlborough Express:

20 "Costs will generally be higher offshore because of the expensive infrastructure required and the higher cost of harvesting, feeding and net cleaning, but we have a product that's thousands of times more productive than dairy farming."

25 Yet dairy farmers have to start from purchasing the land and their stock and then working within the environment. He also said, and this again is a direct quote:

30 "Organic matter from salmon is benign and on many occasions the seafloor is mud."

35 Here's a picture from a Sunday Star Times article - good to see Elena McPhee making the front page - of the floor of the Waitata Reach. This is as of last Sunday. It's not mud.

CHAIRPERSON: I'm sorry, I can't read that. Where is it? Where is that photograph taken from?

40 MR O'CONNELL: It's the floor of the Waitata Reach.

CHAIRPERSON: The floor of the Waitata Reach?

MR O'CONNELL: Yes.

45 CHAIRPERSON: Well, the Waitata Reach is a pretty big place.

MR O'CONNELL: That's right.

CHAIRPERSON: Whereabouts? Do you know whereabouts?

MR O'CONNELL: I don't know where it is, sir. No, sorry.

5 CHAIRPERSON: You've just taken it out of the newspaper?

MR O'CONNELL: I have taken it out of the newspaper.

10 CHAIRPERSON: Yes, okay.

MR O'CONNELL: Now, offshore and onshore costs are borne by New Zealand King Salmon. Inshore, the costs are borne by the local environment. They're breaking our eggs to make their omelette and leaving us to clean up the mess. So which part of the following information from MPI's own papers, own documents, own commissioned material indicate Mr Rosewarne's supposed benignity?

15 Mark Gillard in a letter to MDC:

20 "Implementation of best management practice for seabeds was a challenge that would be solved by 2024."

We'll get up to speed by 2024. Dan Lees:

25 "It's not acceptable to wait until 2024 to implement best practice guidelines across all the farms."

30 "Three Marlborough Sounds salmon farms are in the spotlight after failing to meet environmental guidelines. [That was a headline] Cawthron noted pollution under the pens and seabed enrichment caused by fish waste falling on the seabed and uneaten fish food."

And aren't we lucky it's benign? Cawthron again:

35 "Farms at Forsyth, Ruakaka and Otanerau met the terms of the resource consents but were still not running in a way that enables them to meet agreed best practice management guidelines."

40 Reported in the Marlborough Express:

"Clay Point had minor non-compliance for exceeding permitted enrichment levels."

- 5 Crail Bay, despite being described as two sites designated for replacement, are non-existent. I think the last time fish from this farm was caught, I was there when the Neill boys of Crail Bay caught salmon by the tonne following a net breakdown and that was about 2011. But - and this is critical - Crail Bay feed loads are still included in the data given by New Zealand King Salmon to NIWA for baseline studies, Crail 1 and 2, 1,645 tonnes of feed May 2017, October 2018. Now, if you look in the NIWA document, page 19, figure 1.1.
- 10 CHAIRPERSON: Is that one of the technical reports --
- MR O'CONNELL: Yes.
- CHAIRPERSON: -- that we find on the MPI website?
- 15 MR O'CONNELL: Yes, sir. Yes.
- CHAIRPERSON: You don't happen to remember the name of it, do you?
- 20 MR O'CONNELL: Yes. It's one of the two that I have illustrated in the slides earlier on in the presentation.
- CHAIRPERSON: Oh, right.
- 25 MR O'CONNELL: Yes, it's the NIWA presentation.
- CHAIRPERSON: Okay.
- MR O'CONNELL: All right?
- 30 CHAIRPERSON: Yes.
- MR O'CONNELL: This is important. Marlborough District Council's Peter Jerram:
- 35 "If this was a land-based operation, it would be called over-stocking. We call it running hot. When the enrichment gets too high, it fouls the environment. Effectively, there are too many animals on each site. If this was a dairy farm operation, it would be shut down."
- 40 Jerram questioned:
- "If there was room in the Sounds to move farms into high-flow sites, shifting farms to Tory Channel would spread the problem over a bigger area."
- 45 Cawthron at Otanerau:

"Excessive enrichment, major alert response under the guidelines and forcing the company to improve enrichment levels within two years."

Major problems. Aren't we lucky it's benign?

5

Cawthron at Ruakaka:

"Both pen stations sediment chemistry had deteriorated and sulphide levels were extremely high. Minor alert requiring a management response."

10

Forsyth Bay:

"Poor performance, excessive enrichment. Seabed under the salmon pens heavily polluted and almost devoid of life."

15

Don't know what's benign about devoid of life, "As at low flow, Forsyth is open to Waitata Reach and Allen Strait". It's certainly not impaired in openness in any way. It's like the Waihinau, which despite being slated for relocation is apparently not yet a concern with respect for benthic pollution, but at Waihinau, "Millions lost after warm seas kills salmon". Grant Rosewarne said:

20

"It's a multi-million dollar problem to solve. There's no primary pathogen."

25

We've just heard about the virus condition. Direct quote again:

"None of the 300 salmon diseases present internationally are in New Zealand. Feed changes were no help after successive years [successive years] of high mortality. We will have to reassess our site utilisation and Pelorus temperatures are unsuitable for the fish three months of the year."

30

Climate change is going to make that worse and it's going to increase risk. Rickettsiae have been identified at Waihinau and in scallops at nearby Ketu Bay. Rickettsiae are an obligate intracellular parasite, spread by arthropod vectors like lice or seabirds.

35

40

[12.15 pm]

5 There's no way you can control your biosecurity of seabirds because of
the open nature of the nets. These are the same gram-negative family
as chlamydia and Q fever, which is endemic in Australia, the northern
parts. Treatments are the tetracyclines and chloramphenicol. These
are toxic drugs which are teratogenic, in other words, you can't feed
them to children, you can't feed them to women. If they accumulate in
the system of the fish and the fish are then sold, you're running the risk
of causing antimicrobial resistance, just as it's happened in Australia
with chickens and vancomycin, causing inability to treat significant
10 diseases like MRSA.

15 Caged fish are an incubator. They're the battery hens of the sea. The
biosecurity risks then spread to the local benthic population and the
local fin fish population through the water column and they're a serious
risk to the mussel industry. The mussels are a local native. They don't
harm the environment. I know people don't like them. I don't mind
them at all, but that's a real concern for the mussel industry.
Pathogenically, these Rickettsiae are similar to viruses. They're a very
small organism. Sulphonamides are contraindicative - and I've
20 repeated myself - with tetracyclines and chloramphenicol.

25 Is this environmentally sustainable? Again, this is the picture from
Sunday Star Times and that's something I see every Easter in our bay
in the Kenepuru Sound, every Easter for 30 years I've seen dolphins.
They just regularly come there and it's just the most wonderful sight.
I've got family in England, Australia and they're here, they come and
see us because they have the ability for us to take them out and every
time we see dolphins and it's just magic.

30 Now, the NIWA document, "relocate" is used as a convenient
shorthand. Convenient shorthand:

35 "The annual feed load limits to the potential new sites that we have
been asked to consider are often larger than those of any of the sites
which the relocated farms replace."

Convenient shortcut, alternative facts, lies:

40 "Inputs being considered are up from 25 to 300 per cent above current
levels, depending how much is granted, up to an extra 65 tonnes of food
a day."

5 These are the sites. Importantly, as you've just heard from the previous speaker, at Nikau Cove, Pelorus Sound has a marked estuarine circulation. The fresher lower-density near surface water flows outwards and the saltier, denser water, the seabed waters, flow inward from Cook Strait. Ammonium stemming from the decaying fish faeces and uneaten feed, both of which sink rapidly to the seabed, tends to flow towards the inner part of Pelorus Sound. Any particulate or biomass increases induced by the farm derive nitrogen and will often be greater some distance away from the source farm.

10 Now we're starting to talk about the consequences, and for chlorophyll, you read algal blooms. All of the scenarios considered by NIWA yield Pelorus Sounds concentrations of total nitrogen higher than at present times. During the summer, algal blooms are greater. Changing the location of the farms has little impact upon the particulates, nitrates in the immediate vicinity of the farms and algal blooms will kill with neurotoxins, will with light reduction and with oxygen deprivation.

20 This is the nitrogen cycle. There's two points to this slide. A nitrogen cycle isn't particularly complex. I could give you some really good, difficult nitrogen stuff, talking about ganglion cell fibres in the optic nerve related to glaucoma and its cellular apoptosis. This is simple nitrogen pathology. Nitrites/nitrates are the long-term ones. Ammoniums tend to be disappeared and they float out because they're soluble but they're very, very dangerous for fish.

30 One of the things here is that when I was teaching optometry, I used to tell people, "You're pretty safe if you know what you're doing. You're still pretty safe if you know what you don't know. But if you don't know what you don't know, then you're very, very dangerous".

35 In this document, this page where "Data was not found in the literature for net effect of mussel production" because mussels are thought to have a significant reduction, amelioration effect, if you like, on the waste produced by salmon, the two slides that I'm showing you - this one and the next one - show contradictory viewpoints. So nobody really knows what's going on. This one says, "Net effect of mussel production is deemed neutral". In this slide, the net effect from mussels using nitrogen in the Pelorus is minus 266 tonnes.

40 CHAIRPERSON: Where do these come from?

MR O'CONNELL: Again, these are all on the MPI website.

45 CHAIRPERSON: From NIWA's reports?

MR O'CONNELL: From NIWA's reports.

CHAIRPERSON: Yes.

MR O'CONNELL: Okay.

5 CHAIRPERSON: The NIWA report on what?

MR O'CONNELL: On the water column quality in the Pelorus Sound.

10 CHAIRPERSON: The water quality?

MR O'CONNELL: Yes, water column and also the nitrogen paper.

MR DORMER: Those are the two you referred to?

15 MR O'CONNELL: The two I've referred to, yes.

MR DORMER: Right at the beginning?

20 MR O'CONNELL: Yes. There's a lot of papers, but most of the stuff comes from these two:

25 "Within the Pelorus, the far-field changes are most prominent in the central and inner parts (Tamaki Strait and, more especially, Mahau Sound and Kenepuru Sound). In some simulations, noticeable changes can arise in the coastal environs also around the mouth of the Pelorus (eg, Admiralty Bay and Port Gore)."

30 Mid Kenepuru is 50 kilometres' distance from the Waitata Reach and yet the environmental quality standards state that the water quality should not be affected more than 250 metres, demarcated by the boundary of the fish farms' nets. Fifty kilometres is 200 times greater than the prescribed law.

35 The water has been monitored by the Marlborough District Council and in the Pelorus in general currently 520 measurements less than 1 per cent of the chlorophyll levels have exceeded 5 milligrams of chlorophyll per cubic metre. But in the Kenepuru and in Mahau, the rates are at 5 per cent. These are vulnerable. They are sensitive to increase:

40 "... we infer [say the authors] that relocation and expansion of the fish farms is unlikely to induce frequent exceedances ..."

45 But consent conditions forbid an unspecified, statistically significant change towards a eutrophic state from a natural oligotrophic/mesotrophic state.

This is the point about the baseline studies. When New Zealand King Salmon - where it's come from, I have no idea - are putting in figures that say, "We're already putting in 1,645 tonnes of food and thus elevating the nitrogen level", it's a false statement.

5

CHAIRPERSON: Why?

10

MR O'CONNELL: Because they're not doing it. The farms don't exist. They're not there. They haven't been there since 2011. The superstructures are on the foreshore at Elie Bay. So for them to be claiming to be feeding in there, someone's made a typographical error or an alternative fact.

15

MS DORMER: What are the advantages to King Salmon of producing that alternative fact?

20

MR O'CONNELL: The advantages to them are that the baseline studies, which are elevated because of -- the Pelorus inner sounds have higher risk of toxic algal blooms because their water circulation is less. They flush slowly; the water hangs around; it's shallower and warmer. It's better conditions for algal bloom. So what you have is a native state which is vulnerable. When the claimed native state is including excess enrichment --

MR DORMER: Which doesn't happen.

25

MR O'CONNELL: -- which hasn't happened, then you are underestimating the impact of future feed-loading.

MR DORMER: I see. Can you just stop for a minute?

30

MR O'CONNELL: Yes, sure.

MR DORMER: When I was a young boy, I was always told if the judge thinks it's worth writing down, speak so slowly that he can, please.

35

MR O'CONNELL: The consequences of that are that the scientists are working with faulty input data. I have no complaint about the scientists; their work is quite exceptional. But you'll also note that they do comment, if you read that document, about the difficulty of getting accurate data and they're having to rework their models because they were being fed inaccurate information. This is Mr Broekhuizen - he may be Dr - and Hadfield, their document. They also say:

40

"There is a clear positive (near linear) correlation between the total feed load and the resultant [total nitrogen] concentration increment."

45

The more food that goes in, the higher the nitrogen load in the environment. Then:

"... benthic denitrification rates can become suppressed when organic loadings to the seabed become too high. If ... over a sufficiently large fraction of the region ... a positive feed-back loop ... exacerbates the progression towards eutrophy."

5

"... a positive feed-back loop." So the longer there's compromise to the environment, the greater the damage to the environment.

10

For remediation, it's a two-stage process, firstly chemical where the accumulated waste is first mineralised, turned to nitrates and eventually back to free nitrogen. Only when that's complete can biological remediation occur and again "Biological remediation may never completely occur". So we have all those compromised sites where biological remediation may never completely occur. That's the basis of why I call it nomadic aquaculture; you destroy an area and move on and farm somewhere else. On page 70, they say:

15

"Our model does not consider dissolved oxygen, but ... does consider chlorophyll and organic detritus (which will consume oxygen as it decays)."

20

The importance of oxygen can be demonstrated by placing a plastic bag over your head.

25

CHAIRPERSON: This is again the NIWA report, is it?

[12.30 pm]

30

MR O'CONNELL: Yes. The nutrient load: if all their consents are granted, it's equivalent to the untreated sewage from 180,000 people. Those are Rob Schuckard's figures. I worked it out at 135,000 people; his was a bit more spectacular so I've used it. That's the sewage load equivalent in terms of the impact and untreated sewage being poured into the Sound and the resultant amount of damage that can be done as a consequence of that. Sure, there's no E coli in it, but there's a lot of low concentration but high volumes of some very toxic organophosphate material and heavy materials. I won't eat fish from Asia because I've seen where it's come from and this is running the risk of the same thing.

35

40

Dr Diggles of DigsFish in his report states:

"Each farm area ['area'] should be separated from neighbouring areas by 45 kilometres."

5 The farms proposed in the Waitata Reach are one area. For healthy management from a disease and environment perspective, the whole area should be fallowed every third year. You've got two areas, Pelorus and Queen Charlotte, both proposed to produce 10,000 tonnes of fish each year. If you're talking about the commercial impacts and you're going to fallow as best practice requires, then your production's going to be either 20,000, 20,000, zero tonnes or 20,000, 10,000, 10,000 tonnes. Or do they want another region so they can go 20, 20, 20?

10 Is this the thin end of the wedge? I think you have to consider that very strongly. I know MPI when I talked to them were saying, "Well, they have to manage this under best practice guidelines". "... have to manage it under best practice guidelines", but there's no sign in the plan of fallowing.

15 CHAIRPERSON: There's what?

MR O'CONNELL: There's no sign in their plans of fallowing.

20 CHAIRPERSON: Who's Dr Ben Diggles?

MR O'CONNELL: Dr Diggles? Again, his report is on the MPI website. He's a fish scientist.

25 CHAIRPERSON: He's what?

MR O'CONNELL: A fish scientist.

CHAIRPERSON: Right.

30 MR O'CONNELL: So I'm starting my summary. Effectively, environmental degradation from existing salmon farming in the Marlborough Sounds is factually established. The relocation and like-for-like semantics that we see in the media are alternative facts, convenient shorthand, lies to achieve expansion. Dan Lees at the Waitaria drop-in said, "But there's nowhere else to farm salmon". Hadfield and Broekhuizen said that:

35 "... none of the alternative scenarios will lead to frequent breaches of water quality threshold ..."

40 The risk is relative to nitrogen load, but in their conclusion:

45 "If ... adverse changes in water quality within the innermost parts of Pelorus should be minimised ... all of the alternative scenarios are unacceptable ..."

CHAIRPERSON: Who said that?

MR O'CONNELL: Again, this is Broekhuizen and Hadfield, the NIWA paper, "all of the alternative scenarios are unacceptable ..."

CHAIRPERSON: Broekhuizen ...?

5

MR O'CONNELL: And Hadfield.

CHAIRPERSON: Who?

10 MR O'CONNELL: Hadfield.

CHAIRPERSON: Sorry.

MR O'CONNELL: Again, it's that NIWA paper.

15

CHAIRPERSON: It's the NIWA paper.

MR O'CONNELL: It's the NIWA paper.

