

**BEFORE THE MARLBOROUGH SALMON FARM RELOCATION ADVISORY PANEL  
AT BLENHEIM**

**UNDER** the Resource Management Act 1991  
**IN THE MATTER** of Regulations under ss 360A and 360B of the Act  
**BETWEEN** **THE MINISTRY FOR PRIMARY INDUSTRIES**  
**Applicant**  
**AND** **THE MARLBOROUGH DISTRICT COUNCIL**

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**STATEMENT OF EVIDENCE OF MARK JOHN GILLARD IN SUPPORT OF THE NEW  
ZEALAND KING SALMON CO. LIMITED'S SUBMISSION  
Dated this 11th day of April 2017**

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**GASCOIGNE WICKS  
LAWYERS  
BLENHEIM**

79 High Street  
PO Box 2  
BLENHEIM 7240  
Tel: 03 578 4229

Solicitor: Quentin A M Davies/Amanda L Hills  
([qdavies@gwlaw.co.nz](mailto:qdavies@gwlaw.co.nz))

Fax: 03 578 4080

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## Introduction

- 1 My name is Mark John Gillard. I am the Sustainability Manager for The New Zealand King Salmon Company Ltd (New Zealand King Salmon). I have been employed by this company for over 31 years.
- 2 I take my own personal submission and that of New Zealand King Salmon as read. Some of that is repeated here.
- 3 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 Watties Industries. This was 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 text books to learn how to look after salmon.
- 4 I have had a range of roles with New Zealand King Salmon from hands on salmon farming, designing and building salmon hatcheries and marine farms, managing the freshwater Salmon farms and now looking after legislative and political matters for the company.
- 5 Prior to salmon, I was involved in the wild eel industry in various roles for 5 years.
- 6 I have made a career in the salmon industry, it has provided for myself, my wife and two now grown up children.
- 7 Both of our children went to French Pass School. I was on the first board of governors for that school. 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 head office in 1994. Our son went to Broadgreen Intermediate, then Nayland College also.
- 8 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 have been part of the Sounds and northern South Island community for a large number of years. I would not have been if not for the salmon industry.
- 9 Our son now works for New Zealand King Salmon in the processing plant in Nelson. He relies on that job and is dedicated to the company. Our daughter also worked for the company during university holidays.

- 10 I chaired NZ 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.
- 11 I have contributed to a service organisation having been a member of Rotary International in Balclutha and in Nelson. I was President for one year. I am also on the board of the Sport Fishing for Youth Charitable Trust in Nelson.
- 12 I whakapapa back to the first Maori waka (Tainui). I am Ngati Raukawa.
- 13 I am indebted to the industry for providing me with a career that enabled me to get paid to work without feeling that I was actually working, at least for a significant amount of the time. The industry is so interesting and challenging that it gets in your blood. I would recommend it to anyone.

### **My Early Involvement in the Industry**

- 14 I came to the Marlborough Sounds in 1985 to run a pilot scale salmon farm. In those days we didn't really 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 was not easy and it was easy to kill fish. Seawater introductions could not be assumed to follow on from what occurred in ocean ranching nor could fish handling. Smolt 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 learned.
- 15 My family and I were based in Hallam Cove in the outer Pelorus, where we first started marine salmon farming. As we now know that area has its problems for salmon farming, especially over the warmer summer months and with its relatively low flows and shallow depths.
- 16 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 waterblasted away from the pens on a regular basis.
- 17 I have also tried Sockeye salmon and experimented with Atlantic salmon while in Hallam Cove. Sockeye are really nice fish to farm, they are fairly docile compared to Kings but they had a major problem, they were very susceptible to sealice. It was also impossible to achieve the deep red Sockeye flesh colour expected by the market. The very small trial of Atlantic salmon using a narrow

gene pool of fish derived from freshwater stock found in the southern lakes was unsuccessful.

- 18 I have some really vivid memories of those early salmon farming days in Hallam Cove. 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 hand feed 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 sizes around the pens seemingly oblivious to me. 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 in to 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 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 could be chased away with the dingy.
- 19 I also have some not so pleasant memories such as when we experienced an algae bloom around in 1989 that killed over 30% of our fish, this at roughly the same time as the large bloom that caused millions of dollars of losses in Big Glory Bay on Stewart Island. 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 on the bottom of a net pen on scuba with dead and dying fish up to my chest and they were still raining down. We eventually surmised it was an algae called Heterosigma (the same as in Big Glory) that was moving through the farm each time the tide changed. Wearing a wetsuit that had been in dead fish all day for a period of several weeks was not pleasant.
- 20 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 salt water are an interesting combination.
- 21 Compare those humble beginnings to today: we have 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.

