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THE LEGISLATIVE COUNCIL SESSIONAL COMMITTEE GOVERNMENT ADMINISTRATION A MET IN COMMITTEE ROOM 2, PARLIAMENT HOUSE, HOBART ON FRIDAY 21 FEBRUARY 2020.

FINFISH FARMING IN TASMANIA

Mr WES FORD, DIRECTOR, ENVIRONMENT PROTECTION AUTHORITY, WAS CALLED, MADE THE STATUTORY DECLARATION AND WAS EXAMINED.

CHAIR (Ms Webb) - Welcome; it is good to have you here, Mr Ford. Welcome to the public hearings of Government Administration A Subcommittee Inquiry into Finfish Farming in Tasmania.

As you would be well aware, all evidence taken at the hearing today is protected by parliamentary privilege but may not be so when you step outside the hearing. We are going to be recording the evidence today. It will be available in *Hansard* when it is ready. It will also be broadcast.

You have not provided a submission to speak to, but you may wish to make some opening statements before we then have some questions to address to you. If there is anything you think we need to consider hearing in camera, you can make that request or suggestion and we will consider it.

Mr FORD - Thank you, Chair, for the invitation to participate in the committee given that I did not lodge a submission. Just on that point, I determined that the DPIPWE submission dealt adequately with the regulatory and legislative regime and therefore I did not need to provide a further submission to explain how the system works, but I fully anticipate I will deal with questions in that sense as they arise.

I want to make only a very short statement about the context of environmental regulation for the purposes of the committee and for the purposes of *Hansard* and your future deliberations.

The Environmental Protection Authority is created under the Environmental Management Pollution Control Act. The authority consists of board and a director; and the director is a member of the board. At law, the appropriate interpretation of that is that there are elements in the act where I operate as a member of the board. Those functions are defined in the act. There are elements in the act where I operate unilaterally as the director. That is defined in the act as well. There is a distinction between the board and the director in their functions.

In relation to salmon farming, in June 2016 the government of the day announced it was going to transfer the day-to-day environmental management of the salmon industry, including freshwater management, to the Environmental Protection Authority. That was achieved initially by way of delegations from the Minister for Primary Industries and Water under the Marine Farm Planning Act and the Living Marine Resources Management Act and by the Secretary of the Department of Primary Industries, Parks, Water and Environment under the Marine Farm Planning Act and also the Living Marine Resources Management Act. Those delegations respectively are dated 29 and 30 June 2016. Those delegations remain in place and there are still functions that are dealt under those delegations. I will come to that as questions get into a level of detail.

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As you are aware from the parliamentary process, the Government implemented legislative change to the Environmental Management Pollution Control Act. Those changes through the Finfish Environmental Regulation Act passed and received royal assent in December 2017. We then went through the process of issuing environmental licences. Again, I will go to all the detail the committee would like.

CHAIR - Thank you for that. Much appreciated. I will kick off by asking you some general questions relating to the sustainable industry growth plan because that is an element to our terms of reference.

In the first instance I am interested to hear about how the EPA was involved in the development of that plan, in a broad sense, I suppose, and then in the subsequent review and further planned reviews. What is the role there?

Mr FORD - As the plan was being developed, which was clearly post the 2016 process, I was consulted on a range of environmental matters that I thought were relevant from the planning process. I had input into the sorts of commentary about ultimately having some environmental standards to regulate the industry. That was really about the extent of my input. It was limited to around what it would mean from an environmental management point of view.

CHAIR - In terms of the review that occurred after the first year, were you part of that or did the EPA provide some form of input?

Mr FORD - We provided some input into it. I had the opportunity to comment on it before it was finalised.

CHAIR - In either of those processes, from the initial input you provided when this plan was being developed or in the review process, was the EPA involved in any sense in informing the Government's assessment of the industry growth target in that plan?

Mr FORD - By the industry growth target, you mean the size of the growth?

CHAIR - Yes. The industry has a growth target to grow to a \$2 billion industry by 2030. The Government quite explicitly endorses that growth target in the plan, so I'm asking: did the EPA have a role in informing the Government's assessment of that?

Mr FORD - No.

Ms FORREST - On that, I understand some work was commissioned. I'm not sure exactly at what stage - whether it was before that first-year review, or after that, or during that process that you were doing some work on looking at world's best practice regulations across a whole range of areas within the finfish farming area. That report has not been tabled or made available, so can you give us an update on that report, and what has happened with that?

Mr FORD - The report was released publicly yesterday.

Ms FORREST - Oh, really?

Mr FORD - Yes.

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Ms FORREST - Do you have a copy?

Mr FORD - I do have a copy that I can formally table, if you wish me to do so.

Ms FORREST - Yes, please. It would be good to have a chance to look at that, which we will at some stage, but -

Mr FORD - Sorry, just bear with me.

CHAIR - That's fine.

Mr VALENTINE - We know what it's like to have wads of paper.

CHAIR - We'll all be shuffling papers today at different times.

Mr FORD - I would suggest I didn't put it in my pile of papers. Sorry - yes, I did.

Ms FORREST - Is it published on your website?

Mr FORD - Yes, it is published on the website. The document was published on the website yesterday.

Ms FORREST - I will probably need time to have a look at that, to actually ask some questions, so it is a bit disappointing it is so close to this hearing.

Can you give me a time line for this? When it was it commenced, and why has it been delayed until today? I would like a pretty full explanation about how this was initiated, how it was undertaken, and what process was involved that saw it delayed until being released only yesterday.

Mr FORD - I suppose the need for the work, and the justification of the work, really stemmed from the closing comments of the Blue Future symposium in December 2017. In that sum-up process, as a result of those few days of deliberations, I made a statement and a commitment that in order to understand what would constitute world's best practice, we will actually need to do a piece of work to determine how to actually evaluate environmental management systems. That was the genesis of the piece of work.

Following that, there was a request from government to do that piece of work to coincide so as to allow the Government to develop an environmental scorecard, which is one of the Government's deliverables, which was a quarter 2 deliverable in the Government's current deliverable plan, so the work was undertaken and commissioned as part of that process.