20 CHAIRPERSON: Right.

MR O'CONNELL: Other issues: MPI as a Government agency already has a Treaty partner which has been denied agriculture sites in the CMZ1 zones. NZKS is a majority-owned overseas company. Ignoring iwi in the event of approving New Zealand King Salmon applications is like taking your mistress to the dance while your wife stays home to do the dishes.

25

Sharks: They'll be attracted to - there's a paper on this as well - but unable to access salmon. So what's the impact on migratory species like dolphin and snapper which have to run that Reach of that 20 kilometres or so, that gauntlet? What's the risk to local fish populations, the king shags and to nearby mussel farm divers? We've been hearing about mussel farms within 200 and 300 metres. It's a 30-second swimming time for a shark that's hungry. Bronze whalers are known to accumulate round these farms and that runs a real OHS risk for mussel farmers.

30

35

In the event of fish disease causing loss of the blue cod or the snapper fishery or the loss of dolphins, what do you think's going to happen to the local tourist economy? It's going to be decimated. The biggest concern, however, is biosecurity. Disease from these farmed fish has a huge potential impact on mussels. Toxic algal blooms can first shut down harvesting and later on kill all the mussels. If I was a mussel farmer, I'd be really concerned about the amount of fish being proposed to be farmed in the Pelorus.

40

45

CHAIRPERSON: We've just heard from a mussel farmer. He's not concerned.

MR O'CONNELL: I don't know if he's read all the documents.

CHAIRPERSON: Well, he isn't, is he?

5 MR O'CONNELL: No. Biosecurity: like I said before, you're not going to stop seabirds. You're not going to stop sea lice. Disease will spread. That's inevitable and we've seen that, as reported already in Scotland and in Chile.

10 Perceived benefit to the economy: I commend to you the analysis by Trevor Offen of the Kenepuru Sounds Residents' Association. He's a tax accountant, which contradicts the more optimistic - and he calls 'wildly inaccurate' - studies commissioned by New Zealand King Salmon. I have no question about King Salmon's value to the community in terms of what it produces locally in both Blenheim and Nelson. They're an important part of the economy, no question.

15 I wrote this one. Then I thought a better analogy is a diabetic patient because I see diabetics all the time. Diabetes is a blinding disease and when you first see people with early retinal bleeding, we advise them very strongly, "Give up your smoking, give up your drinking, get healthy, lose weight, eat properly and you will live a normal life with your eyesight". We don't tell them "Change to a better quality of booze and smoke more cigars and don't worry about doing any exercise. Then we'll give you some needles in your eyes until your legs fall off and hopefully you'll die before you actually go blind".

20 So the proposed situation where they want to expand a bit and then check it out and expand a bit is very much like diabetes and how it works. It's too skewed towards NZKS. They've got a month to do their bookwork and then four months to shut down. Meanwhile, my elderly, my beloved neighbours who take their dog down to the beach each day, if there's a toxic algal bloom it's only got to go in that water and open its mouth and it's dead.

25 30 35 If NZKS and MPI are so confident they're not impacting on the environment, they should have no problem posting a huge bond. They should quantify impacts across all the potential adverse effects and they should be large enough to be an incentive to develop true sustainability.

5 This is a nexus, gentlemen. You protect the Sounds for future generations or be architects of the environmental degradation and ecologic demise. A decision to develop can't be undone and one way or the other, history will record what we collectively - and you particularly - do here long after we're all gone. Only if you can look in the mirror and say "This abuse: a resource would be permissible in Wellington or Waitemata", can you allow it? We shouldn't be treated as second-class citizens in this jewel of the crown of New Zealand. Realistically, under the Resource Management Act you should just close the sites not meeting agreed conditions. But I regret to say I'm afraid this process is window dressing a predetermined outcome.

15 Aquaculture is desirable. Now if New Zealand King Salmon and MPI could enlist tangata whenua and the public to move to land-based, close-contained water systems, I would advocate for it. I would invest in it and I'd applaud their success. Yes, it would cost more money but, gee, think of the benign fertiliser sales that will rocket. There are so many talented people in the MPI, King Salmon and NIWA and Cawthron. We have the ability to do that. It's being done overseas; we should be doing that constructively here.

Thanks for your time.

25 CHAIRPERSON: Thank you, Mr O'Connell. Have you got any questions?

MR DORMER: No, thank you. No.

MR CROSBY: I've got no questions.

30 CHAIRPERSON: Yes, thank you, Mr O'Connell. Thank you for coming.

The next person we're going to hear from is Neil McLennan. All right?

(off mic conversation)

35 MR MCLENNAN: I have come with a summary for my submission and I can read that and then answer questions or I can read my whole submission.

CHAIRPERSON: No, that'll be fine --

40 MR MCLENNAN: Quite happy? Fine.

CHAIRPERSON: -- because we read your submission anyway, Mr McLennan.

MR MCLENNAN: Fine. This summary accompanies my submission on the potential relocation of salmon farms in the Marlborough Sounds. I oppose the salmon farm relocation because I believe it is inappropriate for MPI to be involved in partisan resource allocation and for existing Marlborough District Council planning rules and normal RMA planning procedures to be undermined.

5

10

In addition, I believe NZ King Salmon Limited have not demonstrated responsible management of their existing low-flow salmon farming sites. It is inappropriate to swap suboptimal, low-flow sites for high-flow sites and to focus on business viability ahead of environmental suitability.

15

A detrimental impact on recreational fisheries, water quality and tourism development within Pelorus Sound is likely if salmon farm relocation is permitted.

20

Salmon farming is undertaken for private company benefit, exclusively occupies public water space and involves serious environmental disruption with offsite effects currently poorly understood.

25

Salmon farms need to be located in a socially and environmentally suitable location.

I believe there are suitable areas for finfish farming outside of Pelorus Sound and Queen Charlotte Sound where salmon farming might be undertaken.

30

Additional studies of offsite salmon farm environmental impacts and alternatives to near-shore farming are required before any new finfish farms are established.

[12.45 pm]

35 CHAIRPERSON: Yes, thank you, Mr McLennan. Just so we've got a better idea of what you're saying, where do you live?

MR MCLENNAN: I live in Elaine Bay.

40 CHAIRPERSON: In Elaine Bay, yes.

MR MCLENNAN: That's Pelorus Sound.

CHAIRPERSON: Yes, and so what motivates you to offer submissions on this?

45

MR MCLENNAN: I have degrees in earth sciences and in aquaculture. I am currently a --

CHAIRPERSON: Can you tell us a bit more about that? What are your degrees?

MR MCLENNAN: In earth sciences from Waikato University and in aquaculture.

CHAIRPERSON: You have a degree in earth science from Waikato.

5

MR MCLENNAN: Waikato, and in aquaculture from the University of Tasmania. They are indicated in my lengthy submission. I am also a tourism operator as I hire sea kayaks from Elaine Bay and I run the DOC campground at Elaine Bay. I also own property in Elaine Bay and I have a motorboat and fish the outer Pelorus area.

10

CHAIRPERSON: Right, thank you. Have you got any questions?

MR DORMER: I'm struggling how to frame it most suitably. You don't like the idea of swapping suboptimal sites for high-flow sites?

15

MR MCLENNAN: Correct.

MR DORMER: Why is that?

20

MR MCLENNAN: I think if I buy a bad car, I can't go along later and swap it for a quality car. I see no difference. I think it sets a dangerous planning precedent to think that you can horse trade bad for good. I just don't like the concept.

25

MR DORMER: How about the argument that some of the sites at present are causing greater environmental damage than would be caused if the new sites were opened up?

30

MR MCLENNAN: I accept that low-flow sites are suboptimal. I still think the damage has been caused at the suboptimal sites and it can be rectified simply by destocking or by removing the waste that has already accumulated on the seafloor. So to think you're going to create an environmental benefit by closing a polluted site and going to an unpolluted site, it's just false logic.

35

MR DORMER: I see your point, yes. Thank you. Thank you, sir.

CHAIRPERSON: I had a question. Now I can't remember what it was. Why do say that it's inappropriate for MPI to be involved in what you call "partisan resource allocation"? I don't understand that.

40

- 5 MR MCLENNAN: To me, it is wrong for a Government agency to be promoting one company alone. There is only one beneficiary from MPI's involvement in this particular application. Basically, I believe Government should be producing rules and laws that benefit or advance a number of parties and it is wrong for the Government to be promoting just New Zealand King Salmon. Where Government has got involved, say up in Coromandel, it has introduced an offshore marine farming zone and that offshore marine farming zone is available for numerous parties to apply for. I think that --
- 10 CHAIRPERSON: If this proposal by MPI was simply to make provision for further salmon farming sites that were then up for allocation, you wouldn't have a problem with that?
- 15 MR MCLENNAN: No, not at all. To me, if I was, let's say, an overseas investor, I would see MPI's involvement in this particular relocation proposal as getting very close to cronyism where basically Government is backing one party exclusively and I think that's a very Third World approach to resource allocation.
- 20 CHAIRPERSON: Even though there is a provision in the legislation that allows that to happen?
- 25 MR MCLENNAN: That's quite right and --
- CHAIRPERSON: On the basis that it's in the national interest.
- 30 MR MCLENNAN: Quite right and because New Zealand King Salmon is a major salmon producer in New Zealand, then I can understand MPI's sympathy for New Zealand King Salmon. But I still think it sets a very dangerous precedent when we only have one party likely to benefit from basically MPI's involvement in this particular case.
- 35 CHAIRPERSON: But you understand the tests that have to be applied --
- MR MCLENNAN: Quite right.
- CHAIRPERSON: -- in terms of the legislation?
- 40 MR MCLENNAN: Quite right.
- CHAIRPERSON: If those tests are met, what's wrong with that?

- 5 MR MCLENNAN: I still think that normal RMA planning procedures are perfectly adequate to address King Salmon's needs if only King Salmon steps outside its pursuit of the lowest cost, least risky environmental suitable site. If King Salmon was prepared to move out of Pelorus Sound and Queen Charlotte Sound to offshore sites, then I believe its approach could be supported.
- 10 CHAIRPERSON: But you've heard their evidence on that, have you, or you've read their evidence on that?
- MR MCLENNAN: I have read MPI's arguments.
- CHAIRPERSON: They say that's at least ten years away --
- 15 MR MCLENNAN: They won't move --
- CHAIRPERSON: -- if they --
- 20 MR MCLENNAN: -- if they don't have to. Basically, if you look at a ladder of the opportunities for salmon farming, I would say farming in Pelorus Sound is the least costly, easiest to service. The next step up is probably farming salmon in the outer Sounds and more restricted, confined embayments where pollution may not spread into a larger area. The next step up above that is creating finfish farming estates, which would be offshore and away from popular areas. That ladder of development involves increasing costs for the salmon farmers. But from an environmental and from a local social perspective, probably the offshore, away-from-habitation approach is the preferable way to go.
- 25
- 30 CHAIRPERSON: All right, thank you.
- MR CROSBY: Sorry, I was just going to ask: if you were here this morning, do you dispute the evidence that we've been receiving that the technology is just not there to give the certainty on an offshore location to be able to resist rogue waves, cyclone events, that sort of climatic risk?
- 35
- MR MCLENNAN: I would dispute that the technology does not exist.
- 40 MR CROSBY: Can you point us to any offshore locations?

MR MCLENNAN: Yes, I could. Of course, we have oil rigs offshore. It's a matter of investment. It's just more costly and really we haven't had the figures from either King Salmon or from MPI to show what the additional costs are of moving from a protected area into a more exposed area. Really, to make any sensible decisions you need those costs. Business needs the costs to make the step. MPI - and I believe you also - need those costs to determine whether what has been asked for is reasonable. It's going to involve increased costs for King Salmon to move to less sheltered waters.

MR CROSBY: Different issue, but I understood you to respond to Professor Skelton that in terms of the six sites if there was an open allocation system to the public, that would meet your concerns. Is that a correct understanding of the response you gave?

MR MCLENNAN: No. I believe none of the six sites are suitable. Five of the sites are near-shore and one's proposed in the middle of the channel. But I believe that all sites should be moved out of the Sound.

MR CROSBY: I misunderstood your --

CHAIRPERSON: It was the process, I think.

MR MCLENNAN: Yes.

CHAIRPERSON: To be fair to Mr McLennan, I think that was in the context of the process rather than the --

MR CROSBY: Right.

CHAIRPERSON: Yes, he sees this as favouring one person.

MR MCLENNAN: Yes, I see it more as a zoning issue rather than site by site issue. I believe that --

CHAIRPERSON: The problems of course with the open allocation approach that you advocate is that of course people may from the public take up an allocation but then find that purchase by purchase, the same result arises.

MR MCLENNAN: I'm sure that they probably will. King Salmon has established a monopoly simply because it has the most efficient hatchery at this stage. It has the size and the experience to advance its monopoly position or it has a major salmon-producing position.

MR CROSBY: All right, thank you.

CHAIRPERSON: Thank you, Mr McLennan, and thank you for coming.

Now Mr Black?

- 5 MR BLACK: I've lost track of where we got up to in the list of people being called.
- CHAIRPERSON: Yes, I'm sorry. We're a bit late, but I think we can deal with you before we break because I want to be ready for someone else at 2.00 pm.
- 10 MR BLACK: Right.
- CHAIRPERSON: So we'll hear from you now, Mr Black.
- 15 MR BLACK: I have two sets of comments. Excuse me: I'll just have a glass of water. The first deals with the question of whether or not the Minister has power to regulate particularly for zoning.
- CHAIRPERSON: Are you a lawyer?
- 20 MR BLACK: I was, many years ago. Somewhat rusty these days.
- CHAIRPERSON: So you were in practice?
- MR BLACK: Yes.
- 25 CHAIRPERSON: How long ago?
- MR BLACK: I gave it up about 2003.
- CHAIRPERSON: Right.
- 30 MR BLACK: Either the Government or --
- CHAIRPERSON: Where were you practicing?
- 35 MR BLACK: It was Brandon Brookfields, back in the 80s.
- CHAIRPERSON: Right.
- 40 MR BLACK: To put it in context, Jim Wiltshire and I worked very closely together at the same firm.
- CHAIRPERSON: I think we all know him.
- 45 MR BLACK: Yes.
- CHAIRPERSON: Yes. So, all right. Well, you're really making a submission now on law.

MR BLACK: It is a submission on the law and that's all you'll hear from me on the law.

CHAIRPERSON: Yes.

5

MR BLACK: I put in the submission early and it wasn't a terribly good one, I felt, but I wanted to raise the point because I felt it was an important one and I was rather hoping that if I had got it wrong someone might tell me before I came and made an absolute Charlie of myself, but it seems to have gone down like a lead balloon. But you'll have another one that says "First comment, second addition". That is where I redid the argument.

10

CHAIRPERSON: Yes. Well, we've got that with us now.

15

MR BLACK: I think that's a little tidier.

CHAIRPERSON: Yes.

MR BLACK: Well, looking at the regulations -- perhaps if I just run through it.

20

CHAIRPERSON: Yes, I think if you read it it's probably most efficient.

MR BLACK: Yes, and if we --

25

CHAIRPERSON: You don't have to read all the quotes and everything.

MR BLACK: Well, if we start at point 3 --

30

CHAIRPERSON: Yes.

MR BLACK: The option put forward in the Discussion Paper is for the Crown to make regulations under section 360A to create a new zone for salmon farms. In relation to this, the draft regulation proposes to amend the Marlborough Sounds Resource Management Plan by: identifying areas or zones, that is the CMZ4 zone; specifying classes of activity, salmon farming being a class of activities to take place in the zone; allowing activities that would otherwise be prohibited by section 12; and incorporating an allocation requirement.

35

40

CHAIRPERSON: Yes.

MR BLACK: Now, the changes described in the first and second bullet points, I would say do not fall within the scope of section 360A as they do not relate to the management of aquacultural activities for the reasons following. If that proves to be the case then any other amendment is otiose, at least until there is a purpose and area to which it relates.

45

[1.00 pm]

5 Now, section 361A empowers amendment to provisions in a Regional Coastal Plan that relate to the management of aquacultural activities in the coastal management area. The key words: "relate to the management of aquacultural activities". Now, aquacultural activity is defined in section 2 quite narrowly as "any activity described in s.12 for the breeding, hatching, cultivating [and so on] of fish" if that "involves the occupation of a coastal marine area". Thus there must be an activity, for a purpose, in a place.

10 Now, the activities are described in section 12 as being those various things, the key one of which is (b), to "erect, reconstruct, place, alter" -- basically build a salmon farm.

15 CHAIRPERSON: Yes.

MR BLACK: Now, none of the activities described embraces zoning or the specifying of the class of activities, that is restricted use, discretionary use or whatever, that may take place in a zone. Therefore it doesn't bring those matters within the scope of the definition of "aquacultural activities" and accordingly they cannot be the subject of amending regulations.