### **Humble Beginnings – The Salmon Industry**

- 22 The NZ salmon industry has transformed from its humble beginnings into a world class industry.
- 23 If the panel are of a mind to understand some of the history behind the industry, can I suggest they read “Swimming Upstream” by Jenny Howarth. This is a book commissioned by the Salmon Farmers Association to record its growing pains and gains. We are able to provide copies of this.
- 24 In the 1980s the first salmon seafarms 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.
- 25 Subsequently farms were established in Port Ligar and Forsyth Bay in the Pelorus Sound 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 the higher flows.
- 26 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. However in March 2006 it broke its moorings and drifted into Tory Channel. It was later safely relocated back on site at Te Pangu 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.
- 27 The next farm to move into higher flows was Clay Point in 2007 using the improved mooring system. Subsequently the three higher flow EPA sites were granted and are now growing fish.
- 28 New Zealand King Salmon has clearly demonstrated that we have been 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 1980’s when it was realised the early acquired sites were not ideal for farming salmon, many of these early sites have been abandoned for salmon farming such as in the Kenepuru and Hallam Cove.

*Evolutionary improvements*

- 29 Industry progress hasn't been without its difficulties and, as with most primary production, it has its moments. In the early days we suffered from high summer mortalities, poor fish performance and high maturation of our stocks. Today those issues have been predominantly addressed and we are now able to produce year round supply of relatively even sized, high quality fish, fetching very good prices.
- 30 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.
- 31 The last 30 years have brought 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.

*Net Pens*

- 32 The first fairly rudimentary salmon pens were established in 1984 at Hallam Cove and Ruakaka. Those I was working with were made from small galvanised pipe framed pens of 10m x 6m, and then 10m x 10m supported on mussel floats, with wooden walkways.
- 33 Net pens have improved in design and size over the years to progressively larger pens of 20m x 20m through to the current size of 40m x 40m at Ngamahau which are made from spirally welded steel pontoons.
- 34 Our Wavemaster pens are also 40m x 40m but are flexible steel platforms supported on floats that are divided into sections to allow for wave action.
- 35 Plastic circles are commonly used in other parts of the world for farming salmon. They are ideal for locations that are more exposed such as the proposed outer Pelorus locations and are less visually intrusive. 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 Blowhole 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 north east.

- 36 This relocation proposal includes a recommendation for 78m diameter plastic circle type pens as used by Huon in Tasmania to be used for the Outer Pelorus sites.

#### *Visual*

- 37 Through the adoption of dark recessive colours and lower profiles, salmon farms blend more readily into the Marlborough Sounds background. More recent consent 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. I have heard from some landscape experts the farms should be well engineered, planned and look as though they are meant to be there. The proposed farms will be next generation from those being replaced, they will have all of the characteristics identified above.

#### *Harvest*

- 38 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 with automatic stunning and bleeding.
- 39 We are currently harvesting approximately 7,000- 8,000 fish per day growing to 10,000 fish per day over the next couple of years.
- 40 Another more recent improvement is that of large road tankers that carry chilled harvested fish in bulk. Compare that to the very large number of insulated bins we previously used and are currently phasing out. I recall I calculated that each of those bins was moved by forklift approximately fifteen times for each trip.

#### *Feeding*

- 41 My first vessel in Hallam Cove was a 3.4m Parkercraft dinghy and feeding was conducted by hand using half a Janola bottle as a scoop from 30kg paper bags. Feeding is now very highly sophisticated with cameras, computers and blowers. Remote feeding of farms is carried out from other farm locations through the use of wireless technology.
- 42 Feed is the largest expense for the company. Feed type has changed since we started, from feeding pressed pellets to now using the more digestible and less wasteful extruded pellets. Increased substitution of marine origin raw material with land animal and plant 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.

#### *Predator Management*

- 43 Predator nets are continually evolving to keep seals from accessing the farms. These completely surround each farm. Many other options were trialled over the years but full surround predator nets are currently considered the most suitable option. I have already mentioned the early use of false floors on our nets to keep large and small (dogfish) sharks from the pens.

#### *Improved netting*

- 44 Early nets were relatively simple in design and manufacture. Today our nets are very large at up to 40m x 40m, 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.
- 45 A new net material has recently been introduced on a farm in Tory Channel, this will enable faster net cleaning due to use of different material. In addition, the company is gradually phasing in black nets in place of traditional white nets as one of the measures to make the farms less visible.

#### *Net cleaning*

- 46 Salmon nets are an ideal growing area for biofouling 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 and now uses 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 antifouling material on its nets.