Yesterday, as well, the Government released its Environmental Scorecard. Because this work informs the Environmental Scorecard and is still only in draft form, we haven't been able to finalise this work yet, because I have put it out for international peer review, and I don't have the results of that peer review process, so this is why it is a draft document. This document has taken the best part of a year to compile. When you look at the extensive list of scientific literature that had to be reviewed, you can understand why such a document takes a while to compile.

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Ms FORREST - Who did you consult in developing this? I understand this is a big body of work. I'm really interested in the intersection between this and the scorecard, if they have both been released on the same day.

Mr FORD - The group of people who were involved in putting this work together were staff from the EPA, IMAS and the DPIPWE Marine Farming branch - so that's where the expertise came from. There was no process in relation to seeking further input. There was no consultation process. No input was sought from outside parties around the information, so it was an internally generated EPA document.

Ms FORREST - There was no information sought from the current operators in finfish farming in Tasmania? They have been operating in the space for some time. There was no input sought from them, or provided by them?

Mr FORD - No input was sought from them. A workshop was provided late last year to explain to them what our findings were and to give them an opportunity from their international experience to tell us whether they thought what we said was happening in other countries was correct or not. There was no input in the development of the document from that industry.

Ms FORREST - Did the feedback provided at that time alter in any way your overall findings? I haven't had a chance to look at it so I don't know if you have made recommendations or whatever in it. Was their input in any way taken on board?

Mr FORD - It was a workshop to discuss our findings. As a result of that workshop, there were no changes around the findings that the staff had made around the scientific research. It is essentially a heavily weighted scientific document around an analysis of a large amount of documentation available in other countries on their regulatory system.

Ms FORREST - I assume without seeing it - I am asking your view on it and you may not be able to answer this - the Government scorecard is their assessment of how the industry operates against these regulatory frameworks that exist in world-best practice in other parts of the world. Is that how it is supposed to work?

Mr FORD - The scorecard released by the Government yesterday draws heavily on the findings of the review. The scorecard makes no judgment on performance against the environmental systems in Tasmania or any other countries. It reflects what is occurring in countries, not how well it is being used.

CHAIR - So the scorecard isn't for industry here to utilise against a set of international regulatory standards that you have identified through this work as being ideal?

Mr FORD - The scorecard extracts information from the review document around environmental regulatory systems in other countries. What it doesn't do is then make any further commentary on how well those countries, or industries in those countries, are actually performing against those environmental systems, including here.

CHAIR - In the review document of the industry growth plan under action seven it says -

The EPA and Institute of Marine and Antarctic Studies (IMAS) have been working on a register of international best practice.

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I take that to mean this document?

Mr FORD - Yes

CHAIR -

For salmon farming and a method to measure industry's performance against it to form the basis of publicly available industry score card. The score card will be available on a new salmon data portal website.

That sounds to me like the intention is to measure somebody against this scorecard. I take it to mean the industry locally. Are you telling us now that is not the intention of the scorecard?

Mr FORD - In terms of the review process, a parallel piece of work is being undertaken by Institute of Marine and Antarctic Studies funded by the Fisheries Research and Development Corporation that is looking at the performance of countries against environmental standards. That is a more substantive piece of work that has not yet been completed.

Mr VALENTINE - Does that include land-based activity overseas?

Mr FORD - No.

Mr VALENTINE - It is only marine-based.

Mr FORD - The current review only focuses on the marine activities.

CHAIR - I hear what you are saying - that there are still international circumstances being looked at by those entities that you just mentioned a moment ago. I am particularly interested in understanding accurately what the intention is in having a scorecard in relation to the local industry. It appeared quite clearly communicated to me, and perhaps you could enlighten me if there is a different interpretation in that review document for the growth plan, the intention was to have a scorecard, which we would all expect to mean that we measure something against it, and the result of that measurement would be made available. It seems to imply that thing would be the local industry.

Explain now: what is the function of the scorecard, and how will it be used?

Mr FORD - The first point is that the scorecard is the Government's scorecard. It is not the EPA scorecard. It is for the Government to determine how it will be used and what it means.

I think in practical terms, it is a snapshot of a point in time around management systems occur worldwide. What it is not, and what it cannot do, is point to a process for the future. Your questions around what are we going to be measuring this industry against in the future comes back to the question of: what are our environmental standards that we are actually measuring industry against? We can spend a fair amount of time talking about the past, or we can spend a bit of time talking about the future.

CHAIR - It is probably valuable to us to spend time talking about both. I would think we'll do a bit of each today.

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The environmental standards are the instrument that you are suggesting is what would locally fulfil the function of measuring the industry against, in order for, broadly, the public, everybody, government as regulators, to know how the industry is tracking against a set of standards that are agreed to be an ideal situation in managing this industry.

Mr FORD - In his submission Dr Klumpp made comment about the opportunity that he and I had to travel to the Northern Hemisphere in early 2017 to look at what occurred there.

One of the members asked Dr Klumpp what his learnings were. He talked about biosecurity arrangements.

For me, the learnings I took from the countries that we travelled to - we travelled to British Columbia in Canada, to Scotland, Norway and to the Faroe Islands, and they all have systems where they have an environmental standard by which to measure performance against their industry.

We clearly don't. My view, in terms of the advice I have brought back to the Government, is that we need to develop an environmental standard. Having an environmental standard means that there is transparency about what the environmental measures are, and how they are achieved. There is consistency over time because the standard will apply today and it will apply tomorrow. There is certainty for the community, industry, and government. At the moment, we are going through a process to develop such a standard.

CHAIR - Is this standard what is referred to in the growth plan under action 12 in the review? It says -

[TBC]

The Government will cooperate with industry: to develop outcome-based performance measures; to encourage the use of emerging technology and continuous improvement.

Is that the same thing as the standard you are referring to?

Mr FORD - That's in part. Those sorts of actions would feed into a standard, and would be part of a standard. The standard itself would, in my view, have more substantive information or prescriptions in it, as limited to by that action.

CHAIR - Where are up to with the development of that standard? What is the process from here?

Mr FORD - From the EPA's point of view, we are working through our views internally, about what we think that standard should look like. The review document itself is a critical piece of information to bring to the table for an EPA point of view around what other countries do and why they do them.