25 CHAIRPERSON: Read the last part of section 12(1), from the words "unless expressly allowed".

MR BLACK: Yes.

30 CHAIRPERSON: What does that mean?

MR BLACK: First, yes, "unless expressly allowed by a regional coast plan" --

CHAIRPERSON: Which is was is proposed here, isn't it?

35 MR BLACK: But it is within an area and I am saying that there is no power to define that area. You see, the matters that are set out beforehand are permitted unless they are expressly allowed but the zoning of the area is not one of those matters that falls within any of that.

40 CHAIRPERSON: That would be the process of allowing in a regional plan, wouldn't it?

MR BLACK: No. If we go back, we're looking to -- perhaps if I went back another step on this. The provision for aquaculture has usually involved two things: the definition of the area and then a description of what happens in that area. We can go back to the Aquacultural Management Plans which preceded this. There was power under section 165 to define an area and then there was the description of what happened in that area. There were two things.

5

10

Now, getting the zoning, the definition of that area -- the question is: where does that fall within the activities -- what brings that within the discretion-making power? It is not an aquacultural activity. It is not an activity at all. It is an abstraction.

CHAIRPERSON: Go on.

15

MR BLACK: Carrying on, yes.

CHAIRPERSON: I think you could usefully say, "A contrary view might be". You're down there.

20

MR BLACK: Yes. The contrary view might be that what is proposed could be described as permitting, say, the erection of a marine farm for a limited purpose - salmon farming - within a limited area, and that would achieve the same result. However, that would create neither a class of activity nor a zone. The existing zone, CMZ1, would remain unchanged and there would still be neither purpose nor location in the Regional Plan to which the activity could attach.

25

30

Section 12(2) prohibits any person from occupying the common marine or coastal area without authorisation. While that provision may enable amendment by -- this is just cutting out section 12(2) as doing anything.

CHAIRPERSON: Yes.

35

MR BLACK: While that provision may enable an amendment by regulation to provide allocation rules, occupation that does not relate to an allowed activity is pointless.

40

Subsection 3 doesn't help, and that is dealing with, "No person may carry out any activity in a coastal marine area ... in a manner that contravenes ... a rule in a coastal plan". That doesn't help because it doesn't restrict any activity, it simply restricts the manner in which the activity may be conducted. If the activity itself is not restricted, it too falls outside section 12.

45

- 5 So, the problem with the zoning. The regulation, section 360A, makes perfect sense in that it relates to the activities that take place once you have a zone established. An allocation is made to someone within that zone and that person then starts carrying out the activities referred to. So it is a lower level in the hierarchy than the zoning is.
- CHAIRPERSON: The section 360?
- 10 MR BLACK: Yes. No, section -- the activity. The construction of a marine farm. It is that sort of actual activity that may be regulated, not the definition of the area within which it may occur.
- CHAIRPERSON: Right, okay. So?
- 15 MR BLACK: And then I just cover off the question of the definition opening with the words -- that the interpretation opens, "Unless the context otherwise requires" and suggest that the context doesn't otherwise require. On the contrary, the words used, "the management of activities", point to the management of an actual action, what is done, not to the framework within which it is done.
- 20 CHAIRPERSON: Yes, okay. I think we understand - well, I am - what you're saying.
- MR BLACK: Yes.
- 25 CHAIRPERSON: Carry on.
- MR BLACK: It has kept me awake at night.
- 30 CHAIRPERSON: Has it? That's unfortunate.
- MR BLACK: Just trying to get my head round it.
- CHAIRPERSON: I'd hate to think you were awake at night over this.
- 35 MR BLACK: I'm afraid the brain gets slower as it gets more antique.
- MR DORMER: Now you're going to reflect on us and keep us awake at night, are you?
- 40 CHAIRPERSON: You'll sleep well tonight, then, Mr Black.
- MR BLACK: I will.
- CHAIRPERSON: Good.
- 45 MR BLACK: Now, what do we do? That's not terribly important. And of course the same issue applies to the banning of marine farms, whether a power to manage includes a power to prohibit. I mentioned that --

- CHAIRPERSON: I don't think you need to go any further than that.
- 5 MR BLACK: No. The Māori Commercial -- it was really a view to put to the Ministry rather than to this Panel. It always seems to have been the elephant in the room in this sort of activity.
- CHAIRPERSON: Yes.
- 10 MR BLACK: Right. Well, the second paper was from my wife and myself. Unfortunately Annette couldn't get here. She wanted to but that turned out not to be possible. Do you have plans of --
- CHAIRPERSON: Wait a minute. Have you got another piece of paper?
- 15 MR BLACK: There is another. It is second comments.
- CHAIRPERSON: Have you got that?
- 20 MR DORMER: No.
- MR CROSBY: No.
- FEMALE SPEAKER: No, I don't think ...
- 25 CHAIRPERSON: We haven't got that.
- MR BLACK: Are they readily available?
- 30 FEMALE SPEAKER: I wouldn't be able to get them before the end of the week.
- MR DORMER: Is this the actual comment that you lodged?
- MR BLACK: This is the comment that I want to make on -- yes.
- 35 CHAIRPERSON: Was that the one you lodged with the MPI?
- MR BLACK: Yes.
- 40 CHAIRPERSON: Earlier?
- MR BLACK: No, the second one. The first one I lodged was an unsatisfactory version of the one I've just gone through.
- 45 CHAIRPERSON: You've changed --
- MR BLACK: Replaced that.

CHAIRPERSON: Right.

MR BLACK: But there was a second submission under the same number, I think it was 124 as well.

5 CHAIRPERSON: Well we need to have copies of that.

MR BLACK: Yes. Would this be a good time for a lunch break so they could be done?

10 CHAIRPERSON: How many pages is it?

MR BLACK: It is nine, nine pages.

15 CHAIRPERSON: Nine pages.

MR BLACK: Yes.

CHAIRPERSON: We weren't going to get through that in half an hour, were we?

20 MR BLACK: No, that's true.

CHAIRPERSON: No. Yes, we'll read the comment if it's being lodged.

25 MR BLACK: Yes, I'll work out the few points.

CHAIRPERSON: You just briefly describe now --

MR BLACK: Yes.

30 CHAIRPERSON: -- what it covers and what you want to say, without going into too much detail because we'll look at that separately.

MR BLACK: I was outlining what my interest in it was --

35 CHAIRPERSON: Yes.

MR BLACK: -- and my wife's interest. She's from Havelock originally.

40 CHAIRPERSON: Yes.

MR BLACK: We have a batch a couple of 100 metres from the Waihinau Bay salmon farm and we've been going down there going on for 60 years.

45 CHAIRPERSON: Yes.

MR BLACK: We're into the fourth generation now and we just like the Sounds and have quite a lot of knowledge about the developments that have taken place in that area, some of which is relevant to what's going on here.

5 CHAIRPERSON: Right.

MR BLACK: And then I summarised very quickly at the back what we are seeking and I only address the outer area of Waitata Reach, the Blow Hole Point in mid-Waitata sites because they're the ones that I know about in the area that I'm familiar with.

10

CHAIRPERSON: There's the two Blow Hole Point sites --

MR BLACK: Yes, and the Waitata one.

15

CHAIRPERSON: -- and the Waitata mid-Reach.

MR BLACK: Yes, so don't want them.

20 CHAIRPERSON: Don't want them.

MR BLACK: No.

CHAIRPERSON: No.

25

MR BLACK: I would like to see protected from development a strip running down the Waitata Reach down to Elaine Bay because that is a really valuable area for boating in. It's quite remote. I place an emphasis on remoteness and seclusion. I don't comment on the Richmond and Horse Shoe Bay sites because I don't know about them.

30

CHAIRPERSON: No, all right.

MR BLACK: I argue for the closing of priority and the closing of the Waihinau Bay farm on the basis of the development that's taking place, the residential development that's taking place in the area, plus its use as a boat-mooring bay and I support the decision of the Board of Inquiry.

35

CHAIRPERSON: Right. All right, good, thank you very much.

40

MR BLACK: Now, would you like me to come back to develop any particular points in this?

CHAIRPERSON: No, we'll read it --

45

MR BLACK: Right.

CHAIRPERSON: -- for ourselves. You can be assured --

MR BLACK: And I think I've got all the points.

CHAIRPERSON: You can be assured of that.

5

MR BLACK: Yes. If I could cover two points that I didn't have in here --

CHAIRPERSON: All right.

10 MR BLACK: -- and I should have perhaps had them, they're both of a historical
nature. One was prompted by the comment in Mr Hudson's landscape
report, which was to the effect that -- he minimised the landscape value
of the Blow Hole Point sites on the basis that the land was in pasture
and pine trees. Now, I was just going to point out that when we first
15 went down to Waihinau Bay the entire area was farmed.

Now the farming stopped on the south side in about 1970 and there's
now a pretty impressive cover of Manuka, Kanuka forest. It stopped
later on the north side and we're getting the development of that sort of
20 forest. I mention that just to make the point that what the landscape
looks like now in terms of its cover is less important than where it's
going and it's absolute rubbish for farming, so it's going to go in this
direction as time goes on. They used to top-dress it back in the early
25 days out of a DC3; that was the first thing.

The second one related to the fishing changes down there; that it has
just changed enormously. We used to fillet the fish down on the shore
and you get eels coming up to get their share. There were paua just
round the corner from the batch. There were scallops within the bay
30 and so on it went. The fishing there today is just a pale imitation and I
would really like to see that given an opportunity, the same effort going
in to restoring that, as we're getting into commercial activities.

Mr Gillard made a very fair point when he said the damage to the
35 scallop fishery, salmon farming would be minimal. It's caused by
dredging, land use, the whole shooting box and he's right and salmon
farming would be minimal. But it's yet another thing accumulating on
top and I'd really like to see things being given a bit of a rest.

40 **[1.15pm]**

CHAIRPERSON: All right.

- MR BLACK: One last, very last is that landscape tends to look on what people look at. My interest is more in looking for remote and secluded places and the importance of that and those sorts of places are becoming fewer and fewer and fewer. In a way, I suppose, now that we've got two salmon farms in Waitata I'd like to see a line drawn there and so, look, from here on let's keep it remote, let's keep it as a place where we can just go to be on our own. Those are my main points, I think, sir.
- 5
- CHAIRPERSON: No, that's well made, Mr Black, and thank you very much.
- 10
- MR BLACK: Thank you.
- CHAIRPERSON: Have you got any questions?
- 15
- MR DORMER: No. I'm intrigued by the legal submission though and I do hope it doesn't keep me awake at night.
- MR BLACK: Well just agree with it then. If, by any chance, you do feel that a response is called for from the Ministry, might I perhaps have a chance to respond to that if ...
- 20
- CHAIRPERSON: No, you won't have any more chances --
- MR BLACK: In writing.
- 25
- CHAIRPERSON: -- to respond. But we may call for a response from the Ministry --
- MR BLACK: Yes.
- 30
- CHAIRPERSON: -- because it promotes the thing in the first place, you understand that.
- MR BLACK: Yes, yes.
- CHAIRPERSON: So it should have an opportunity to respond.
- 35
- MR BLACK: Yes. I must say I was quite surprised to reach the view that I did on it -
- CHAIRPERSON: Yes, yes.
- 40
- MR BLACK: -- which is why I put this submission in early.
- CHAIRPERSON: Yes. All right.
- 45
- MR BLACK: Well, thank you.
- CHAIRPERSON: Thank you very much, Mr Black, and thank you for coming.

MR BLACK: Thank you.

CHAIRPERSON: All right. We'll adjourn now until 2 o'clock. Thank you.

5 **ADJOURNED** [1.17 pm]

RESUMED [2.02 pm]

10 CHAIRPERSON: All right. This hearing is resumed and the next people we're going to hear from are the Guardians of the Sounds. I've got a note of Bill Foster but you're not Bill Foster.

MS PINDER: No, no, not last time I looked.

15 CHAIRPERSON: No, no.

MS PINDER: I'll introduce myself.

20 CHAIRPERSON: Yes.

MS PINDER: Is this on, yes?

CHAIRPERSON: Yes.

25 MS PINDER: It is, okay.

CHAIRPERSON: So, you are ...

30 MS PINDER: My name is Clare Pinder and Bill --

CHAIRPERSON: Clare ...

MS PINDER: Clare, C-L-A-R-E.

35 CHAIRMAN: Clare Pinder.

MS PINDER: Pinder, and Bill Foster and I jointly did the submission on behalf of the Guardians of the Sounds.

40 CHAIRMAN: Right. Okay. Now, unfortunately, I haven't got in front of me your original submission.

MS PINDER: I think I can talk to the main points of that.

45 CHAIRMAN: All right.

MS PINDER: I've got a little bit of that to help illustrate those points.

CHAIRMAN: Yes, all right, thank you.

5 MS PINDER: Just by way of background, the Guardians of the Sounds began with a large group of Queen Charlotte residents concerned about the effects of the fast ferry wash on the environment and we became an incorporated society in August 2000 to deal more effectively with issues associated with the Sounds. The Guardians became an officially recognised environmental action group through which residents could unite and be heard by local national and National Government.

10 CHAIRMAN: Yes.

15 MS PINDER: The charter covers all of the Sounds within the jurisdiction of the Marlborough District Council and the first objective of the society is to ensure that the natural environment, water quality, ecological biodiversity, safety of people and wildlife of the Marlborough Sounds and surrounds are managed wisely, both now and in the future.

20 CHAIRMAN: Are you an incorporated society?

MS PINDER: Yes, we are.

CHAIRMAN: You are.

25 MS PINDER: Yes.

CHAIRMAN: Yes.

30 MS PINDER: And a registered charity.

CHAIRMAN: Right, yes. Yes, I remember the ferry wash case.

MS PINDER: Yes, we won in the end.

35 CHAIRMAN: You did.

MS PINDER: Yes, but we --

CHAIRMAN: One of my former colleagues heard that case.

40 MS PINDER: Okay.

CHAIRMAN: Judge Treadwell.

45 MS PINDER: Yes, I remember Judge Treadwell well.

CHAIRMAN: Yes, I'm sure you do, yes.

MS PINDER: Yes.

CHAIRMAN: Yes. All right, what do you want to tell us today?

5 MS PINDER: Well, first of all, and I think I came briefly yesterday, it's not about
relocating farms; it's about six new farms. During the Board of Inquiry
the environmental and landscape thresholds at Waitata Reach with two
10 new consented farms were deemed to be at their limit and that there
would be an adaptive management process and that was agreed by the
Supreme Court as the right way to go about introducing these two new
farms in Waitata Reach.

CHAIRMAN: Well, is that what the Supreme Court decided or did it --

15 MS PINDER: No, the Supreme Court agreed with the Board of Inquiry that adaptive
management was the correct way to introduce the three consented
farms that came out of the Board of Inquiry.

CHAIRMAN: Yes, go on.

20 MS PINDER: To date there have been no monitoring reports on those two new
consented farms in Waitata Reach and there has been one report on the
Ngamahau Bay farm in Tory Channel.

25 CHAIRMAN: Yes.

MS PINDER: So, we haven't actually really started to introduce those new farms that
were consented through that Board of Inquiry process. Of concern of
30 the Guardians is that when that monitoring does occur it only covers
the detritus underneath the pen or the benthic degradation, it's not what
gets spread through the water column.

CHAIRMAN: Yes.

35 MS PINDER: If I can just bring you to this coloured map here because it shows all of
the Marlborough Sounds and if you have a look where it says Pelorus
Sound up the top there, if you sort of go up above where it says Pelorus
you will see the narrow entrance, the Waitata Reach, where these five
40 new farms are proposed to go in. That opening is the only opening into
all of this area of the Marlborough Sounds. So, you've got the
Kenepuru Sound, the Pelorus Sound, all the way down to Havelock;
they are all fed through that entrance way in the Waitata Reach.

45 CHAIRPERSON: So let me see this, 3 kilometres wide, yes. Yes, 2 to 3 kilometres wide
we were told today, point to point.

MS PINDER: I won't -- so I don't --

CHAIRPERSON: You don't dispute that?

MS PINDER: No, I don't dispute, I don't actually know the answer.

5 CHAIRPERSON: No.

MS PINDER: But what I am saying is that that is the water that feeds the rest of that area of the Marlborough Sounds.

10 CHAIRPERSON: Yes.

MS PINDER: High-flow sites distribute damaging nitrogen and phosphorous further than a low-flow site because that tends to just settle on the bottom.

15 CHAIRPERSON: Yes.

MS PINDER: So, I'll come back to some of the states of those areas in that Pelorus Sound area later. There's the third farm that was consented through the Board of Inquiry has not been there long enough to know what the impact of the three farms in Tory Channel in close proximity are going to do, let alone putting in a fourth farm. The Tory Channel is pretty interesting, it's somewhere that I've been involved with the last 30 years. The Tory Channel, it doesn't flush out into Cook Strait. The flushing happens coming through in Tory Channel and into the Queen Charlotte Sound.