#### *Moorings*

- 47 Mooring technology has improved considerably. The company first started using mussel farm technology involving large wedge shaped concrete blocks, ground chain and mooring rope, these had a tendency to drag across the seafloor.
- 48 In 2006 the Te Pangu farm broke its moorings, we have learned a huge amount from that exercise such that now along with the engineers and installers we have a virtually bullet proof mooring system now sought after in other

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

#### *Underwater lights*

- 49 Salmon use day-length to trigger maturation, using lights (as is done in freshwater to synchronise maturation) the fish can be reared without the natural photoperiod trigger. The use of underwater lights has proven a major advantage in that maturation has been significantly reduced from up to 50% to currently less than 5%, allowing a harvest of a larger number of fish and consistent year round supply. The company is continuing to commission these across all of its sites.

#### *Remote technology*

- 50 Recent acquisition of a remotely controlled vehicle (ROV) is now enabling in water investigation of the farms, fish and benthic environment without divers, a better solution from a health and safety perspective, but also for more regular monitoring at a lower cost.

#### *Remediation*

- 51 New Zealand King Salmon, together with Sanford and Ngai Tahu, contracted Cawthron to carry out a small-scale trial on seabed remediation on its Forsyth Bay salmon site. Council has a copy of the report. Several different techniques were trialled with moderate to limited success, the most promising being to remove the organic layer. However, the trial was only small scale and expanding to a full commercial trial is not without its problems with many unanswered questions such as what equipment, how to store liquid extracted substrate, how best to treat the waste and what to do with it. The risks are significant and the merits debatable when compared against a natural recovery process that has been demonstrated on the same site. That natural process demonstrated that the Forsyth site was fully functional after a couple of years and fully recovered after nine years.
- 52 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 present to Seafood Innovations Limited for funding. It is our opinion that it will be better to allow for self-remediation until such time as it is clearly demonstrated there is a risk free alternate strategy.

### *King Shag*

- 53 The last thing we want is to be accused of contributing to the demise of the King Shag.
- 54 We currently have conditions on the two sites in Pelorus (Kopāua and Waitata) granted through the EPA process that include 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 the decline. 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, Marlborough District Council and New Zealand King Salmon. 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.
- 55 The next count is 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.
- 56 We expect to be able to use the King Shag Management Plan and any revisions thereof (as allowed for in the Plan) on the relocated sites.
- 57 New Zealand King Salmon has been part of a recent workshop that included industry participants (mussels, forestry), the Department of Conservation (Graeme Taylor), MPI and Rob Schuckard. New Zealand King Salmon is firmly committed to ensuring the survival of the species and 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.

### **The Policy Environment**

- 58 I have been involved in at least three reviews of the marine farming legislation. I am now involved with National Direction for Aquaculture, which MPI is currently leading. We still haven't managed to get it right, but there has been a

huge amount of effort expended by a lot of people, industry and government in trying to improve the policy and regulatory environment.

- 59 A reason we are involved in this current site relocation process is because we definitely haven't got it right in Marlborough.
- 60 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 hear from Mr Davies. 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 finfish species, including snapper and Kingfish farming that were attempted in the Marlborough Sounds, are but two examples. Salmon rearing attempts on Inner Sounds sites also add to that list.
- 61 Based on my experience, I firmly believe the salmon industry has a very bright future if appropriate rearing sites can be used.

#### **Site Selection**

- 62 I was the New Zealand King Salmon lead in the EPA processes that granted 3 new farm sites and have been actively involved in looking for new sites for many years. I am sure suitable sites are very few in the Marlborough Sounds and this may be the last gasp for new salmon space in the Sounds should this process led by MPI be successful. To clarify however, there are sites suitable for the species, but competing uses makes availability extremely contentious and potentially so difficult to apply for that they are effectively not available.
- 63 There is a range of desirable site characteristics for a salmon farm including high flow, relatively cool water ideally 12°C to 17°C, over 30m ideally 40m plus depth. Higher flows can assist in moderating the effect of temperatures over 17°C. 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.
- 64 I have been party to the site selection process carried out for the sites being consulted on and believe they are better for farming salmon than our lower flow sites.
- 65 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 focussed more on obtaining space better suited to the

species, but we did not know what we did not know. Over the years it has become clear that the early sites are sub-standard, many of these have not been used for many years, such as those in Hallam Cove that were vacated in the late 1980's. Converting mussel farms is not the answer unless there are lots of them to allow for rotational use.

66 As I have outlined already, I was instrumental in setting up the first farms for the company in Hallam Cove then moving further out to Waihinau, Forsyth and Port Ligar as we came to realise the Hallam sites were not ideal. 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 search for the most appropriate sites for salmon farming began back in the pioneering days. Back then it was based primarily on trial and error. Now we have the benefit of experience, science, and collaboration with many experts and stakeholders. The philosophy behind this relocation proposal is not new.

67 In my opinion if we can move from the lower flow sites of Crail Bay, Forsyth Bay, Otanerau Bay, Ruakaka Bay and Waihinau Bay to those proposed there will be major benefits environmentally, socially and economically.

68 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 other 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 reasonably be expected.