The review document is a summary of a large body of work. We are looking at some of the elements of what other countries do and trying to evaluate whether that would constitute something that is applicable in Tasmania. We are amassing that information.

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In order to progress, there are really two ways to have a standard in anything. The EPA works in both arenas. One is to have a standard that has some regulatory carriage. Another is to have a standard that is endorsed by the EPA board. In relation to a number of national measures, things like air quality and soil contamination, the EPA works against a set of national standards. How we manage quarries, landfills or biosolids in Tasmania are all effectively EPA environmental standards. So the Tasmanian Quarry Code of Practice is, in effect, an EPA standard for running quarries.

The Government makes regulatory standards, so it is for the Government to determine how it wishes to proceed from a regulatory point of view.

CHAIR - So the Government will decide whether it is either the regulatory carriage or endorsed by the EPA board model? In the meantime, is it tasked to the EPA to develop these standards? Is it the responsibility of the EPA? You said you are being informed by the work you have done with the review. Is it tasked to the EPA to do the work of developing the standards?

Mr FORD - I believe it is the responsibility of the EPA to do the work, because irrespective of whether there will be a regulatory standard or not, there needs to be a standard for which I, as director, can operate.

The reason I say that is that at the moment we have a robust set of licence conditions across the environmental licences for salmon farming, but I can change those licence conditions tomorrow, next week or next month. We run the risk of lack of consistency if we are managing only by licence conditions. As people have commented on a number of occasions in relation to the question about transparency, there is no process that allows those licence conditions to be developed in an open and transparent manner.

Having a standard in place, whether it is a standard that is endorsed by the EPA board or whether it is a standard that has a regulatory basis, still means that for the director - and next week there could be a different director - there is a process where the director can make the decisions around how to regulate this industry in a manner that has a higher level of transparency than it does now.

CHAIR - I hear you are saying that it helps to provide to you, the industry and the general public comfort around transparency and consistency in the application of the regulations.

Mr FORD - In essence, in answer to your question, we are doing the work anyway.

CHAIR - Excellent. Can you talk to me more about the process you are undertaking to do that work? You have described the stage you are in now, being informed by your review and internally considering. What else will happen in the process of development? Who else will be involved?

Ms FORREST - And the time lines may be helpful in that process.

Mr FORD - In order to answer the question, I will answer it on the assumption that the standard will be a regulatory standard because that changes the process and changes the time line.

To be a regulatory standard, there would need to be probably five documents released at one time. The first document would be the finalised review, once it has been peer reviewed by international people who say, 'Yes, you have this right around what is happening internationally'.

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At the same time you would release a draft standard - 'Here is the standard, here is what it would look like'.

You would also release an explanatory document explaining why the standard has been proposed the way it is. They are not the same thing. Because it is a regulatory instrument, there would have to be under the subordinate legislation act a regulatory impact statement. Then there would be the draft regulations themselves.

Ms FORREST - These would be released at the same time, are you saying?

Mr FORD - It all needs to be released at the same time as a package so the community can understand all the elements of this.

To get to that stage, a number of pieces of engagement need to occur. There is clearly engagement with the companies around what is being proposed and why, but there is also a need to engage with a targeted sector of the community on what this would look like.

I anticipate that when we have some documents and we're at a point where we can start to talk to people about it, we would have a series of workshops with a range of stakeholders and say, 'This is what we are proposing and what are people's views about that?' So the first time people see it is not when it goes out for a formal public consultation under the regulatory impact statement process.

CHAIR - Can you describe some of those stakeholders who might be involved at that workshop stage?

Mr FORD - In order to run this in a manner that is efficient, you'll need to have a number of workshops because there will be some very specific and detailed issues industry will want to look at. This process itself has raised and identified a range of organisations and individuals that might feel they would like to be involved in that process, and we will be working with a range of people. It is a case of who would like to put their hand up, to some extent. It is always one of those things that is hard to manage. In this state we have no formal set process or a process that identifies that it must be this group of people.

CHAIR - Have you a comparative process you have undertaken in another circumstance that you could point to as an example?

Mr FORD - Not one that is particularly relevant. When we updated the Quarry Code of Practice, before finalising it, we consulted with the quarrying and concrete and aggregate industry, and so on. We consulted with the industry that is going to be impacted. We consulted with local government which, for quarries, are directly relevant. In terms of an undertaking and the size of the task from an EPA point of view, in my near five years in the job, this would be the single biggest one of these that we have attempted.

CHAIR - And the time line?

Mr FORD - If we go down the regulatory pathway, and we are looking at that when we release this information, my view would be that we will be seeking to get the consultative process and the drafting process completed this year. As we all understand, we can put a time frame on the start of a consultative end process, but then the consultative process and the regulatory process itself will then dictate particular time lines.

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Ms FORREST - Following up on a couple of those things, the intention is to get that started this year?

Mr FORD - We are well started, getting it to a point where we can have an open consultation and documents in the public arena.

Ms FORREST - When do you anticipate publishing these five documents you have referred to?

Mr FORD - In answer to that, the first part of that question comes back to a timing issue for government around the position on it being a regulatory standard, because in order for me to even get authority for the Parliamentary Counsel to draft regulations, as you would appreciate from the subordinate legislation process, the Government has to endorse that as the way forward.

Ms FORREST - The Government hasn't done that yet?

Mr FORD - That is a process the Government has to consider in terms of its whole salmon growth process. At this point I don't have a clear direction from government that says we are going to have a regulated standard. That will clearly be a matter for the new minister to be considering.

Ms FORREST - We have a sustainable industry growth plan. It has raised some concerns in the broader public about the rapid expansion - basically doubling the amount of fish in farms in some areas of the state. That is being proposed and somewhat progressed in the absence of a regulatory standard. Is that a fair statement?

Mr FORD - Yes, but it is an incomplete statement. You have to come back to a position that says we still have robust licence conditions in place, and the industry is regulated, and will continue to be regulated in the short term under a set of robust licence conditions - and those which I am responsible for under the environmental licence provide for a framework in which to regulate and continue to regulate the industry as it is today, but also the industry as it may expand in the near future.