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25
30 So, the phosphorous and nitrogen from those high-flow sites are flowing through Tory Channel and into Queen Charlotte Sound. I don't think that there's enough known about some of those tidal flows and the impact on the environment. On my question 5, paragraph 379 in the Board of Inquiry discusses the feed levels and the extrapolation of it being up to 400,000 people defecating in the sea. I'm not making it up. The Board of Inquiry agreed with those calculations.

35 Now, I have got a spreadsheet here, which I'll go on to explain. The top box is what the --

CHAIRPERSON: Sorry ...

40 MS PINDER: It's just the spreadsheet, okay.

CHAIRPERSON: Is this it?

MS PINDER: Yes, it is.

45

CHAIRPERSON: All right. Yes.

- 5 MS PINDER: The top box represents the new sites that are requested through this process and you will see there is the five sites in Waitata Reach and the one in Tory Channel coming up to tonnes per year of 24,600 tonnes of feed and that's at the maximum level. The middle chart represents the Board of Inquiry requested sites and you'll see a number of them are crossed off that they didn't actually get those sites. King Salmon got permission for 14,000 tonnes of feed and that was two in the Waitata Reach and one in Tory Channel. The bottom --
- 10 MR CROSBY: Sorry, just before you move off that --
- MS PINDER: Yes.
- 15 MR CROSBY: -- the White Horse Rock one was declined as well, wasn't it?
- MS PINDER: Yes, it was.
- MR CROSBY: So we should put a line through that.
- 20 MS PINDER: Yes.
- MR CROSBY: Yes, thank you.
- MS PINDER: Not my spreadsheet.
- 25 CHAIRPERSON: So, how many tonnes is it then? There's three farms.
- MS PINDER: Yes, so that was 14,000.
- 30 CHAIRPERSON: 14,000, yes.
- MS PINDER: Those were the three new farms that were consented through the Board of Inquiry process.
- 35 CHAIRPERSON: Yes, yes.
- MS PINDER: Then if I go to the bottom panel, the bottom piece, you will see that there's some low-flow sites and there's the five high-flow sites that King Salmon has already got consented, so that's three in Tory Channel and --
- 40 CHAIRPERSON: Sorry, yes, you've got them listed here, yes.
- MS PINDER: Yes, okay.
- 45 CHAIRPERSON: Yes.

- MS PINDER: That feed from those high-flow sites, the consented ones already, is 22,000 tonnes of feed. If King Salmon gets the additional six sites that it's asking for through this process, that's another 24,600 tonnes, which comes to 48,821 tonnes of feed at the maximum levels.
- 5 CHAIRPERSON: Yes, that's important though, isn't it, at the maximum level?
- MS PINDER: Yes.
- 10 CHAIRPERSON: Because there would be an adaptive management process that might or might not end up in that figure, yes.
- MS PINDER: That's true and the Board of Inquiry did note that.
- 15 CHAIRPERSON: Yes.
- MS PINDER: But they said that they were:
- 20 "Somewhat astounded and cannot understand why these maximum discharges were not modelled to give the truly worst case scenario for nutrient additions and the potential effects on both the local and Sounds-wide scale."
- 25 So, they weren't very happy about not having that.
- [2.15 pm]**
- MR DORMER: Can I just query your figures a moment?
- 30 MS PINDER: Yes.
- MR DORMER: We've got down the bottom right 22,221 plus 26,600 equals 48,000 etc.
- MS PINDER: Yes.
- 35 MR DORMER: Where does the 26,600 come from?
- MS PINDER: That comes from the top panel where that's the maximum amount of feed that ...
- 40 MR DORMER: There's 24,600 up there.
- CHAIRPERSON: Yes.
- 45 MS PINDER: So, what have I done?
- MR DORMER: I think you just added 2,000, it's neither here nor there.

MS PINDER: Okay, all right.

MR DORMER: I just want to make sure that's where it did come from.

5 MS PINDER: Yes, it did.

MR DORMER: Right.

10 CHAIRPERSON: So, it should be 46,000.

MS PINDER: Yes, sorry about that.

MR DORMER: Yes.

15 CHAIRPERSON: Yes.

MS PINDER: Yesterday King Salmon's counsel said that you didn't need to worry about the cumulative effects of nitrogen and phosphorous.

20 CHAIRPERSON: Did he? Yes.

MS PINDER: This proposal would actually, effectively, double the amount of feed and subsequent pollution going into the Sounds. The new farms have not been in long enough for the effects to be monitored and managed under adaptive management. The Guardians believes that the new farms need to be bedded in properly and being shown to be sustainable before any new farms are added. The calculations, in terms of the amount of nitrogen and phosphorous going into the Sounds, is not hard to do. There is another sheet that I have given you, which is the exchange between Mr Heal from Sustain our Sounds and Dr Henderson, King Salmon's expert witness. It talks about --

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30

CHAIRPERSON: What's this?

35 MS PINDER: It just says Mr Heal on top, it's just an extract from the cross-examination between Mr Heal and Dr Henderson from King Salmon.

CHAIRPERSON: Yes. Wait a minute, this is from the inquiry hearings, is it?

40 MS PINDER: Yes, yes. Dr Henderson found out that -- it says:

45 "There's 40 grams of nitrogen per cow per year and then working through the amount of tonnage of salmon feed, which, at that Board of Inquiry, it was around 40,000 tonnes and that is the equivalent of 56,000 cows' nitrogen being dispensed straight into the water of the Sounds."

So --

- CHAIRPERSON: Where does that say that here?
- 5 MS PINDER: It's about third paragraph down and it's in bold. I think you can see these figures, I am not making them up. They're from the Board of Inquiry. They're from a thorough judicial process that was gone through and those pollution levels have been agreed by the experts, the Board of Inquiry agreeing with the calculations in terms of people and King Salmon's expert witness agreeing that it was equivalent to the nitrogen from 56,000 cows.
- 10
- MR DORMER: I don't wish to be overly pedantic.
- MS PINDER: It's okay.
- 15 MR DORMER: What you've given us is not a Board of Inquiry finding.
- CHAIRPERSON: No.
- 20 MS PINDER: It's the --
- MR DORMER: The Board of Inquiry may well have found these things.
- MS PINDER: Yes.
- 25 MR DORMER: But you haven't shown us where they did. What you have done is you've shown us an extract from a cross-examination.
- MS PINDER: I have indeed.
- 30 CHAIRPERSON: Yes.
- MS PINDER: Yes.
- 35 MR DORMER: If you wish us to accept that the Board of Inquiry found these things --
- MS PINDER: No, I don't. You're absolutely right, Mr Dormer, I have given you the exchange between a cross-examination and the agreement --
- 40 CHAIRPERSON: Yes, questions.

MS PINDER: -- by Dr Henderson that that level of feed of 40,000 tonnes, it's the equivalent of 56,000 cows. I'm very aware that fish faeces and cow faeces are different than humans, absolutely. I'm not a fish and I'm not a cow. But the last time I looked at the periodic table, nitrogen and phosphorous were there, just as they were unchanged from when I was in high school. That's what we're talking about and I think this business of saying, well, you can't compare it to humans because humans are different, we're talking about nitrogen and phosphorous in the water column and that's really the crux of the matters.

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10

I was reading a comment, an opinion piece in the newspaper the other day and it was really telling. It was a new report from the Prime Minister's Chief Scientific Advisor, spells out in no uncertain terms that:

15

"Challenges facing fresh water resources and makes it clear that improving water quality will be a long and difficult process. In fact, for some waterways reaching desired outcomes and cleaning up rivers and lakes is simply not going to happen in the lifetimes of most of us."

20

So, we're talking about fresh water here but, of course, fresh water flows into the sea, so this is the report from Sir Peter Gluckman.

CHAIRPERSON: Yes, that's all about dairy farming, isn't it?

25

MS PINDER: Yes, but it's more than just dairy farming.

CHAIRPERSON: Agriculture.

MS PINDER: Agriculture and that's flowing into the sea. The Parliamentary Commissioner for the Environment has been telling us this for years and it echoes this month's warning from the OECD, saying that:

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35

"New Zealand's economic growth model is pushing the limits of what our environment can stand."

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These are the Government's advisors saying we're reaching some thresholds and tipping points and we need to be very careful. Okay. The Ministry for the Environment and Statistics' 2016 publication and that was Our Marine Environment, states that:

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"More than a quarter of our marine mammals are threatened with extinction."

And it goes on to say that:

"Aquaculture is an expanding industry and there is limited information about how aquaculture affects the marine environment."

The Marlborough District Council commissioned a report called the State of the Environment in 2015, which says that, "The Marlborough Sounds is not in good shape." I have just photocopied the piece out.

5

CHAIRPERSON: What was that?

MS PINDER: That is the Marlborough District Council's State of the Environment report in 2015.

10

CHAIRPERSON: Marlborough District Council --

MS PINDER: State of the Environment report.

15

CHAIRPERSON: -- State of the Environment report.

MS PINDER: 2015.

CHAIRPERSON: 2015.

20

MS PINDER: Yes, and I've referred to page 150.

CHAIRPERSON: See page 150.

25

MS PINDER: Yes, and I've made a copy of that for you.

CHAIRPERSON: Right.

MS PINDER:

30

"Marlborough's marine biodiversity is not in good shape, particularly in the Sounds. The significant issues are fewer fish, not as many species, serious loss of biogenetic habitats, sedimentation in estuaries smothering thousands of hectares of seabed and biosecurity incursions."

35

CHAIRPERSON: It doesn't say anything about the effect of marine farming there, does it?

MS PINDER: No, it doesn't.

40

CHAIRPERSON: No.

- 5 MS PINDER: But you've got the Pelorus and you see on the Marlborough map, you can see the Pelorus River and the other big river that flows into Havelock, which I don't know what its name is but you've got a lot of sedimentation from farming and from forestry flowing into those areas, so you've already got a really serious problem in those areas where the nitrogen and effects of five new salmon farms in that area is only going to exacerbate the problem.
- 10 CHAIRPERSON: It goes on to talk about:
"Annual monitoring of the Long Island Marine Reserve in the Queen Charlotte Sound shows high healthy marine habitats."
- 15 MS PINDER: Yes, that's a long way away from any existing or proposed farms.
- CHAIRPERSON: Is it?
- 20 MS PINDER: That's right out in the entrance, pretty much, of Queen Charlotte Sound. Queen Charlotte Sound is a coastal marine 1 zone which was meant to be that no new aquaculture could be put in there. That one in Tory Channel that was consented through the Board of Inquiry process is in a coastal marine zone 1 area but that's quite separate from Queen Charlotte.
- 25 CHAIRPERSON: Yes, they changed the zoning to do that, didn't they?
- MS PINDER: Yes, they did.
- 30 CHAIRPERSON: Yes.
- MS PINDER: Yes.
- CHAIRPERSON: Yes.
- 35 MS PINDER: If these six new farms go ahead, the amount of nitrogen that these farms will put into the water is equivalent to all other nitrogen sources, from run off, forestry, upwelling, human effects, rivers, mussel extraction and denitrification. Those statistics were derived from the Sustain our Sounds scientist, Rob Schuckard.
- 40 CHAIRPERSON: Sorry?
- MS PINDER: Those statistics were derived from Sustain our Sounds, which is no longer operative but he was the scientific person for Sustain our Sounds.
- 45 CHAIRPERSON: Yes.

MS PINDER: So, his figures are usually pretty on the button. During the Board of Inquiry, paragraph number 438, it talks about:

5 "The environmental effects information as being deficient and that adaptive management should be used with regular monitoring of the benthic degradation."

10 As I mentioned before, the Supreme Court agreed with this adaptive management approach. However, this still doesn't deal with the pollution in the water column which is much, much worse in high-flow sites. I read to you earlier that from paragraph 406 that the Board of Inquiry was somewhat astounded that the maximum discharges were not modelled by King Salmon.

15 Just getting to a point there on the Supreme Court, the Supreme Court ruled that:

20 "If an area is designated as an outstanding natural landscape, the development in the coastal marine area should be avoided."

25 When I look at the fact that three farms have been recently consented and adaptive management hasn't yet occurred, when I look at proposals for some of these new sites that they are in outstanding natural landscape areas, I just don't even know why we're even here. I would have thought that the proposal wouldn't even have got out of the gate and it surprises me that we're back here debating this, when we've only just recently gone through a really robust legal process through the Board of Inquiry, through to the Supreme Court and yet we are back asking for six new farms when the three consented farms from the Board of Inquiry and ratified by the Supreme Court, they're there but they haven't gone through that adaptive management to see what the effect of those three new consented farms are on the Sounds. It hasn't happened yet and now we're back. King Salmon's back asking for another six, so ...

35 CHAIRPERSON: And getting rid of some as well.

40 MS PINDER: If I can take you back to that spreadsheet, it's quite useful this spreadsheet, despite my addition error. You can see that bottom box -

CHAIRPERSON: Yes.

45 MS PINDER: -- there's five low-flow sites listed and those low-flow sites, one of them is fallowed, so it's not going at all.

[2.30 pm]

- CHAIRPERSON: Right.
- MS PINDER: You can see the feed levels from those low-flow sites.
- 5 CHAIRPERSON: Yes.
- MS PINDER: They come to a total of 5,766 tonnes and that 5,766 tonnes would go because they'll get rid of them.
- 10 CHAIRPERSON: Yes, yes.
- MS PINDER: But in place of that figure, that 5,766, King Salmon is asking for an additional 24,600 tonnes, so there's a huge difference in what's currently going, feed levels in those low-flow sites as to what feed levels can be --
- 15 CHAIRPERSON: But, once again, that's the maximum.
- MS PINDER: That's the maximum.
- 20 CHAIRPERSON: Yes, that's not the starting point.
- MS PINDER: No, it's not the starting point.
- 25 CHAIRPERSON: No.
- MR DORMER: While we're on that table again --
- MS PINDER: Yes.
- 30 MR DORMER: -- we've got 24,600 plus 22,200 --
- MS PINDER: Yes.
- 35 MR DORMER: -- additional inputs. Should we subtract from that the 5,766 in the low column?
- MS PINDER: No, that has already been subtracted. That 22,200 is just the five high-flow sites, the maximum feed levels that they can go to for the high-flow sites, so the low-flow sites have been taken out of. At the moment King Salmon's consented for -- well, they may be consented for more than those figures in the low-flow sites but that's the estimate of what they're feeding them at the moment.
- 40 MR DORMER: My point was entirely wrong, I'm sorry.
- MS PINDER: That's okay. It took me a while to figure out the spreadsheet too, so ...
- 45

MR DORMER: I don't understand these things.

MS PINDER: Spreadsheets are individuals, they're like people.

5 CHAIRPERSON: Yes.

MS PINDER: Yes, and everybody has a kind of a different way to present information. But I just thought that this was really helpful to see what -

10

CHAIRPERSON: Yes, you've made the point.

MS PINDER: Yes, yes, okay. So, in summary, the Guardians of the Sounds believes that New Zealand King Salmon should farm the farms it has sustainably with proper monitoring and using adaptive management techniques before any new farms are consented. Just don't think that we know enough about the effect of what's already been consented and those high-flow sites will spread the nitrogen and phosphorous that much further, so that's me.

15

20

CHAIRPERSON: Have you ever heard of the dilution factor with nitrogen and phosphorous?

MS PINDER: I'm not a scientific expert on that.

25

CHAIRPERSON: No. Yes.

MS PINDER: But I mean I understand conceptually what that means.

30

CHAIRPERSON: Yes, yes.

MS PINDER: However, if these farms go ahead and that's the equivalent nitrogen going into the water column of all the other sources of nitrogen in the Marlborough Sounds, it's really significant.

35

CHAIRPERSON: If that's correct, yes.

MS PINDER: Yes.

40

CHAIRPERSON: Yes.

MS PINDER: That might be something that you'd like to explore with Rob Schuckard when he does his evidence.

45

CHAIRPERSON: We will be because we're going to be seeing all those experts, yes.

MS PINDER: Yes, yes. But that's where I got that information from, so ...