#### *Offshore*

69 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 risks in what will be extreme conditions have not yet 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 do go offshore that these risks have been addressed. That time is not now.

#### *Other New Zealand water space*

70 I have 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

obtained three, each with a 35 year term of consent. Evidence including maps showing a range of constraints were presented.

- 71 In summary very little suitable space has been identified that is ideal for salmon farming, there are always site specific issues of concern to someone. 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 also good. The Pelorus however has a slightly higher temperature regime in summer so is more marginal but well proven able to be farmed. We have farmed Waihinau for over 25 years.

### **Environmental Management**

- 72 Environmental management both from a company and from a Marlborough District Council (Council) perspective will become easier and more effective as the standards under Best Management Practice Guidelines: Benthic (BMP) are adopted. The BMP was 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.
- 73 Consenting has evolved over the years; in the 1980's it was a simple template type 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. The EPA process for obtaining the three sites was expensive, contentious and challenging for all parties.
- 74 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.
- 75 To monitor compliance with consent conditions, reviews of the 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 seafarms are in overall compliance

with the environmental quality standards contained in individual current consents.

- 76 BMP guidelines for water quality are being developed with scientists, and we expect these to be implemented within 1 - 2 years.
- 77 To facilitate the transition to benthic best practice, all seafarms are already tested against these performance criteria. These BMP guidelines will form part of consent conditions, at the latest when existing consents are renewed. We have begun the process.
- 78 Results from 2017 monitoring of the high flow sites are not available at the time of writing this submission however will be made available to the panel as soon as they are received.
- 79 The 2016 monitoring of the lower flow sites has shown they are all compliant with their consent conditions however not able to achieve ES5 if BMP were adopted at current discharge levels. Ruakaka would require a significant management response, Otanerau would require less of a response and Forsyth would require destocking. Forsyth is currently fallow. Zinc levels are elevated across all sites and copper is elevated at Otanerau. Waihinu Bay does not have consent conditions in relation to benthic, but would be compliant against BMP, although only because of reduced tonnage, some fallowing and being able to move pens around the site. The consequences for the company of reducing production (discharge) should it be required is addressed by other presenters.

### **Conservative Modelling**

- 80 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. Seabed characteristics, especially at the central Waitata site, are pretty devoid of anything significant, I have viewed the videos taken when potential sites were being identified. I believe from a fish farming perspective this is potentially the best site in Pelorus Sound.
- 81 A key aspect to be taken into consideration at the central Waitata site is that depomod modelling identified that it could be possible to discharge up to 12,000mt of feed and remain within the ES5 standard (ie. consistent with BMP). The current proposal however is only for 7,000mt, a significant reduction which gives by default a significant safety margin. I believe the effects on the seabed will be very minimal, even more so given that the

starting feed discharge is proposed to be 3,500mt. 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.

- 82 MPI has taken a conservative approach. All of the proposed sites, except Tio Point, are starting at 50% 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 BMP standards can be complied with.

### **Marlborough Salmon Working Group**

- 83 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 will make a few brief comments on some specific concerns that have been raised.

### *Landscape/tourism*

- 84 Landscape was a significant issue for some members of that group, especially regarding the three outer Pelorus sites. The opinions tended to reflect an emotional and unrealistic impression of the outer Sounds.
- 85 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, they are very few when you compare it to the tourist activities operating out of Picton. People would have you believe that tourism has a bright future for the outer Sounds, sorry I don't agree.

### *Navigation*

- 86 I take the view that if you are in the outer Sounds and cannot navigate safely you should not be in charge of a vessel, especially that far out. I believe the 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 am relatively familiar with the area and what is required from a navigation perspective.

- 87 I also don't believe that there will be a significant increase in cruise ships or other large vessels visiting the Sounds. Even if there is, then the multidisciplinary 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. Additionally the space available to navigate around the proposed mid channel farm is significant. I have seen videos of large cruise vessels overseas navigating exceptionally narrow and potentially dangerous passages. The proposed mid channel location of a salmon farm in Waitata Reach does not create a narrow and dangerous navigation passage.
- 88 The proposed farms will be fitted with the recommended navigational aids such as navigational lighting and radar reflectors. AIS may be 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.

### **Conclusion**

- 89 Production of premium salmon is a far cry from when we started, we had seasonal supply of variable sized fish that were at the bottom of the pricing scale compared to other salmon. We were price takers. Now we set the standard and fetch prices exceeding other national and international suppliers. I am indeed proud of where we 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 outcome. A win-win for all parties.
- 90 My time in the industry has been tremendously gratifying, we have come a long way, New Zealand King Salmon has many times been leading the way in developing new techniques and technology. We are 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 smolt production, processing and marketing.
- 91 I wish I were young enough to start again from the beginning, it's a great industry with great people working in it and associated with it.

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Mark John Gillard