Ms FORREST - As the Director of the EPA, do you believe the rigour around the environmental licence conditions, and the process around determining what they are, monitoring them and overseeing that is adequate? If you were to see the expansion continue, assuming the Government goes down the path of regulation - and we still don't know that; it is a question for the minister if we get the minister to turn up - are you confident in your role that it is adequate to manage, until we get to a standard that will then apply to all finfish farms operating in Tasmania?

Mr FORD - The simple answer is yes, but in order to expand on it I need to take you back to the process in relation to creating the environmental licences, and where we stand with those environmental licences.

When royal assent occurred in December 2017, the legislation created a mechanism where the licences needed to be granted, and where those initial licences were granted by way of transferring the environmental conditions as they stood in the marine farming licences under the Living Marine Resources Management Act to be the licences and licence conditions under the the Environmental Management and Pollution Control Act. That process started occurring in March 2018. We had to develop a licensing system before we could start issuing licences. The first round of those licences -

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which represents around 44 of the licences or so now - still have the conditions in them largely as they were when they were in the marine farming licences.

Since then, three new licences have been granted and, if you look at the progression of the conditions on those licences, the first of those were amendments I made to Spring Bay's licence at Okehampton Bay to allow Tassal to operate. I did that under delegation, so there was an amendment of the marine farming licence. Those conditions, in my view, are more onerous and have greater requirements on them than any of the other licences that came to us.

Then, when you look at the new licences that have been granted for Storm Bay - one to Huon Aquaculture in relation to Yellow Bluff, and the first of the package of licences to Tassal in relation to the West of Wedge leases - I contend that the conditions in those licences have lifted up again.

Ms FORREST - What I am hearing, Mr Ford, is they are not consistent.

Mr FORD - They are not consistent. The challenge in the consistency space is that when you are dealing with issues as they arise, and you are presented with them here and now, you develop conditions around the here and now, and that then informs you with the development of the next licences and the next set of conditions.

I cannot sit here and say we are at the end of a process of amending conditions of licences, because the reality is we are probably not. For me, that is what the standard means. The standard starts to codify not only the prescriptions, but also gives a clear reflection around how the discretion operates. My early thoughts on how this standard would operate is that it would be similar to a planning scheme where you have some prescriptive approaches, or you have some alternate approaches where you can clearly demonstrate -

Ms FORREST - Discretionary?

Mr FORD - Well, discretionary. If you look at a planning scheme at the moment, you can either take the permitted pathway, or if you can demonstrate a level of equivalence - so the onus is back on the proponent and the assessor - there is a mechanism to deal with alternates.

We have started looking at how you actually do monitor some of those, because a prescriptive monitoring regime across all marine farms - what you do in Macquarie Harbour and what you do in Storm Bay and what you do in the lower part of the Huon are not the same. The system has to be able to accommodate those changes. At the moment, it is just done on an individual licence basis. If you go through and do a careful analysis of licences, you will see there are differences between even the three new licences we have generated.

Ms FORREST - One criticism made by other witnesses and in submissions to this committee is that the EPA is not an independent statutory authority.

Do you think that in any way limits your capacity to fully assess matters raised of an environmental nature and threats to the environment, whether it be in finfish farming or any other area - but we are looking at finfish farming at the moment? I would like your views on that, because there have been suggestions that it should be an independent statutory authority - a bit like our Auditor-General or the Ombudsman, and other bodies such as that.

Mr FORD - I operate within the legislative

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framework that the government of the day or previous governments have established. Where the EPA sits in a degree of independence is hard to pin something down. It clearly doesn't sit at the level of independence of the Attorney-General or the Ombudsman, but it is more independent than - if I just deal with DPIPWE, for example - for the Director of National Parks or the Director of Crown Lands. In legislation there is a range of different statutory prescriptions.

Ms FORREST - Degrees of independence?

Mr FORD - Degrees of independence. Legislation often struggles to actually spell those out. In terms of the legislative accountability sense, I don't report to a minister; there is no role for the minister in relation to my decision-making. In fact, there is not really a role for the board in my decision-making in those parts where as I am acting as the director.

Ms FORREST - Whom do you report to?

Mr FORD - I don't report to anyone.

Ms FORREST - Is that a failing in the current legislative framework?

Mr FORD - I don't think that is for me to comment on. My job is to work within the legislative framework as it exists. Others need to make determinations around what is an appropriate legislative framework for Tasmania.

CHAIR - You described different levels of independence that can exist and you operate within what you are statutorily designated to do. You also receive ministerial instruction overarching your work?

Mr FORD - No.

CHAIR - Nothing that you do in relation to the marine farming industry has to refer back to any sets of instructions or overarching directions that have been given to you by the minister?

Mr FORD - I don't take any directions from the minister or the Government in relation to the regulatory decision-making process. That doesn't mean that I don't engage with government on a range of matters. This is not just about salmon; you could have the same conversation about the mining industry or the waste industry.

The intersect between the government framework and what I have to have statutory regard to is, in part, laid out in legislation. I have to have statutory regard to a state policy under the State Policies and Projects Act. For example, the National Environment Protection Measures, which measure for air and for contaminated soil, are state policies by legal definition. I have to have regard to those.

Government can set a policy agenda. Another particular one is the State Policy on Water Quality Management. There is a lot of criticism in a general sense around water quality. Most people will fail to understand what is in the State Policy on Water Quality Management. That sets the policy prescription that I make my own decisions. All councils making decisions associated with water also have to have regard to the State Policy on Water Quality Management.

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Am I completely independent from a government position? No, I am not. Is there any day-to-day direction that says, 'The minister says you must do this'? No, there is no framework for that.

CHAIR - Is there a high-level direction that overarches and therefore is of consideration to you when you are undertaking a role? Let me try to be plainer in asking you about it: you can indicate to me whether there is a connection.

In the Sustainable Industry Growth Plan of the Salmon Industry, the industry has a growth target which the Government has endorsed and supports. The Government's decision is to support that target and therefore they say that is what they want to see. How does that intersect with any considerations you have within your role or any decision-making processes that you undertake.

Mr FORD - Probably the best way to answer that is to come back to the real issues confronting us.

When it went into a planning process with industry around Storm Bay, the government of the day basically advised industry that their view was that expansion in Storm Bay needed a cap. So, 40 000 tonnes was the cap that government proposed to industry. That's laid out in the three planning documents released in late 2017.