- CHAIRPERSON: Yes, yes. All right. Thank you, Ms Pinder.
- MS PINDER: That's all right.
- 5 CHAIRPERSON: Don't go away yet.
- MR DORMER: Your very first comment that I wrote down, so it was early in your presentation, you made the point that, "Not enough is known about tidal flows through the Tory Channel."
- 10 MS PINDER: Maybe it ...
- CHAIRPERSON: Yes, she did say that.
- 15 MS PINDER: I did say that.
- CHAIRPERSON: Yes.
- MS PINDER: It would be really good for you, as a Panel, in your decision making to be very sure about what it means in terms of distributing this phosphorous through the Pelorus Sound, down to those blind bays, etc because my understanding from talking to people that have been in the area a very, very long time is that it flushes in but it can't flush out and you've only got that -- I think you said it was 3 kilometres point to point Waitata Reach for that water to come in.
- 25 CHAIRPERSON: We're confusing two places here.
- MS PINDER: Pardon me? Yes.
- 30 CHAIRPERSON: The Tory Channel's Queen Charlotte.
- MS PINDER: Yes, yes.
- 35 CHAIRPERSON: Yes.
- MS PINDER: My understanding and I'm not a scientific expert but is that the tidal flow comes through Tory Channel and into Queen Charlotte Sound. So, if you've got four farms in there you've got the effect of four farms that will be discharging phosphorous down or up/down through Tory Channel and into Queen Charlotte Sound.
- 40 CHAIRPERSON: Our question is relatively simple, so there's no outflow from the Tory Channel.
- 45

- MS PINDER: Well, there is because the tide comes in and out. But the overall flow goes through to Queen Charlotte. So, yes, of course, there's tides going in and out and if you've ever tried to sail your boat in on an outgoing tide you'd know that you have to wait out until the tide stops because you can't get in on a motor on your yacht because it's a very strong tide. But the overall tide flushes through into Queen Charlotte Sound. It's not like it flushes straight out into Cook Strait where, obviously, the dilution factor would be much more efficient. I mean if it all went out into Cook Strait, then you'd have a different set of parameters but it doesn't. The overall flow is into Queen Charlotte Sound.
- 5
- 10
- MR DORMER: Thank you.
- MS PINDER: Okay.
- 15
- CHAIRPERSON: Yes, thank you very much for coming, Ms Pinder.
- MS PINDER: Thank you very much for listening.
- 20
- CHAIRPERSON: Yes, our pleasure. Now, the next person we're going to hear from is Steffan Browning.
- MR BROWNING: I haven't brought any written evidence but I do have one plan.
- 25
- CHAIRPERSON: Yes. We'll have your original --
- MR BROWNING: Yes, and I was just trying to --
- CHAIRPERSON: -- comments, Mr Browning.
- 30
- MR BROWNING: Thank you, just trying to pull it up myself.
- CHAIRPERSON: Just right now we haven't put our hands on it.
- 35
- MR BROWNING: No, that's good.
- CHAIRPERSON: But we will follow through on that, so you can just sort of speak to that if you like.
- 40
- MR BROWNING: I was relying on it electronically as well, so I'm just trying to similarly pull it up. Various decisions popping up instead. That's MPI site. Okay, I can mostly go on it anyway, it --
- MR CROSBY: Do you need that because --
- 45
- MR BROWNING: It would be helpful, yes, thank you.

MR CROSBY: Yes, well it would be helpful to us too, I'd imagine. If this is connected but it ...

CHAIRPERSON: If you connect it up to here.

5

MR BROWNING: No, it's also finding the correct -- there we go. I think I'm going to get it, thank you for that little bit extra time. Yes, I've got it there. Thank you. I'll stay seated here is the best way, I guess.

10 CHAIRPERSON: Yes.

MR BROWNING: Well, kia ora koutou, I'm Steffan Browning, Green Party, Member of Parliament, although I've done this as an individual submission.

15 CHAIRPERSON: Yours, yes.

MR BROWNING: I'm told that, regardless, I'm never free of that other title. I have had a very long history with marine farming issues in the Marlborough Sounds and I doubt that there's anyone else that has submitted to more aquaculture applications than myself and I pity them if there is. Getting into Parliament probably helped slow that up but I was involved through what we called two gold rushes of applications, one ahead of a moratorium. So it took quite a lot of work to work through what -- and I'm saying we in a community sense, figured was the balance of use in terms of aquaculture for the Marlborough Sounds.

20

25

I submitted initially and got involved as an individual. I was living in the outer Marlborough Sounds in Anakawau Bay and I'll refer to that in a moment in terms of that Plan there. When I moved to town when my elder son was due at high school, I became more actively engaged generally for the Marlborough Environment Centre looking after their marine issues and which was principally aquaculture applications and, more latterly, with Friends of Nelson Haven in Tasman Bay and until I became a Member of Parliament I was co-Chair of Friends of Nelson Haven in Tasman Bay.

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35

CHAIRPERSON: Yes.

MR BROWNING: So I've been involved with many, many hearings and quite a significant number of Environment Court hearings as well. Ultimately, some of the stuff, in terms of the RMA, to be honest, I had a better feel of that in earlier days than I did more latterly, where the actual general principle of what should or should not happen in what had generally been agreed by the community, seemed to be more paramount than the finicky bits that would come out through the Environment Court.

40

45

5 I've stayed in touch, all the same, in recent times. For a while I did have a portfolio of aquaculture, which I don't have at the moment; a colleague of mine does. But I was quite alarmed when New Zealand King Salmon, for a start, applied for basically the use of area that was in the prohibited zone and the Board of Inquiry ensued.

[2.45 pm]

10 I was similarly concerned, of course, when this new approach, funded by New Zealand King Salmon, to, effectively, get their way still and, of course, there's political dimension unfortunately now. I come here, as I say, as a community member that was heavily involved since the mid-90s, well before my time of going into Parliament in 2011 but clearly there's an issue with the level of Government support, the way
15 Ministry for Primary Industries has engaged in this.

20 I did attend on what they might have called consultations down in Waikawa Boating Club with the MPI and I have to say I was exceptionally disappointed in the approach taken, as well as having empathy for those staff members who were put in this, I would suggest, difficult position of having to promote the salmon farms, as opposed to providing genuine Q and As as to the potential effects and so forth. It was very one-sided and very concerning, from my point of view.

25 CHAIRPERSON: Do you say the Q and As from MPI were one-sided?

MR BROWNING: Yes.

30 CHAIRPERSON: You say that?

MR BROWNING: There was absolutely no doubt that they were promoting the New Zealand King Salmon relocation intention. I have colleagues in the NGO world that did not go because they were concerned that they would get so angry there and I must admit --

35 CHAIRPERSON: Who had colleagues in it?

MR BROWNING: Sorry?

40 CHAIRPERSON: Who had colleagues in it?

MR BROWNING: I say I have --

45 CHAIRPERSON: You, yes.

MR BROWNING: -- friends that even live nearby that didn't go because they were concerned they would get so upset on hearing how the process would -
-

CHAIRPERSON: So, how did they know what happened?

5 MR BROWNING: One, they knew from me, they'd known from others that had attended. The whole process was something that disquieted them to start with. So, I want to do a little history and I'm hoping that the Panel will also look at what the Marlborough District Council prepared in terms of issues for the Board of Inquiry, that actually it had the chronology of planning of aquaculture for the Marlborough Sounds.

10 CHAIRPERSON: Why do you think that's relevant now?

MR BROWNING: It is an interesting point because --

15 CHAIRPERSON: Yes.

MR BROWNING: -- I think it's context in terms of the social and community cultural use of the Marlborough Sounds. This current concept of relocation of marine farms into the prohibited area is contrary --

20 CHAIRPERSON: It won't be --

MR BROWNING: Sorry?

25 CHAIRPERSON: It won't be prohibited, that's the whole point of this process.

MR BROWNING: Well, if it's a planned change it won't be prohibited.

30 CHAIRPERSON: Yes, yes.

MR BROWNING: But I want to bring you up to the point of why it was prohibited and I think that chronology assists in that.

35 CHAIRPERSON: But if the proposal is to change that prohibition --

MR BROWNING: For one, I and obviously a good number of people in the community disagree with that.

40 CHAIRPERSON: I understand that, I understand that very well. But I can't see that going back into the history is going to help us now, when this is a proposal to change that prohibition to facilitate something.

- MR BROWNING: With respect, I would suggest that the proposal is without community support and that is proven by the process to date. We can talk about ecological effects, we can talk about navigation, we can talk about visual landscape effects, vistas and on all of those bases we could kick these to touch and say, no, they're not acceptable. They were the same reasons, the same concepts that brought us up to this point of a Marlborough Sounds Resource Management Plan that had areas prohibited. It had areas clearly defined as appropriate for marine farming, should they pass discretionary tests. There's another area in --
- 5
- CHAIRPERSON: We know all that, Mr Browning.
- 10
- MR BROWNING: Good.
- 15
- CHAIRPERSON: Yes. What I am saying to you is that that was then, this is now and I'm sure you understand that a plan is not set in concrete forever and a day and plans do change.
- 20
- MR BROWNING: And plans do change.
- CHAIRPERSON: Yes. The question for us is, is this an appropriate change to that Plan on the RMA tests? Isn't that what we've got to look at?
- 25
- MR BROWNING: You do have that to look at but you must look at it in the context of the Marlborough Sounds.
- CHAIRPERSON: Well in the context of the Plan, yes.
- 30
- MR BROWNING: So, am I getting it that you have no interest in what the community thought when that Plan was agreed to?
- CHAIRPERSON: Well, I'm not because that's history.
- 35
- MR BROWNING: Okay.
- CHAIRPERSON: The Plan that exists now is the outcome of that process, isn't it?
- MR BROWNING: It is.
- 40
- CHAIRPERSON: Now we're in another process.
- MR BROWNING: But this process is quite different. This process does not give the community --
- 45
- CHAIRPERSON: Okay, now we're coming to the issue.
- MR BROWNING: Okay.

CHAIRPERSON: Yes. You're concerned that this process is not a proper Plan-change process because it's being done by regulation, is that right?

5 MR BROWNING: That is in part, certainly.

CHAIRPERSON: Yes, yes, well that's relevant, yes.

10 MR BROWNING: My view actually is that the original Plan process was robust. It was robust and we've had a Board of Inquiry since, which, as I say, I didn't agree with that process too much either.

CHAIRPERSON: No.

15 MR BROWNING: The reason I'm bringing up the more historical part was that this company signed off on that Plan.

CHAIRPERSON: Yes.

20 MR BROWNING: This company agreed to the areas that would be prohibited and aware, maybe with some variance with some unusual characteristic, might be considered to be able to go ahead in the non-complying area that obviously is not prohibited. You have to ask, why should the community be brought back into bat for plan changes by organisations that are being applied for, that were party to the original Plan? So, I was going to go through a history of that and, clearly, you're less interested in that and I'll reflect on that later in the process as to whether that was appropriate or not.

25 CHAIRPERSON: What do you mean by that?

30 MR BROWNING: Well, I'm not sure where this is going. I have some concerns and obviously people that come here have concerns about the process and whether there are legal challenges to that process, I'm not sure. I suspect there will be and as to what the components of that are, I'm not sure either. One thing I would appeal to you on is that understanding that the global resources are finite. The environment we are in has obvious limitations. We are not building new or more Marlborough Sounds. The area we have is the area we've got and that's why it was so important when we came to a conclusion when that Plan was devised because, is there going to be continual incremental creep every 10 years or 20 years, another push on those resources? Where does that end?

35 MR DORMER: One way or the other there's always going to be change. You can describe it as creep if you like. You could also take the view that, for example, the number of square miles or square kilometres of the national parks has increased significantly over the last 20 years.

40 MR BROWNING: Yes.

- MR DORMER: Is that creep?
- MR BROWNING: It's certainly --
- 5 MR DORMER: That's change.
- MR BROWNING: It is change.
- 10 MR DORMER: Right, and so what's proposed here is change.
- MR BROWNING: Okay.
- MR DORMER: I don't know that it adds much to the debate to talk in terms of creep,
15 like creep is stealthy and bad.
- MR BROWNING: Probably sprawl, I suppose, would be the more appropriate RMA term.
- CHAIRPERSON: The what?
- 20 MR BROWNING: Sprawl.
- CHAIRPERSON: Sprawl, yes, yes.
- 25 MR BROWNING: Yes, sorry, in choice of words.
- MR DORMER: No, I don't like sprawl either but never mind.
- MR BROWNING: Okay. It's got some precedence, I think. So that what I am saying
30 though and I'd like to appeal to you on the basis of the national parks
and they're similar; the natural space, the area that is protected to be in
as natural a space as possible is limited and change for industrial
purposes, which this is, if it carries on - and my word is creep or sprawl
or incremental growth - that is where we have an issue because it is
35 finite. The space is finite.
- CHAIRPERSON: Well, just let's stop you there. At the beginning of this process King
40 Salmon has 17 hectares of salmon farming. At the end of this process
it will have 17 hectares of salmon farming. Where's the spread?
Where's the incremental spread?
- MR BROWNING: Incremental spread is into the area that is prohibited in part to be kept
for its naturalness.
- 45 CHAIRPERSON: Yes, so we're going around in a circle, aren't we?

MR BROWNING: Well, no, because where they may give up their rights or their consent, I'm not sure of what their intention of what they want to do and I will use Crail Bay.

5 CHAIRPERSON: Well they are.

MR BROWNING: Okay. That is still within the discretionary part of the Marlborough Sounds Resource Management Plan for use in aquaculture and it has failed and they or previous users failed it. So, to say that going to a new space, hectare by hectare, is somehow similar, it is not. One is going into an area that was defined as prohibited for very good reason. The map you've got there, yes, it's very historical and Commissioner Crosby will know it well, where I've done the asterisk, that site and then, ultimately, a number of other sites; that site was won in the Environment Court and in strong part because of protecting the naturalness of that area and sea vistas, landscape values were a major part of that.

20 Another part to that hearing was the discussion or the intention of the applicant to want more space because of disease, perceptions of disease and they needed more spaces. As it worked out, it was the management by the mussel farmers and the management of the spat that was the issue with the disease because its ubiquitous virus that was around and it was how they managed the spat before putting in the water which was bringing the disease on.

25 But they were using that same style of thing as we're having now with King Salmon, as saying they're diseased, their inability to operate at the site because of low flow and whatever, there was call for them to go into a new area. That decision there, landscape value, seascape and an element of science in terms of ecological features, I guess, were part of the reasons that was then used as part of the boundary decisions for the subsequent Plan.

30 CHAIRPERSON: Yes.

MR BROWNING: So that was my history point in that there are some real parallels with what's going on here, in my view.

40 CHAIRPERSON: Okay.

[3.00 pm]

MR BROWNING: So, I appeal to you understanding that this is finite and we might have change but where does that change finish if every 10 or 20 years and less, it seems with King Salmon, much less, that we keep getting incremental growth? Some say and King Salmon will say that the wild fishery is shot and, therefore, we need to be looking at this industry to provide food for the world. I would try and stay away from colloquial on that but the reality is we should be fixing the wild fishery, rather than saying, okay, it's shot, now we move on to something else, particularly a polluting industry such as this.

5

10

I'm not against aquaculture. I'd a meal of mussels a couple of nights ago. I might choke on King Salmon but it's a matter of balance. How many do you have? I also appeal to you on the basis that there still is not independent science on the effects of the mussel industry on other species in the Marlborough Sounds. We hear about the benthos a lot and we hear about it a lot in terms of king salmon but the effects on other species needs genuinely independent, and I mean genuinely independent; I've been against the main players and watched them not produce information that they've known about in Environment Court hearings on oath. So, I know we need genuine independent science in the Marlborough Sounds ahead of any further development and if there's further development, it should be in the areas that the community, the community working together, agrees to.

15

20

25

As I mentioned specifically for this, the vistas have been mentioned and a recent hearing, KPF versus Marlborough District Council in the Board of Inquiry; they cover off some of those areas including the accumulative effects that are very important.

30

CHAIRPERSON: Yes. We're familiar with that.

MR BROWNING: Thank you. Just back to the National Park concept, I was in horticulture up until 2005 for 17 years in glasshouse operations; pretty industrial. Now, I could intensify them, I could deplete my soils. It wouldn't even be seen as feasible to consider an application in Pollard Park in Blenheim to put up some more hothouses because there's more open space and less enclosure by trees or whatever, give me better light; the soils will be good. It just would not be thought about. I'd be laughed out of existence before the hearing or anything came along. It is very, very similar.

35

40

5 Why should a private company be able to move into public space that
the public have fought for? We did so much as well in the Environment
Court and where you're saying Marlborough Environment Centre,
Friends of Nelson Haven and Tasman Bay, other members of the
community through Save our Sounds and the likes, to reinforce the
Sounds Plan. Talk to Judge Kenderdine, talk to the other judges that
10 spent interminable time dealing with Marlborough Sounds resource
management cases because there were some slightly iffy bits around
where it was non-complying in the Plan. The work done, to have Port
Gore somewhat near what the Plan intended, huge time, huge cost to
the community. That's what I implore you to consider as this is now
put in front of you.

15 That is the essence of what I've got to bring to you.

CHAIRPERSON: It's all in the process of review anyway.

MR BROWNING: It is in the process of review and it's got statutory review requirements
20 for that to happen. The Marlborough District Council, in recent years,
in terms of building, working through that review, and both the
Government's part and management have said that they really see the
Marlborough Sounds is at its capacity point. I'll tell you that that
capacity isn't even worked out in terms of the negative effects of marine
farming.

25 We recently, that's Friends of Nelson Haven and Tasman Bay, over a
good number of years, I think it was something like 15 years from the
original application, stopped some expansion in Admiralty Bay and
that was because of dolphins; good charismatic mega fauna dolphin
30 occupancy in a spatial sense of where they would go with their fishing
technique of herding the fish up and, therefore, further marine farms
might be in the way. But the thing that really wasn't covered there and
needed to be covered and still does need to be covered is what would
the effects of those marine farms be on the food chain that those
35 dolphins actually were attracted to go there for in the first place? That
sort of science hasn't been happening for either salmon farming or
mussel farming. To expand into the prohibited areas without that
would be a nonsense in my view.

40 I think that's the essence of my points but, in my view, they are well
founded with a long history and a long history of positive outcomes in
the Environment Court. It's not unfounded and is with very, very strong
knowledge of the community that I live in and have lived in since the
age of four. Thank you.

45 CHAIRPERSON: Thank you very much. Have you got any further questions?

MR DORMER: No, thank you, but thank you.

- MR BROWNING: Thank you.
- 5 MR CROSBY: No, thank you but thank you for the presentation.
- CHAIRPERSON: Thank you for coming, Mr Browning. Now we have James Candish and Kristina Jenson. Are they here? Are you James Candish?
- 10 MR CANDISH: Otherwise known as Paul Candish.
- CHAIRPERSON: I've got you down here as James. Am I wrong about that?
- MR CANDISH: You can call me Paul.
- 15 CHAIRPERSON: Can I?
- MR CANDISH: Yes.
- CHAIRPERSON: All right. Is that the name you put your submission in?
- 20 MR CANDISH: Yes, I think so.
- CHAIRPERSON: Is it?
- 25 MR CANDISH: Yes.
- CHAIRPERSON: I wonder where we got the name James from?
- MR CANDISH: It's my first name.
- 30 CHAIRPERSON: Okay.
- MR CANDISH: It's been like this since I was in school.
- 35 CHAIRPERSON: Okay, right.
- MR CANDISH: Right. So, my wife and I and our children have lived here in the Sounds for more than ten years now and we've been involved; we've lived on our boat; we've sailed extensively all through the area and know it really well. We've talked to lots of people that have lived here for many years and lots of people that have fished and been involved in marine aquaculture and mussel farming all through the Sounds for many, many years.
- 40

- 5 What I'd like to do is read this to you. I wrote it as a series of questions for you. I start off; I hope that you're going to hear lots about why salmon farms are not the right path forward for the Marlborough Sounds, all the way from King Salmon being a largely foreign-owned company to trying to farm the wrong kind of salmon.
- I don't want to talk to you about these problems. Instead, I have a few questions I'd like you to consider as you make your decision.
- 10 CHAIRPERSON: When you articulate the questions, could you give us a little bit of time to get them down so we can provide the answers at an appropriate time?
- MR CANDISH: Yes, sure.
- 15 CHAIRPERSON: What's your first question?
- MR CANDISH: The first question is, is further exploitation of the Marlborough Sounds in the best interest of the aquatic environment? The Sounds have been heavily used for commercial purposes for many years resulting in a degraded environment.
- 20 CHAIRPERSON: Wait a minute. Is the further exploitation in the Marlborough Sounds in the best interest of the aquatic environment? That's the question, isn't it?
- 25 MR CANDISH: That's the question.
- CHAIRPERSON: Yes, okay. Then you wanted to go on and say?
- 30 MR CANDISH: Further along that same line, do we need more exploitation or should we be doing something different such as marine reserves or cutting back on the exploitation?
- CHAIRPERSON: Such as marine reserves and turn our back on exploitation; is that what you said?
- 35 MR CANDISH: That would be good, yes. You could write it that way. The next question that comes to mind, thinking about these issues, is are we setting a good example and leadership for our young people in leaving behind a legacy of action that we can feel proud of? I think that's something quite important to think about.
- 40 CHAIRPERSON: The needs of future generations, the Resource Management Act talks about.
- 45 MR CANDISH: Yes.
- CHAIRPERSON: Is that what you're talking about?

MR CANDISH: Yes, essentially, but it's also an example.

CHAIRPERSON: What else do you want us to consider, Mr Candish?

5

MR CANDISH: The next thing was Steffan Browning mentioned that he was at the meeting in Waikawa when the MPI people came in to talk.

CHAIRPERSON: The consultation?

10

MR CANDISH: Yes. I was at the one at Waitaria Bay.

CHAIRPERSON: You were at where?

15 MR CANDISH: At the one in Waitaria; they came out to Waitaria Bay and we had a consultation there. It was very obvious that they had an agenda.

CHAIRPERSON: Who's they?

20 MR CANDISH: The MPI representatives. It was clear that they had an agenda to promote this King Salmon proposal.

CHAIRPERSON: Can you describe to us why you thought that?

25 MR CANDISH: The minute somebody would make an objection to moving them or expanding them or whatever, they would try to find reasons that that wasn't true. They spent most of the time arguing, trying to prove that it was going to be a good idea, all the way from bringing up more jobs to all kinds of stuff. It was very obvious.

30

My next question is why is the Government supporting an industry, King Salmon, that has already such a poor track record in environmental practice and is also largely foreign-owned? Should the Government be protecting the common property that is the heritage of New Zealanders?

35

CHAIRPERSON: Why is the government supporting King Salmon which has a poor track record, did you say?

40 MR CANDISH: Yes, of environmental practice and is also largely foreign-owned.

CHAIRPERSON: Is it?

MR CROSBY: Yes.

45

CHAIRPERSON: What was the percentage?

MR CROSBY: Forty-two I think.

- MR CANDISH: It's more like 60. It's about 65 per cent Malaysian owned and the rest is stockholders.
- 5 CHAIRPERSON: Is it as much as that?
- MR CROSBY: I don't remember now. We were told what it was.
- MR CANDISH: It's quite a lot.
- 10 MR DORMER: An issue I have with that submission though is that had Parliament thought the nature of ownership to be important? One might have thought it would have been referred to somewhere in the RMA but the RMA is a statute about environmental effects and whether this
- 15 company is owned by Malaysians, Chileans, Americans, Kiwis, Aussies or Brits and is operated in the way it's operated, it doesn't really matter where the ownership lies, does it?
- MR CANDISH: It does.
- 20 MR DORMER: Really?
- MR CANDISH: Yes, because the Marlborough Sounds is a resource. It's a commonly owned resource, right? We all have access to that and use of it.
- 25 MR DORMER: Yes?
- MR CANDISH: They are using this resource for their own benefit, not for the benefit of anybody here. That's the problem.
- 30
- [3.15 pm]**
- MR DORMER: But the statute is about environmental effects.
- 35 MR CANDISH: No but that's not my question. My question is exactly that. Why is the Government supporting that?
- MR DORMER: Maybe the Government has reached the view that if our economy is to expand, substantial amounts of overseas capital are required. I don't
- 40 know and it's not a factor, I assure you, I'll be turning my mind to.
- MR CANDISH: I'm asking you to think about it.
- CHAIRPERSON: Okay, we will and we'll address it.
- 45

- MR CANDISH: Yes. My last question is, is further expansion of aquaculture in the best interests of the Marlborough Sounds' environment and ecology? Is it in the best interests of the people who live there and the people who visit? It's basically the same as the first one but isn't there a better way? Isn't there something we could be doing that would benefit the ecology and the people more than this?
- 5
- CHAIRPERSON: Yes. The assumption you're making in asking that question, of course, is that there are no benefits to the environment at all from this proposal.
- 10
- MR CANDISH: That seems pretty obvious.
- CHAIRPERSON: Some people say there are. There is an argument that says it will benefit the environment by getting rid of the ones that are degrading the environment and improve the environmental footprint. That's what some people say.
- 15
- MR CANDISH: Yes, I know. I've heard that.
- 20
- CHAIRPERSON: Yes. You don't give any weight to that at all, do you? Your assumption is that this will be detrimental to the environment, full stop.
- MR CANDISH: No. No, that's not what I'm saying. What I'm saying is that the environment, the Marlborough Sounds, particularly Pelorus Sound, is already degraded. It's already in a state of collapse.
- 25
- CHAIRPERSON: Is it in a state of collapse?
- MR CANDISH: Yes.
- 30
- CHAIRPERSON: Who says that?
- MR CANDISH: All you have to do is just go and talk to some people that have been around the Marlborough Sounds for a few years; people who have lived there, who have fished there for years.
- 35
- CHAIRPERSON: Yes, but that's another question, isn't it?
- MR CANDISH: No, it's not another question.
- 40
- CHAIRPERSON: That's overfishing.
- MR CANDISH: Yes, but we're not talking about that though. I'm just saying that as of now, the environment, the aquatic environment is degraded, significantly degraded compared to what it was and now we're talking about further exploitation. What I'm asking is, is that the right thing? Is that what we really need to be doing here?
- 45

- CHAIRPERSON: I'd like you to point to me where there is any authoritative statement that the aquatic environment of Pelorus Sounds is collapsing.
- 5 MR CANDISH: Not collapsing, collapsed.
- CHAIRPERSON: That's what you said.
- MR CANDISH: No; collapsed. It has.
- 10 CHAIRPERSON: Has collapsed.
- MR CANDISH: Yes.
- CHAIRPERSON: Okay. Can you tell me any authoritative statement for that proposition?
- 15 MR CANDISH: Do you remember, what was it, eight years ago, they had the blue cod ban on?
- CHAIRPERSON: Yes, I do vaguely remember that.
- 20 MR CANDISH: Why do you think they had that blue cod ban?
- CHAIRPERSON: You tell me.
- 25 MR CANDISH: No. Why would they do that?
- CHAIRPERSON: Don't you know? It was because it was overfished, wasn't it?
- MR CANDISH: Yes.
- 30 CHAIRPERSON: Yes.
- MR CANDISH: Does that not --
- 35 CHAIRPERSON: This is not overfishing, is it?
- MR CANDISH: What?
- CHAIRPERSON: This is not overfishing.
- 40 MR CANDISH: We're talking about the environment here. We're not talking about fishing.
- CHAIRPERSON: Yes, but the blue cod shortage was because people were plundering the fish.
- 45 MR CANDISH: Yes.

- CHAIRPERSON: Yes. So, they put a moratorium on fishing for blue cod and it came back.
- 5 MR CANDISH: Yes, exactly.
- CHAIRPERSON: Yes, but what's that got to do with the aquatic environment of the Pelorus Sound?
- 10 MR CANDISH: This is difficult. I'm not quite sure why you're taking this point of view. It's obvious that there are problems in the Marlborough Sounds in terms of fishing. If they have to ban blue cod fishing until it can come back, what about the scallops in Ketu Bay? They've completely closed down the scallop fishery. Doesn't this mean something to you?
- 15 CHAIRPERSON: Yes. It means there's over-exploitation.
- MR CANDISH: Exactly. That's what I'm saying.
- MR DORMER: No, you're not.
- 20 MR CANDISH: So, I'm saying do we need more?
- MR DORMER: You're not saying that. You're saying the aquatic environment has collapsed.
- 25 MR CANDISH: It has because of over-exploitation.
- MR DORMER: Taking that statement on its own, I might well contest it. Taking another statement; there has been over-zealous exploitation of fishing resources is an entirely different and much more defensible proposition than going from the second one to the first and saying the aquatic environment has collapsed.
- 30 MR CANDISH: Okay. You put on your mask and snorkel and go have a swim out there and see what you see.
- 35 MR DORMER: No; if you want to give evidence about that, that's fine. I'd like to hear that but what His Honour's talking about is scientific evidence that you may have to support the proposition that the aquatic environment has collapsed.
- 40 MR CANDISH: That scientific research hasn't been done, right? That's part of the problem.
- 45 CHAIRPERSON: Then you can't say that, can you?

- MR CANDISH: I can say it from my own point of view which is where I'm speaking. I'm not talking about a scientific study because it hasn't been done. They actually haven't done it. They haven't gone out and found what it was like. The only way you can find out is to go and talk to people that have lived in the Sounds and have fished there for years because there's nothing else. So, they set this baseline as to what it is now but that's not what it used to be like. The Sounds used to be full of dolphins. It used to be full of birds. It used to be full of schools of kawhai. You talk to people that have fished in the Sounds for years and they'll say that you could go off fishing off any point and fill your dinghy up with snapper, whatever you want, right?
- 5
- CHAIRPERSON: You can do that in many parts of this country. You can say exactly the same thing.
- 10
- 15 MR CANDISH: But not Pelorus Sound.
- CHAIRPERSON: It's because of over-exploitation of the activity.
- 20 MR CANDISH: Exactly and that's my point.
- CHAIRPERSON: Yes.
- 25 MR CANDISH: That's exactly my point.
- CHAIRPERSON: What's that got to do with changing the location of some salmon farms?
- MR CANDISH: Because again, it's more exploitation.
- 30 CHAIRPERSON: I think we're getting somewhere now. You're saying that this proposal will add to that exploitation.
- MR CANDISH: Yes.
- 35 CHAIRPERSON: Right, thanks.
- MR CROSBY: I think what the other members of the Panel are concerned about, and it's concerned me too, is the statement, the assertion that there had been a collapse of the environment in Pelorus Sound. I think along the basis of what we've been reading and the materials we've been reading, there are to and fro arguments about whether or not there are effects on the water column quality, the quality of the water column. In essence, what the other members are trying to suggest to you is that there's a difference between water column quality effects and man's exploitation by overfishing of particular species. Which is it of those two that you're asserting or are you asserting both?
- 40
- 45

- MR CANDISH: To me, they're both tied up together. They're not really separate. I can't see that you can separate out those two things. It's one and the same. The marine aquaculture effects, both of those things, it affects the water quality and it affects the species that live there. I can't really separate it out in my mind. There used to be extensive mussel beds on the floor of the Marlborough Sounds. They were like this deep and in those mussel beds, that's where the baby fish lived and hatched and grew up. Now, they're hanging right through the whole water column and they're acting like big filters but there's still lots of little fish amongst those mussels but when they harvest them, the whole thing disappears. It's not part of the system. If you look at the rocks where there were large beds of seaweed, they're not there now; they're gone. Like I said, there hasn't been the scientific studies done to find out what it's like and we're still pushing ahead with further exploitation. That's my point basically.
- 5
- 10
- 15
- CHAIRPERSON: Yes. Okay.
- MR CANDISH: Thank you.
- 20
- CHAIRPERSON: Anything else?
- MR CANDISH: No, that's it.
- CHAIRPERSON: Right.
- 25
- MR CANDISH: Thanks.
- MR CROSBY: Thank you.
- 30
- MR DORMER: Thank you.
- CHAIRPERSON: Thank you for coming.
- MR CANDISH: Thank you for being here.
- 35
- CHAIRPERSON: Now, we have got two more people here. We've got the Cliff -- is the Cliff --
- MS JENSEN: No, I'd like -- I would like to speak.
- 40
- CHAIRPERSON: You're the Cliff Top --
- MS JENSEN: No, I'm Kristina. I'm Kristina.
- 45
- CHAIRPERSON: Oh, I'm sorry.
- MS JENSEN: No, it's okay.

CHAIRPERSON: Oh.

MS JENSEN: I'm the other half.

5 CHAIRPERSON: Oh, well, it would've been good if you'd come together, but never mind.

MS JENSEN: No, that's okay. It's pretty short and sweet.

CHAIRPERSON: Yes.

10 MS JENSEN: Hello, and --

CHAIRPERSON: Hello.

15 MR CROSBY: Hi.

MS JENSEN: -- thank you for being here.

CHAIRPERSON: Yes.

20 MS JENSEN: I think probably my biggest concern is that this is yet, to me, another example of a very human, egocentric activity, which is happening in an environment which is also home to a lot of other creatures. And I guess I wish it to be known that I speak for the fish, and the dolphins, and the sea birds, and even down to the tiny, little organisms that live in the Pelorus Sound and in Marlborough Sounds in general. And I would like to honour those creatures and the ecology that they live in, and hope that their right to be there is honoured by these policies that my government -- which I have to say I feel very disappointed in at the moment. I grew up as a child feeling that I lived in a country where the Government listened to people. We stopped nuclear power coming into this country. There were lots of things that happened when I was a child that I thought, "Yes, the Government does listen to me, the common person". And I personally feel at the moment that that is not happening.

25

30

35

CHAIRPERSON: In this particular case, you mean?

MS JENSEN: In this particular case --

40 CHAIRPERSON: Yes.

MS JENSEN: -- and lots of other cases too. But, yes, in this particular case as well.

45 CHAIRPERSON: Well, we're more interested in this case.

MS JENSEN: Yes. Yes. And it concerns me that even some of what I've heard today from the Panel, and I -- and I can understand why you would say, "But, you know, we're talking about this, and why would ..."