In its development, my view was that there needed to be a whole point lower than 40 000 tonnes until we could be satisfied through biogeochemical modelling work that 40 000 tonnes or a higher amount were going to be manageable. Through communication to government and to industry, and through the planning process, I indicated that the holding point should be at 30 000 tonnes. I would initially be capping it at a point when it becomes appropriate to cap the nitrogen in Storm Bay. I have taken a view independent of what the Government view was. In fact, some would argue that by merely taking that position, I've put a constraint on growth, which is holding industry back and is slower than what they might have anticipated at the time. That is one example.

An alternative and topical example of a question around the future would be the notion of the EPA ceasing the operation of flowthrough hatcheries in our state.

If the Government determined that its policy position was that all flowthrough hatcheries should be transitioned into recirculating facilities in the next five years or so, then my decision-making would have regard to that policy position. It's very hard to pin down exactly what the relationship will or won't be because government sets policy all the time. This Government has made particular comments around directions in climate change. As the Government revisits its climate change approaches, the EPA board and other decision-makers will be asked to have regard to those decisions at the time.

Mr VALENTINE - Can I follow up on that example that you just gave? Say it was the other way around: that the Government had a policy position to allow flowthrough rather than recirculate for some reason. It is pie in the sky but say they did that. Say, you said, 'No, this is not going to be environmentally sustainable'. In the process that currently exists, is there a way the Government or indeed the board can override your determination in that?

Mr FORD - You could probably deal with that in two parts.

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If there is a position that says an activity is appropriate for Tasmania - whatever it is: we might just be talking about flowthrough hatcheries but it could be anything else - the environmental regulatory responsibility is then to determine how to make the best environmental regulations in the process. If we're going to continue to have flowthrough hatcheries, my question would be: what are the appropriate discharge limits in terms of levels of nutrients allowed to be released from that facility into the environment?

This is no different from a conversation that we would have with TasWater. For example, we all recognise the challenges that TasWater has in improving its wastewater treatment in Tasmania. We would all like to see tertiary wastewater treatment, yet we don't have it. What we seek to do in regulating TasWater is by looking at the discharge limits. Therefore, they have to invest in technology to be able to treat the water if they're discharging it.

In answer to your question, we will develop and design an appropriate set of environmental management controls to match a government policy position on any development - whether it be wind farms or sewage treatment plants or mines. Government will say, 'We'll continue to have the mining industry'. We will continue to work out how to regulate the mining industry. Using acceptable modern technology is a term that flows through these sorts of conversations.

The technology that the industry used when running hatcheries 30 years ago is not acceptable any more. The notion of moving those older hatcheries to a more acceptable technology to get a better environmental outcome is something I can still do in the absence of any position that says there will be no flowthrough hatcheries.

CHAIR - To be clear, there is still the matter of who sets the acceptable discharge level. You gave the example of TasWater and the salmon industry circumstances with the hatcheries. In both those circumstances, do you have discretion to set those levels or are they determined in some other external way?

Mr FORD - In the circumstances as they stand at the moment, yes, I set those levels. If you look more broadly at water quality, the EPA board can, through the state water quality policy, set water quality objectives. It has not. There is a whole history associated with that across successive governments and challenges.

The board has set water quality objectives for specific developments where it is deemed appropriate that in the development of a greenfields site water quality objectives are set.

CHAIR - An example of that would be?

Mr FORD - I would have to take that on notice. There have been a couple of TasWater ones, but I will take that on notice.

CHAIR - There is not an example you can provide that relates to the salmon industry or the board setting the water quality objectives rather than you, as director, which then informs the monitoring?

Mr FORD - Yes, but maybe not stated as being a water quality objective. If you look at the board's decision on Huon Aquaculture's Whale Point facility, there are some very clear, prescriptive requirements on discharge limits from that facility in terms of water treatment.

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If you look at the board's recent decision on the proposed Tassal hatchery at Hamilton, there are some very clear emission limits around the quality of the water suitable to be discharged from that premises.

In the Tassal case, the water is used for irrigation. In relation to Huon, principally, the water is used as part of their reuse scheme. They make that water available for the *Ronja Storm* or the *Ronja Huon* as part of their access to fresh water.

Yes, there are some examples. If you would like more detail, we can produce a document for you that lays out specifically where the board has looked at matters directly associated with this industry over the last couple of years around water quality. They all relate to land-based activities because water quality objectives in the marine environment are exceedingly difficult. You can spend hours on that conversation.

CHAIR - It would be useful to have that provided, thank you.

The water quality objectives are defined either by you or board either overtly or through other mechanisms. You monitor for that and where necessary, if the water quality objectives are not being met, you then put it back to the company, the proponent, whether it be TasWater or a salmon company, to adjust the way they operate in order to best meet the objectives.

Some of the determination around that must have been arriving at an acceptable environmental impact?

Mr FORD - Yes.

CHAIR - Is it your discretion to decide that?

Mr FORD - In the absence of a clear state policy or a national environmental protection measure, the answer is yes, either me or the board, depending on what we are dealing with. In all our assessments, the board will provide a range of prescriptive conditions. If you look at the mining industry, for example, in order for a mining industry to operate, they generally have to have a tailing storage facility. With a tailing storage facility, water is discharged from it. That water can be high in metals. It is not so much a nutrients issue, it is a metals and pH issue. The board will set limits based on best available science, appropriate technology and the understanding of a level of environmental risk. If you bring that back to a freshwater hatchery environment, a discharge limit for a hatchery operating on the Derwent River may reasonably be different to a discharge limit for something operating on a smaller flowthrough creek system. In an environmental sense we talk about an 'effective mixing zone'.

You come back to questions around things like TasWater in Macquarie Point. When water is discharged off Macquarie Point, there is a mixing zone. How far away from the end of the pipe can you find evidence of the discharge? That is your mixing zone. Whether we are talking about hypersaline water from well-boats, whether we are talking about discharges from plants, whether we are talking about the marine farm pens, you get a certain distance away from the emission point and you can't detect presence of whatever you are looking for - nitrogen, ammonia, metals, aluminium, zinc, lead, and so on.