5 CHAIRPERSON: We're testing the material, Ms Jensen.

MS JENSEN: Yes. Yes. Oh, I know. I know that you're testing.

10 CHAIRPERSON: You can't take any conclusions from what we say.

MS JENSEN: No. No. Okay. All right. I won't say that then.

CHAIRPERSON: We're trying to robustly test the contentions at the moment.

15 MS JENSEN: Yes. Yes. No, that's fair enough.

CHAIRPERSON: And we've done it with other people as well.

20 MS JENSEN: Yes. No, I understand that.

CHAIRPERSON: Yes.

25 MS JENSEN: And I guess, as my husband said, there is an assumption of a baseline that's being made about the Sounds and what the environment is like right now. And every generation's going to come along and see "normal". You know, to a certain degree we're all going to come along and see "normal". But I know -- I'm a writer, and I do lots of my own research, not just for the articles that I write, but also just for interest's sake. And I've come across material where it -- there are descriptions of what people go out and catch, you know, let's say 50 years ago/60 years ago.

30 CHAIRPERSON: Yes.

MS JENSEN: And that is not in the Sounds anymore. It doesn't exist anymore, the ability to catch fish like that, or just see fish like that. And even if you go to Long Island and see what's happened there because there's a marine reserve there, this -- the -- it defies comparison, almost, because it's so alive around that island. And yet everywhere else in the Sounds there is just so little of that diversity, and the versatility of the environment, too, to cope with what's happening, you know, with what we as humans are doing. And that's why I keep coming back to this very egocentric view that humans have that it's here for us to use and do what we like with. And I don't believe that at all. I believe that it's our responsibility to take care of the environment and to make sure that when we leave, when I die, I can say that I did the right thing to promote sustainability, to promote awareness of what -- of what ... the whole system, the big picture. You know, not just my 80 years or whatever, but millions of years down the track, that another species -- if somebody else came here and had to analyse what we're doing, I would feel embarrassed, I think. I would feel embarrassed. I would feel like just crawling off into a little corner somewhere, because I don't feel that we have managed our environment very well as human beings.

20

[3.30 pm]

CHAIRPERSON: They might've said that about the industrial revolution.

25 MS JENSEN: That's true. Yes.

CHAIRPERSON: Yes.

30 MS JENSEN: Yes.

CHAIRPERSON: But where would we be without it now?

MS JENSEN: That's true. I have -- personally have tried to live a very simple life and keep my footprint very small. And yet I do own a car, and I do have a boat that has a diesel motor in it. You know, I use fossil fuels. I don't eat salmon. You know, but there -- and there are a lot of people -- you know, a personal thing for me has always been that we've lived in the Sounds for quite a while now, and people always -- from outside always ask us, "Oh, you must get out there and catch lots of -- lots of fish". Well, we made the decision when we came to the Sounds that we weren't going to go out and fish, because we could see that the environment was degraded and that there was something missing. And so we thought, "We don't have to eat fish". So that's our little bit that we do. So ... yes, that's what I'd like to say today.

45

CHAIRPERSON: Good.

MS JENSEN: So --

- CHAIRPERSON: Just -- have we got anything for her?
- MR DORMER: No, but thank you for stating your view so forthrightly.
- 5 MS JENSEN: Yes.
- MR CROSBY: Have you dived at Long Island?
- 10 MS JENSEN: I haven't personally, but I have friends who have --
- MR CROSBY: Right.
- MS JENSEN: -- and have told me what they see there. And I --
- 15 MR CROSBY: And have you read Mr Davidson's reports on Long Island and the --
- MS JENSEN: No.
- 20 MR CROSBY: Oh, well, I'd commend them to you.
- MS JENSEN: Okay.
- MR CROSBY: Because they echo the points you're making. And doesn't that really
25 provide some sort of silent testimony to the effects of overfishing as
contrasted with effects on water quality, if in fact a marine reserve can
create that regeneration?
- MS JENSEN: Yes. Yes. Well, the fact that we have all these marine reserves being
30 created in the North Island, I find that very interesting, and in the
bottom of the South Island, but we have so little up here. You know, I
would love to see the Government put more energy in that direction --
- MR CROSBY: So you'd have -- yes.
- 35 MS JENSEN: -- rather than supporting more exploitation of the area.
- MR CROSBY: Right.
- 40 MS JENSEN: Yes. So --
- MR CROSBY: So what you're advocating, really, is more marine reserves through the
Sounds?

- 5 MS JENSEN: More marine reserves. Yes. Yes. And, in fact, I -- we had a conversation with two children two nights ago who -- about this, and they were asking us what we were going to do. And I so -- would so have liked them -- to bring them along, because they said, "Yes, that's what we want too".
- MR CROSBY: Yes.
- 10 MS JENSEN: "We want marine reserves", you know.
- MR CROSBY: Thank you.
- MS JENSEN: Yes. Thank you very much.
- 15 CHAIRPERSON: Okay. Thank you very much for coming. Is Peter Chalmers here?
- MR CHALMERS: Yes, indeed.
- 20 CHAIRPERSON: I think we'll do it now. Are you ready to come and talk to us now? Thank you.
- MR CHALMERS: I think George would like to tick off, if that's all right.
- 25 CHAIRPERSON: So there are three of you. And you're Clifftops New Zealand, are you?
- MR CHALMERS: That's right.
- CHAIRPERSON: Is that a company, or what is it?
- 30 MR CHALMERS: It's an unincorporated society.
- CHAIRPERSON: Unincorporated -- not -- it's not an incorporated society?
- 35 MR CROSBY: No, it's not an incorporated society.
- CHAIRPERSON: Okay.
- MR ELKINTON: Thank you.
- 40 CHAIRPERSON: Clifftops New Zealand. Right. So, are we going to hear from you, Mr Elkinton, are we? Okay.
- MR ELKINTON: (Māori content). I've just said greetings, big chiefs, have a good day.
- 45 CHAIRPERSON: Well, that's very nice of you to say that.

MR ELKINTON: My remarks today are intended to cover three purposes, as follows. First, to declare that Iwi Māori are conservationists, and have been from before Kupe and his arrival in Aotearoa, point 2, to declare that Iwi Māori are scientists, and have been from our pre-Aotearoa settlement, and 3, to oppose the relocation of the shallow-water salmon farms to their proposed locations. I'll now give sequential, brief example supporting the above. I can give many more examples if we had time.

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So, Iwi Māori are conservationists. Kupe came to Aotearoa in pursuit of Te Wheke-o-Muturangi, the octopus of Muturangi. This octopus was destroying the ecosystem in our homeland in a wasteful manner. I picture in my mind the behaviour of the octopus in this manner; I have seen seals pluck butterfish from a set net, eat the head, and discard the rest, and then systematically proceed to do the same to the next one, and so forth. In a bionic and historical feat of tracking, courage, and conservation, Kupe slew Te Wheke-o-Muturangi here in Marlborough. The meandering waterways that make up the Sounds are the tentacles of the octopus. Iwi Māori are conservationist, and have been from our beginnings. Do not discard our traditional and conservational values. What would the supposed blue cod alert be like today without Kupe?

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Iwi Māori are scientists. We came to Aotearoa in waka. We had no GPS, no radar, no chart plotters, no magnetic compass, no sexton, no laptop, no engines, nor nuclear power, carried no diesel, oil, or other pollutants. We came with the skill of science handed down from generation to generation. Over thousands and perhaps millennia of years our science had evolved into a pure form. Guess work had been eliminated. We feel that we are regarded as primitive in today's world of academics. Could your scientists do what we have done and what we continue to do? By aligning tradition and knowledge, our tohunga can tell environmental influences by sight and feelings in advance.

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Opposition to this proposal; I acknowledge my Ngāti Kuia cousins for the clarity of their opposing position. I understand them, because their position is supported by traditional conservation and traditional science. A decade ago I raised in my evidence the conflicts with traditional conservation, science, health, and the safety of the shallow-water salmon farms. What I was saying then was ignored and even discarded on the basis of modern science. Well, not so now. The shallow-water farms should be removed, but the space where they should be moved to is now clearly occupied by one of their own farms. I see this as a crafty attempt, because if they had relocated the inshore farms to the deeper-water sites in the first instance and were now applying for new water space for the farms that they recently established in deeper water, what degree of success would they have? The result is the same, whichever comes first, too many farms and too many pollutants in such a pristine and treasured waterway.

- 5 Summary; relocate the inshore farms elsewhere in deeper and more tidal waters, but not in this precious waterway. Talk to Māori tohunga and work this out, not with the, "Have I got a deal for you", approach. Māori are not about a, "What can we get from this", approach. Māori are about, "What can we lose?" That is what beckoned Kupe here in the first place. So I leave those thoughts with you. Kia ora. (Māori content).
- 10 CHAIRPERSON: Kia ora. Do either of you others -- gentlemen wish to address us at all?
- MR CHALMERS: Yes, I would like to, please.
- CHAIRPERSON: And you -- yes.
- 15 MR CHALMERS: I'm Peter -- my name is Peter Chalmers.
- CHAIRPERSON: Peter ...?
- 20 MR CHALMERS: Chalmers.
- CHAIRPERSON: Yes.
- MR CHALMERS: Thank you, George. For me the issue is -- and I think for all of us at Clifftops, the issue is fundamentally a moral one. And you gentlemen are -- have all, in fact, as have I -- have legal background, and have worked long and hard as lawyers, and are extremely well versed in moral issues. And we understand, gratefully, that this is why you have been asked to do these jobs. For us, this -- the moral ... it's a moral peril here that --
- 25
- 30 CHAIRPERSON: A moral ...?
- MR CHALMERS: Peril.
- 35 CHAIRPERSON: Peril. Right.
- MR CHALMERS: We had a process, we've had lots of processes, whereby these farms were looked at by resource management process, and then by the EPA. They were turned down, and this is a backdoor way of them trying to get more farms. I must --
- 40 CHAIRPERSON: Why do you say it's a backdoor way?
- 45 MR CHALMERS: Because it's never been done before. This is a --
- CHAIRPERSON: Does that make it a backdoor way?

- MR CHALMERS: It certainly does in the case of New Zealand King Salmon, because that is their modus operandi. They are backroom operators, always have been, and it's worked extremely well for them. And they like to get their toe in a door and then just push, and push, and push. And they have been very successful at it. Quite exactly how this has even got to this point is a fascinating question. And it seems very strange to us that the interests of an overseas company are being represented by the Government and New Zealand tax payers in this way. And it's a single company. It's not an industry, it's just one company. They are apparently able to get their way in virtually every circumstance, regardless of what evidence is provided. This has certainly been our experience over the ten years of combating these farms, trying to, anyway, unsuccessfully in the most cases.
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- 15 CHAIRPERSON: But they didn't get their way on all of those, did they?
- MR CHALMERS: They certainly got the ones in Pelorus Sound, and --
- CHAIRPERSON: But they didn't get them all, did they?
- 20
- MR CHALMERS: They were missing -- I think they didn't get one, I think, that we had actually had a judgement against anyway in the same area just a little bit earlier.
- 25 CHAIRPERSON: Yes.
- MR CHALMERS: And so that one was probably a little bit unlikely. And in many ways -- another one of their favourite techniques is to put things up that are clearly objectionable, and will be knocked out, and that are able then to allow the criticisms otherwise raised to be satisfied. And in this case the big, huge farm in the middle of the Waitata Reach is obviously a -- it's a stalking horse to be knocked out. I mean, that's pretty clear, I would have thought. If that was awarded --
- 30
- 35 CHAIRPERSON: I'm sorry, are you saying that the proposed Waitata Reach farm --
- MR CHALMERS: Yes.
- CHAIRPERSON: -- is a straw man?
- 40
- MR CHALMERS: Yes. That one is designed to be knocked out, and while they're giving the other ones --
- CHAIRPERSON: What evidence do you have to support that?
- 45
- MR CHALMERS: Experience.
- CHAIRPERSON: You're a lawyer; come on.

MR CHALMERS: Experience. From what I've seen of the -- of their techniques over the years, and this is they apply for too much, expecting some to get knocked out. This is a thoroughly standard resource-management approach, as I'm sure that you're aware. This is something that has been going on for a long time in the Resource Management Act.

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CHAIRPERSON: I'm not aware of it. Are you aware of it?

MR DORMER: I think the point is equally well made in a personal injury context, or a defamation context, isn't it? I mean, if you're suing someone for defamation --

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MR CHALMERS: Fair enough.

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MR DORMER: -- you sue for 3 million in the hope you might get 300,000.

MR CHALMERS: I can accept that.

MR DORMER: What you're saying here is that they're applying for six in the hope they might get one or two, perhaps. Is that what you're saying?

20

MR CHALMERS: Probably more than that, I would imagine. But the other thing that -- whilst we're on the topic, we would like to ask the question if you're aware just how much more salmon they're going to be able to produce from one of these deeper-water farms than from the same hectareage that they have at the moment in still-water cases.

25

CHAIRPERSON: Yes.

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MR CHALMERS: We are intimately aware of the situation in Waihinu Bay, and to a lesser extent in Forsyth Bay, where farming of salmon has become impossible because -- I mean -- and this is not an environmental trade-off, they just can't do it anymore. I'm not sure if you're aware what happens underneath these farms, given the extent of time. But the faeces builds up, it gets to sort of mountainous size. The top part of it turns to crust, and then some time downstream that crust breaks and ammonia and sulphur hydroxide goes up in plumes to the surface, killing everything above it. And so as this continues to happen they're losing tens of thousands of fish every year in these farms.

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[3.45 pm]

5 And, you know, this is -- we sat in court and we listened to the scientific evidence. There was a lot put on the role of the tape worm, and it was a special New Zealand tape worm. And we were told that the effect of the faeces is that 98 per cent -- 99 per cent biodiversity will be eradicated underneath the farms, but this wonderful New Zealand tape worm would survive, and it would eat all of the faeces that was produced by the salmon until they got to the point where they couldn't expand any more. I asked the question at the time, "Who eats the tape worm faeces?" And no one really had an answer for that for me. And 10 the answer is clear now, that the science was false, and that these farms are unsustainable. They can't be farmed because of the environment there. It was called adaptive management. We kept losing to it, as in ... because we were told that it was well monitored, and that this sort of thing could never happen. Well, it has happened. It's happened in six 15 farms, apparently, where they can no longer farm anymore, so they basically are looking to replace both farms.

20 Now, they never mentioned this in the EPA. In fact, they insisted that everything was under control and they were good environmental managers. If they are good environmental managers, why have these sites not been cleaned up? And, you know, why are they changing the mix in their feed all the time, according to the economics of their raw materials? And there seems to be absolutely no management of this either. And from their own website we understand that in -- mixed in 25 with this feed, which is fundamentally an unsustainable device, in addition to the 20 per cent odd of global bait fisheries that goes into the feed, and this is something we note that is not regulated anywhere in the world. If we grant these farms today we are increasing the global take on global bait fish. And --

30 CHAIRPERSON: On what?

35 MR CHALMERS: On global bait fish; on herring and pollock, etc, etc, that goes into this feed. It comes from deprived parts of the globe. It's processed at places like Chimbote in Chile, where you can -- if you have a look online you can see what that process entails. There's pollution plumes miles out to sea, pollution clouds hanging over the city, it's a dump. And this is part of the global reach of this industry. It's a sunset industry; they're selling a decidedly weird product. They sell a carnivorous fish that in 40 some cases is felt -- in the better cases is fed with vegetable protein. Apparently in King Salmon's case they're feeding them on blood and bone. And a lot of this is -- it all comes from -- 80 per cent, apparently, is as much as comes from freezing works. Apparently there's pork in there, as well as beef, as well as lamb. We wonder what this means for their halal and kosher markets. We assume that they haven't been told. 45 And it is not regulated in any way that we can see, and so we assume that this would be the same case here.

5 It's just a licence to go into the Sounds and dump nitrogen. And the scale of the nitrogen dumping is quite breath-taking. It's beyond belief. I mean, each one of these farms, if we understand the numbers correctly, produces about the same amount of nitrogen and phosphorous as a small town and so we have basically, if there's going to be a dozen of these farms, then we've got pretty much the entire population of New Zealand's equivalent nitrogen and phosphorus being dumped straight into the Sounds.

10 CHAIRPERSON: We were told 400,000 people.

MR CHALMERS: 400,000 people?

15 CHAIRPERSON: That's not the population of New Zealand.

MR CHALMERS: It's on the way; it's 10 per cent of the population, sure. I've got some numbers from Scotland.

20 CHAIRPERSON: Those are the figures that were quoted to us this afternoon.

MR CHALMERS: Right, they may well be conservative. Anyway, it is certainly an issue. In a world where the use of nitrogen is becoming a very hot topic, even on land we're talking about miniscule amounts of nitrogen finding its way into fresh waterways compared with these numbers and farmers use nitrogen to fertilise their crops, it's mainly from fossil sources. It is becoming rarer and rarer; it is a rare commodity itself. And here we are finding ways of dumping it into the water, which seems extraordinary to me.

30 The fundamental problem with this industry is just the waste. Each pound of salmon, and I don't know what the multiples are, but obviously it has to be fed. New Zealand farmers have never and would never farm lions by feeding them cows, they just wouldn't do it. They would eat the cows; we would eat the cows, why would we want to eat lion, it's a silly nonsense. And particularly a lion that you eat at one-third its usual lifespan and is full of chemicals and stuff that is becoming more and better known all the time for what the effects are.

40 Some of the warnings on this stuff go back 20 years and nothing's changed. If you look on the Internet now, problems with salmon farming, I suggest you just do it and see what comes up, it's just extraordinary. This is an industry that has no place in modern New Zealand, it just doesn't. It's not something that any New Zealand farmer would be proud of and obviously I can't speak for all New Zealand farmers, but it is certainly against the ethos of everything else that we are trying to achieve this country in order to raise our game internationally for our export markets and to create to create wealth and to create jobs, which brings me I guess to the next point.

5 In terms of the jobs we drove here today from Nelson through Havelock
and into Blenheim and were thrilled to see the tourism that's just
absolutely going off, people on bicycles riding everywhere. There was
the restaurants were all very well patronised; it's a wonderful thing that's
10 occurring in this area. That would be so easily taken up the Sounds but
it's very difficult to take people into an area that is turning into a toxic
waste dump. And this is what has occurred and we can speak of bitter
experience on this. It is very difficult to invest in a remote area to try
and provide jobs for local people when this sort of activity is occurring
right in front of you.

15 Again on the on the point of jobs, there will be no jobs created out in
the Sounds from these farms; there will be none. They will be
automated; that is clear. People cannot live on these farms out in the
Sounds.

CHAIRPERSON: They are now.

20 MR CHALMERS: They are in the shallow water ones they are, sure, because they're
protected.

CHAIRPERSON: We are told that there will be people on 24-hour a day, seven days a
week.

25 MR CHALMERS: We will need to develop some gills and --

CHAIRPERSON: What?

30 MR CHALMERS: They will need to develop a pretty extraordinary sense of balance and
gills.

CHAIRPERSON: That is what they've told us.

35 MR CHALMERS: Yes, I don't buy it. I don't think you'll find anyone on those farms after
six months, they will automate it all and these guys have a history of
saying things that turn out simply not to be true. They were going to
purchase their farms locally to put in Pelorus Sound; that hasn't
40 happened. I can also tell you that we have had agreements with them
that have been broken. This is not someone that deserves this favour.

CHAIRPERSON: When you say, "We", you mean the Clifftops?

45 MR CHALMERS: In my previous company we tried to do a wildlife sanctuary
development out in the Sounds and were unable to achieve that.

CHAIRPERSON: What was your previous company?

MR CHALMERS: It was called Pelorus Wildlife Sanctuaries.

CHAIRPERSON: I think we've heard about that.

5 MR CHALMERS: And, yes, we tried very hard but it was all too much at the end. Peter
here and myself were in financial markets overseas and so we have
some experience in terms of the international financing of these things
10 as well. I just want to raise the issue of the share float, which was in
September last year. Presumably this was on the books already at the
time but I think it's a pretty serious matter to be increasing shareholder
value in this manner at the expense of all New Zealanders and I think
it's a very dangerous precedent that is being set here in all sorts of ways.
15 And I think, if it goes through in any shape, way or form, even a single
farm happens with this environment, with this process, not only will
there be appeals, obviously there is no appeal process, so legislative
review is the only thing that will be open, and that will happen and it
will become a political issue.

CHAIRPERSON: And it what?

20 MR CHALMERS: It will become a political issue and it will be debated and it will arouse
a great deal of ire and attention and --

CHAIRPERSON: It wouldn't be the first issue to do that, Mr Chalmers.

25 MR CHALMERS: No, this is different, this is importing of a particular culture from
offshore that we do not want here. I do not want to live in a country
where any big company can go to the Government and say, "This RMA
business, it's a bit of a nuisance, can we just overwrite it for us please?"
30 and that is what --

CHAIRPERSON: Can I just stop you? You are a lawyer, aren't you?

35 MR CHALMERS: I am. I have been trained --

CHAIRPERSON: What is the provision that we're operating under here?

MR CHALMERS: I know it's under the RMA.

40 CHAIRPERSON: It's in the RMA.

MR CHALMERS: The regulations that have never been used for this purpose before.

45 CHAIRPERSON: So what? The provision is in the RMA. It's an RMA process.

- MR CHALMERS: Do you think it was designed, do you think these provisions were designed for a case that's already been legislated to 10 years in the EPA, in the environment court, everywhere else. The evidence has been put on the table time and time and time again, so suddenly there's some regulations there that can be used to get it in the back door, which is what this is.
- 5
- CHAIRPERSON: So you say Parliament has created a back door?
- 10 MR CHALMERS: It appears that they did and if it was meant to be used in this way they would have said so at the time but it has been used in a way that is alien to New Zealand democratic processes and I feel it will be challenged and challenged very strongly.
- 15 MR DORMER: What relevance do you think the prospect of challenge has to the way in which we exercise our discretion and our advice to the Minister?
- MR CHALMERS: Because I'm saying that I think it's a moral issue and I think that you would be very well advised to advise the Government to back right off this because it will rebound in your faces for moral reasons.
- 20
- CHAIRPERSON: Are you threatening the Government?
- MR CHALMERS: No, of course not.
- 25
- CHAIRPERSON: It sounds a bit like it to me.
- MR CHALMERS: Oh no, I am just stating my opinion forcefully; that's all. I am not in the position to threaten anybody. I'm a humble motelier.
- 30
- CHAIRPERSON: If you're asking us to tell the Government to back off, isn't that a threat?
- MR CHALMERS: No, of course not, I'm asking you to exercise your judicious abilities and your moral forthrightness as legal people to inform the Government --
- 35
- CHAIRPERSON: That's different.
- MR CHALMERS: That's what I tried to say. My language has let me down, I apologise.
- 40
- CHAIRPERSON: Well choose your words more carefully.
- MR CHALMERS: I accept that; I apologise. But it doesn't change this issue and this is what we are faced with as New Zealanders in this. And it's very unnerving; it's very disappointing.
- 45

[4.00 pm]

- CHAIRPERSON: Okay. Have you said all you want to say, Mr Chalmers, because I have somebody else we want to hear as well today?
- 5 MR CHALMERS: Sure. No, that will be fine.
- CHAIRPERSON: Are you sure; you've got your one shot here. I'm giving you --
- 10 MR CHALMERS: Okay. If there is a disaster, an environmental disaster, as there have been at virtually every other salmon farm everywhere else in the world, who will pay for it? It is a question I would like please.
- CHAIRPERSON: Some people are suggesting a big bond. Now, you've got a third person here. Just for the record, can you tell me who you are and what your position is here?
- 15 MR BEACH: My name is Peter Beach, B-E-A-C-H.
- CHAIRPERSON: Not the Peter Beach that we've already heard about, okay, you're another Peter Beach. Spelt the same way?
- 20 MR BEACH: As in the seaside, yes.
- CHAIRPERSON: And what's your function, Mr Beach?
- 25 MR BEACH: I'm one of the trustees.
- CHAIRPERSON: One of the trustees. Could I just get it clear from one of you, I suppose you, Mr Chalmers, what is the function of Clifftops New Zealand?
- 30 MR CHALMERS: Well it's citizens linking in favour of the outer Pelorus Sound.
- CHAIRPERSON: It's what?
- 35 MR CHALMERS: Citizens linking in favour of the outer Pelorus Sounds.
- CHAIRPERSON: It's a mnemonic, Citizens linking in favour of the outer Pelorus Sounds. Right, thank you.
- 40 MR CHALMERS: And the symbolism is such that from the top of the cliffs you can see the Sounds very well and it's really beautiful and you can certainly see the farms.
- MR CROSBY: Was Pelorus Wildlife Sanctuary Ltd the landowner of Port Ligar or part of Port Ligar?
- 45 MR CHALMERS: That's right, yes.
- MR CROSBY: So who owns that land now?

- MR CHALMERS: Mark Pengelly owns Te Kopi, which is the Shands are still at Port Ligar I believe, we've got Cannon Hill and Danger Point on the other side.
- 5 MR CROSBY: So do you still hold land in that area?
- MR CHALMERS: Yes.
- MR CROSBY: And do you reside there?
- 10 MR CHALMERS: No.
- MR CROSBY: All right. So are you able to assist me as to whether the pine trees that have been shown, the pine plantations near the Blowhole Point north and south sites, who owns those?
- 15 MR CHALMERS: Mark Pengelly.
- MR CROSBY: Was that land that was acquired from Pelorus Wildlife Sanctuary Ltd?
- 20 MR CHALMERS: It was, yes.
- MR CROSBY: So how old are those trees?
- 25 MR CHALMERS: About 40 years. They were pruned to 6 metres I think, maybe 7 metres.
- MR CROSBY: So are they getting near harvest?
- MR CHALMERS: They will never be harvested, there's no way that we could, we looked at everything to try and remove them. The only way of doing it was with a whole bunch of new roads and things, which would have been destructive beyond belief, so I don't think there's any economic way of getting them off.
- 30 MR CROSBY: Did you have them pruned?
- MR CHALMERS: No, they were pruned right at the very beginning but it was Martin John Shand.
- 40 MR CROSBY: Thank you.
- CHAIRPERSON: Right, thank you, gentlemen.
- MR CHALMERS: Thank you very much.
- 45 CHAIRPERSON: Thank you all for coming.
- Alistair Boyle.

MR BOYLE: Good afternoon, gentlemen.

CHAIRPERSON: Good afternoon. Now, Mr Boyle, yes.

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MR BOYLE: Right, my name is Alistair Boyle. I'm here with my wife who is back there. We are residents of Blenheim; we've been here a couple of years. We have a boat, a yacht in the Havelock Marina, where we have done a lot of cruising in the Sounds and are familiar with the area and the areas where the current salmon farm is and roughly where it's proposed to go.

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Previously, my wife and I left on our boat in 2004 and a lived aboard for 10 years and sailed as far as the Mediterranean and in that time we saw a lot of aquaculture. We spent four years in Asia, there's a lot of sprawling prawn and shrimp farms and catfish farms, and in Turkey a lot of finfish farms. I mean they are a fact of life. But none of those farms were, as far as we could see, located in enclosed waterways and certainly not in such a pristine area as the Marlborough Sounds.

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Over 50 per cent of the world's food now, seafood is farmed and I don't have a problem with it. But I think it's slightly different here in that the salmon aren't naturally occurring, you can't go and catch a wild salmon in the Sounds, well I've never caught one, and it's an enclosed waterway. So I see some distinction between the farming I've seen overseas and what is occurring here.

25

Anyway, so why am I making this submission? I don't have a problem really with aquaculture, I don't like what's happening in the Sounds, I don't like the muscle farms, but they are a fact of life. But some months ago, before this relocation process started, a friend of mine who was involved in the submissions in 2012 gave me a copy of a report just to read, which is called, "A working paper, New Zealand King Salmon, a financial perspective." Anyway, I read this; it doesn't make pretty reading from King Salmon's viewpoint. It says it was produced at their request, sorry, not at their request, because of their request to use additional water space. I've quoted from it in my written submissions, which you've got those. So I have here a copy for the Panel if the Panel should require a copy of this report.

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CHAIRPERSON: What's it called again?

MR BOYLE: It's called "A working paper, New Zealand King Salmon, a financial perspective".

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CHAIRPERSON: And who is the author?

MR BOYLE: The author is the McGuinness Institute.

CHAIRPERSON: Yes, we've heard of them.

MR BOYLE: You've heard of them? They're an independent think tank.

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CHAIRPERSON: They've contributed to the technical papers that are already involved in this.

MR BOYLE: Right, okay, well I probably don't need to go into too much detail, but essentially it questions the economic health of King Salmon and the causes of its poor performance. In particular it refers to \$6 million worth of dead salmon in each of the 2014 and 2015 years and says it's significant. And also references water temperature as being the underlying cause. Now I found this report disturbing. Anyway, I put it aside and thought not a lot more of it, but sometime later when the Ministry's consultative document appeared, reading through it I saw there's a lot about water flow problems and the economic benefits of salmon farming, but not a lot of real analysis, not a lot about water temperature, salmon deaths, or any reference to the McGuinness report, and this did surprise me.

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So thinking that this report is highly relevant, recent and independent, I thought I would come along and draw it to the Panel's attention. I mean it sounds like you already are aware of it, but --

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CHAIRPERSON: We're aware of the dead salmon too.

MR BOYLE: Yes, I mean I don't how they disposed of them, there are all sorts of scuttlebutt about taking it to landfill in the night, but I don't know about that, but all right.

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Now, so that's the report aspect of my submission. I want now to just briefly refer to King Salmon's website. It says:

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"Certain parts of the Marlborough Sounds provide an ideal environment essential for our salmon to thrive and grow."

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Well I would dispute that comment and I think the salmon would as well. They don't grow naturally here and the fact that we're having this hearing process at all means the conditions are far from ideal.

On the website there's a heading, which is called, "Tidal flow". King Salmon talk about there being:

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"Good flows of water at the sea farms where tides are continually flushing the water from Cook Strait."

I mean there are 4-metre tides in the Sounds and they are substantial so I do have some issue whether it's going to make a lot of difference by relocating these farms further out, but anyway again this comment is not true. Why are they seeking to move?

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And then there's another heading on the website, "Temperature of water". The website says:

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"Salmon thrive in cooler water and best growth is achieved at a steady temperature range of 12° to 17° and the waters in the Marlborough Sounds provide this cooler temperature range."

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Well again that's not true. According to Alaskan Fish and Game, 15°C is the maximum temperature. And despite what Donald Trump says, climate change is real. It's predicted world temperatures could rise 5°C by the end of the century. If the water temperatures in the Sounds is already exceeding the maximum, then clearly these farms are not sustainable in the long term. It is not clear anywhere in the material how long approval would be given. I suppose that is for these farms, it's up to the Minister I suppose, but presumably --

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CHAIRPERSON: It will be for the resource consent process to decide that.

MR BOYLE: Okay.

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CHAIRPERSON: Which is the next step after this.

MR BOYLE: So just getting back to the McGuinness report again, they made a profit in 2015 by suspending interest on shareholder loans and including a one-off operating item. It is my submission really that the company is marginal at best. I mean maybe by relocating it will become more economically successful. But the report says they're not financially robust and if there is, as the previous speaker mentioned, any sort of environmental issue, well I can't see them being around to clean it up. I mean I know we're talking aquaculture here, but if we were talking agriculture, to my mind an analogy would be we've got a chicken farmer here in Hadley Park wanting to move his chicken farm from one part of the park to another. That's what I think of what really this process is.

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Finally, it's my submission that if the Minister, if they're going to allow a relocation, it should only be one farm, a test farm, let them have a go for five years and see.

45 CHAIRPERSON: Have you got a preference for which one it might be?

MR BOYLE: No, none really, none. I hadn't considered that seriously but give them the best shot if you like; the one that's economically most likely to be possibly viable. Probably the one with the lowest water temperature rather than the greatest water flow, because water temperature is really to my mind the issue, not flow. But that's it.

[4.15 pm]

CHAIRPERSON: That's very clear and succinct, Mr Boyle.

MR BOYLE: Good.

MR DORMER: I presume you have no expertise in fishing matters?

MR BOYLE: Not commercial fishing, not at all.

MR DORMER: It's all right; if you had you would have notified us.

MR BOYLE: I would have, yes. No, no, I am really much here as an amateur, a concerned citizen.

MR DORMER: Yes, and that's appreciated and you are more than entitled to do that, yes. When you give a view as to what is the most important factor in economics or environmental conditions, it is not against a background of any experience or qualifications.

MR BOYLE: Not at all.

MR CROSBY: Quite clear on your views, thank you.

MR BOYLE: We have to stop now; the chairman has filled up his book.

CHAIRPERSON: Thank you very much for coming, Mr Boyle.

MR BOYLE: Thank you.

CHAIRPERSON: And your wife too. Thank you both for coming.

Now that completes the list of people that were scheduled to be heard today. There isn't anybody here I hope who still thinks they're going to be heard today. No, all right. Well I thank you all for your attendance. These hearings are now adjourned until Monday, 1 May at 10.30 am when they will be resumed here at this venue. Once again, thank you all for coming. Kia ora tātou.

**MATTER ADJOURNED AT 4.16 PM UNTIL
MONDAY, 1 MAY 2017**

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