CHAIR - What I'm asking you about is: in any of these circumstances, whether it is the mine tailings, Macquarie Point sewage, or a hatchery on a small river, a determination needs to be made

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about an acceptable environmental impact, because there will be one. Setting a limit to the discharge and monitoring and enforcing compliance around that limit is on the basis, as you have said, we are prepared to accept a level of environmental impact and we know what it is going to be. What are the criteria or mechanisms that are consistently applied to decide that? Is it at your discretion as the director of the EPA, or is it at the discretion of the EPA board or is there a consistent way it is assessed that can be, from an external point of view, understood, held accountable, tested?

Mr FORD - The consistency process sits within the best available sites, information that the board draws from a range of sources to look at the pollutant of concern. What is the water body it is going in to? How do you make a judgment about what is acceptable? In the absence of any clear guidelines, the board will err to a conservative position. In erring to a conservative position, the board will then require a greater level of technology than a proponent might be planning to build. It is a balance of experience. That is why the board looks at these things. That is why we employ professional people within EPA who can provide advice to the board. I can't produce a document that says, 'In every circumstance this is what is going to apply'.

CHAIR - The part I am interested in is that we are accepting there is going to be an environmental impact in each of these circumstances and it is someone's job to decide how much environmental impact is acceptable. The second part is the bit you are describing, which is then: what levels of this discharge or this particular material would come under that acceptable level. It is determining the acceptable level that I am particularly interested in, and the criteria or considerations that are somewhere specified and accountable that inform that decision - whether it is you as the director, or the board, the EPA, that you are held accountable to.

I guess let us just try to make it a real-life situation. If we were to pick a circumstance where it had been your determination, in relation to a hatchery, to find the acceptable environmental impact, and then set levels accordingly, how would I know and be able to review, or understand, or hold you accountable to that decision about the environmental impact that sits at the beginning of that process?

Mr FORD - We will go back to what you can identify about the particular environment.

CHAIR - I do not need you to talk me through how you go about it in this instance; I want to know if there is a mechanism that would require you to undertake that determination in a particular way that is accountable, that we could review?

Mr FORD - No.

CHAIR - Okay, thank you. That is the question.

Ms FORREST - I want to go back to the scorecard here, Mr Ford. I know it is a government document and not yours. I have just had a really quick skim through it, but I see it does copy and paste a lot of the information you are reporting to it, from what I can assess from that brief look. It is not a very long document, but in conclusion it says -

To ensure that current and future Tasmanian aquaculture practices remain sustainable the EPA is currently reviewing existing monitoring practices and developing a new environmental standard aligning with the best practice for Tasmania.

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That is what you talked about earlier, about developing this standard, but you still do not know whether it will be a regulation or some other process. How are you going to do this? I understand there is a great degree of work to put together those five documents, and you cannot even issue drafting instructions to the Office of Parliamentary Counsel until you get the tick from government, so what are you doing?

Mr FORD - I can tell you that in my view there will be a standard in place next year.

Ms FORREST - What will be the basis? Where was the authority under which you can impose that, if this regulatory process does not unfold?

Mr FORD - My view is that more than 90 per cent of the standard itself will be what we - either ourselves or the Government - would be seeking to implement through a regulatory regime. We are working on that component. Irrespective of whether it is a regulated standard implemented under the legislative system, or whether it is a board standard, my view is the prescriptions around how it will work will be largely the same. That is what we are working on. We are working on the detail of what the standard looks like, and once we have a clear position around whether it is going to be a regulated standard or not, we will be doing that work as well.

Ms FORREST - If it is not a regulatory standard - and, again, we need to talk to the Government about this - but if it is not, where is the legislative weight and transparency that someone can point to and say, 'There is the regulation and you have breached it', or as an industry player, 'This is the regulation we need to meet'? It is as though these codes of practice have no legislative weight.

Mr FORD - That is right, and it would not have. We are talking about something that will have legislative weight because it is a regulatory standard, or it will not because it will effectively be a policy of the board.

Ms FORREST - That clarifies that, thank you.

Mr FORD - The point is that, at the moment, it is actually documented.

Ms FORREST - Documented, but with no weight and no transparency.

Mr FORD - If you go to a document regularly used by industry, and regularly used by the board, the Quarry Code of Practice is one such document. It is available, it is accessible, people can read it. If you are going to build a quarry from scratch, you can go to the Quarry Code of Practice and say, 'When I apply to the EPA, I am going to have to meet these standards, because if I do not the EPA is not likely to give me an approval - and I can reasonably expect that when they do give me an approval, the approval is going to look like this.'

That is what we don't have.

Ms FORREST - If I live next door to the quarry, and I see them operating contrary to their approval, which is based on the code of practice, there is no legislative weight for you to act.

Mr FORD - The legislative weight comes back to the condition. There have been various iterations of the Quarry Code of Practice. If you take the hours of operation for a quarry, these will

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be in the permit condition. The Quarry Code of Practice will say the hours of operation should be between 7 a.m. and 6 p.m. That will be reflected in the permit.

If somebody is operating the quarry at 5 a.m., and that can be demonstrated, they are in breach of their permit.

Ms FORREST - You can withdraw their permit?

Mr FORD - The land use planning system of Tasmania does not allow the EPA to remove any permits.

Ms FORREST - So if I'm the neighbour who gets woken up at 5 a.m., what comfort do I have that I can contact the EPA, and the EPA can say, 'Yes that is a breach'. Then what?

Mr FORD - If someone breaches a permit, we can issue an infringement notice. We can prosecute. We can amend the permit to put additional requirements in it. We can lift the standard the permit operator has to operate against. We just can't cancel the permit, or remove the permit, because it is a land use permit.

One of the significant differences in relation to the salmon industry is that the salmon industry is subject to environmental licences, and environmental licences can be removed.

Mr VALENTINE - That is interesting. I have a question with regard to the sustainable industry growth plan, and this issue of maintaining public confidence is mentioned in the plan.

One statement in it is clearly identifying the areas of Tasmania's coastal waters where salmon will continue to be farmed, areas where further growth might be possible, subject always to careful and open planning and approval processes, and the areas where salmon will be excluded.

It goes on to talk about a commitment to future expansion, moving into oceanic, deeper and high-energy waters, rather than estuarine waters.

Are you going to be reassessing current salmon farming areas as to whether they should continue to operate in those areas, especially as they are possibly moving out to deeper water? I am interested in what we do with current operations that may not be - and I say 'may', because obviously it is all subject to testing - in a polluting sense, viable in terms of the environment to be operating there.

Do you have the power to turn around and say, 'Well, no, this is definitely not a reasonable place to be doing finfish farming, because of the low flushing effect and the filamentous algae and all those sorts of things that have developed'?

Do you have the power to actually say, 'No, that won't continue; as soon as you move out onto your oceanic site, they should be closed'?

Mr FORD - You have to look at the interaction between the Marine Farming Planning Act and the Environmental Management and Pollution Control Act, in terms of: is the role of the Marine Farming Planning Act - and therefore the Minister for Primary Industries and Water - to determine where marine farming occurs in the state? Having determined that, there is an environmental layer in terms of a management process.

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If I formed a view that a marine farm - we are talking of a marine space, very clearly - was not achieving appropriate environmental outcomes, and there was a recommendation to move it, that would be a matter that I would consider talking to Government about.

The starting point for me would be to look at the regulatory measures in place. If you take a view that it is not my job to decide where marine farming occurs - that is the Government's and the minister's. My job and the board's job is to ensure we can adequately manage the environmental impact within that area.

At my disposal I have a range of regulatory measures around imposing controls on biomass, on stocking density and on nitrogen that can constrain an operation.

If the question were not about the operation being there, but about the size of the operation in the context of the environmental [impact?], you could come to the question of Macquarie Harbour. We could spend a whole day dealing with Macquarie Harbour. My view in relation to Macquarie Harbour at the time I reduced the biomass was that the biomass needed to be reduced.

It is not for me to make a decision whether Macquarie Harbour is the right place to undertake marine farming for salmon or not; it is my job to ensure that while marine farming is occurring in Macquarie Harbour, it is occurring in a manner with an acceptable environmental impact.

Mr VALENTINE - Isn't that where the public is showing that they are lacking or starting to lack confidence in the process and in the Environmental Protection Authority? That is what it is about, environmental protection, not about environmental protection as far as the Government's policy goes.

Is the structure right? As you said, you can remove a licence or you can cancel a licence, so shouldn't you be able to be able to cancel a licence like that instead of doing it the way you are describing?

Mr FORD - I would respond by saying, 'Why is the salmon industry different to the mining industry, or the wastewater industry, or to any other industry in Tasmania?' In terms of environmental management, as a state we need a whole range of industries and those industries may have an environmental footprint.

The role of the EPA is to work out, on balance, how to ensure those industries can perform in a manner where their environmental impact does not cause significant long-term harm to the Tasmanian environment. That is subjective and we clearly have examples of some of the challenges in the state and historic legacy issues that have nothing to do with the salmon industry that we end up having to regulate.

The legislation in Tasmania, in my view, does not set the EPA up to be the entity that closes down businesses and says a business should not exist in Tasmania.

CHAIR - It comes back to the question I was asking before, which is that while you don't decide where salmon farming occurs or does not occur, you do decide what is the acceptable level of environmental impact from this industry.

Mr FORD - Yes.

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CHAIR - Then you would grant licences on the basis of that and set monitoring requirements and levels of discharge and all sorts of things from that pivot decision of what is the acceptable. What you indicated to me before is that is entirely a discretionary decision. There is not an accountable mechanism, criteria or structure that can be seen to guide that decision.

Naturally you would have things that guide that decision so I am not doubting there are clear things you would be using, but externally and accountably, that does not exist. Therefore, if your determination was such that the level of environmental impact was significantly above an acceptable level, you could effectively shut down that operation by removing the environmental licence of, say, the salmon industry?

It is not that you are in the business of shutting down industry. You have the capacity to, based on the determination you make about acceptable environmental impact.

Mr FORD - In nearly five years in this role, I have issued one environmental protection notice on a company to shut them down because what they were doing was deemed to be completely unacceptable.

Ms FORREST - A finfish farm or another industry?

Mr FORD - Not a finfish farm. You are right, when something is unacceptable, the EPA can step in and say this activity has to cease. We have the power to effectively cease an activity. We can't remove the permit but I can effectively condition a permit to make it uneconomic for a business to operate.

Mr VALENTINE - You can remove an environmental licence, didn't you say?

Mr FORD - I can remove an environmental licence. One of the challenges is the significant legal complexity in drafting that legislation. The Government, in drafting that legislation, had to bring two completely different planning concepts in two separate pieces of the legislation into the one legislation and to work out where they cross and intersect. In the case of the marine environmental licence, because a marine farming licence can be cancelled, it would always be a nonsense argument to say that you could go to court and cancel the marine farming licence, but you could never cancel the environmental licence. You have to look at the marine activities by saying that the environmental licence will always work in partnership with the marine farming licence because that is the legislative system the Government has established. You can't have a mechanism where one can be cancelled and the other couldn't.

Mr VALENTINE - To finish my line of questioning, you mentioned going overseas. Did you take time to look at how they operate and where their equivalent EPAs sit in relation to other mechanisms in their systems?

Mr FORD - We had something like 17 or 18 meetings in 16 days across four countries. One of the reasons we went to Scotland is that in Scotland they have a model where the Scottish EPA manages the environmental side of salmon. Their equivalent fisheries department manages the leases and licences. We went there to look at how a country manages with two significantly different regulatory entities. It is an important opportunity to note that as a result of the meetings Lloyd and I had, when we had the Blue Future symposium at the end of December 2017, we brought a number of the people we had met with in those countries. We had people from the Faroe Islands,

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we had people from Scotland, to share their experiences, which they had shared with Lloyd and I, with everyone who was in the room at the time.

Mr VALENTINE - Were there any particular aspects you thought could make our system better if we were to introduce them?

Mr FORD - Yes, there are a range of them. The review highlights where we could do things a little differently. It is important to note there is a range of things that Tasmania is doing better than other places in the world. The concept of world's best practice - no one country can say they are the world's best.

Mr VALENTINE - I always say it is better practice, not best practice. You never know what someone else is doing.

Mr FORD - I agree with you. It might be world class. It might be equivalent to what others are doing.

Mr VALENTINE - Thank you.

Ms FORREST - On the legislative framework, you talked about how you can revoke an environmental licence or a marine licence. That has some benefits. In Macquarie Harbour, we saw what happened there. Potentially you could have acted to revoke a licence. You chose to reduce the biomass and take other actions. In a regulatory framework, do you envisage that the regulations would still grant that power to remove a licence where significant breaches have occurred? We know that regulations often impose penalties of a variety. You are going to be the one issuing the drafting instructions. This is always a battle for us because regulations come after. The parliament doesn't get to see them until after they are made.

Mr FORD - I don't envisage that those powers would sit in regulations because they already sit in the legislation. The powers to cancel are a fairly onerous powers imposed and dealt with by a court. They are not dealt arbitrarily by a director saying, 'Let's go and cancel a licence'.

Ms FORREST - Can you explain the process around that then? How does that happen?

Mr FORD - Can I take that question on notice? I could sit here and read the contents and go through the act now, but it might be better to provide you with a summary of the clauses in the act around how cancellation of licences work. I am happy to provide that on notice.

Ms FORREST - Okay.

CHAIR - Is there a comparative example from another industry where you have the same power, and could show how those processes look alongside each other?

Mr FORD - The EPA has not had power to cancel permits. An EPA example is actually not an example, but clearly there are other examples within other regulatory systems where licences have been cancelled for activity that's gone well beyond what's deemed to be acceptable.

CHAIR - You were answering Rob's question just before. You seemed to say that that the environmental licence and the marine farming development plan was somehow inextricably linked

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so removing one would necessarily mean the removal of the other. Could you please explain that a little more fully? I don't understand why they would be.

Mr FORD - They are linked from the point of view that in order to conduct a marine farming operation you need, setting aside the myriad other secondary-type approvals, three primary approvals: you need a marine farm lease under the Marine Farm Planning Act; you need a marine farming licence under the Living Marine Resources Management Act; and you need an environmental licence under EMCA.

If you were to lose any one of those through legal proceedings, the remaining ones would effectively have no effect because you can't use them. You need a mechanism that then says, 'If a marine farming licence is cancelled, the environmental licence must be cancelled and vice versa. Or if the if the minister of the day, the minister responsible for the lease, were to cancel a lease, the licences have no value. So they are linked together - you can't have one without the other.

We have some examples where there are marine farming leases that are not licenced - there's a small number of them. They can't be used.

There are a very small number of examples where there will be a marine farm lease and a marine farm licence but no environmental licence has been issued. They can't be used for the purposes of farming. Until those licences are applied for and granted, they can't be used for farming.

Ms FORREST - Environmental licence?

Mr FORD - Yes. If there is no environmental licence, a marine farmer can't undertake any marine farming.

If you take a situation such as what is occurring in Storm Bay right now: Tassal has applied for four leases, as I understand. I think they currently have four marine farming licences but they would only have one environmental licence, so they can only physically use one of those leases at this time. They're going through the process of applying for the other environmental licences but they can't fully utilise their development in Storm Bay until all environmental licences are granted.

Ms FORREST - In terms of the farms that Tassal own, or the leases they have in Stingray Bay and in the Long Bay area that were used for a period, then sat dormant for a number of years and then reactivated, I assume they were reactivated through the issuing of an environmental licence. How did that happen? There's been a lot of concern from residents in that area that there was no public consultation or open process to enable those leases to be reopened and operate some years beyond the time they had when one would expect that environmental conditions may have changed.

Mr FORD - Let's go back to the Marine Farm Planning Act. The leases as they operate in that framework have no requirements within that process to reassess an activity from a point of view of its suitability for marine farming.

Ms FORREST - Once a lease has been granted, it is basically there forever. Is that what you are saying?

Mr FORD - Once a lease is granted, it is there for the term of that lease. Leases have rights to be renewed as well. The lease can be there for a long time.

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Tassal had operated that activity in the Long Bay area. It was not active for a number of years and then they reactivated it, which was clearly different to the circumstances in relation to Spring Bay and Tassal in Oakhampton Bay.

Ms FORREST - I just want to focus on that one at the moment where they reactivated it.

Mr FORD - There was no requirement in the marine farming legislation to have that reassessed. When the environmental changes were made, a provision was inserted in the legislation that says that if a lease has not been used for 10 years, it is then subject to reassessment from the board's point of view. The board will reassess the environmental appropriateness of a lease area that has not been used for 10 years. In that case it was not 10 years, so the board's process did not kick in.

CHAIR - Can I just clarify? Did they have an environmental licence during the initial time it was being used which then was reactivated when they began using it again after a period of time?

Mr FORD - No, because no-one had environmental licences. They had a marine farming licence with environmental conditions on it. The environmental licences did not start being rolled out until after March 2018. Most environmental licences under EMCA are less than two years old.

CHAIR - This is one of the ones you have inherited. It still comes under your responsibility. You have not formed it as a new environmental licence; you have inherited the conditions from the previous arrangements when it was under the department. They form what we would regard as their environmental licence now. It is the same as it would have been in the first iteration of activity down there across the blank period to this next iteration. I am trying to make sure I am very clear that that is what has happened.

Mr FORD - My recollection is that we did make some changes to that licence. I will take that on notice. I can't tell you off the top of my head whether we have said we inherited the marine farming licence and that the licence was granted in its initial form.

CHAIR - Would it have been you as director or the EPA board that would have done that?

Mr FORD - It would have been me as director.

Ms FORREST - You are now looking at whether that legislative framework becomes a regulatory process. From your perspective, as the director responsible for making sure that the environment is protected and standards are set at a level that you determine to be an appropriate environmental impact, do you see significant changes needing to be made in the way this process occurs?

I can understand why people in the community might think this is a very non-transparent process. There is no way for them to understand whether there is even any process for setting environmental conditions or standards. How do you see this new process you are now developing changing in order to give people confidence that marine leases that already exist that may not be in operation at the moment that may be brought into operation in coming years as part of this expansion that we are looking at?

Mr FORD - For me, the key point is that having an environmental standard removes the day-to-day discretion that the director may have. It codifies some of the things we have been talking

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about. What are some of the acceptable levels of impact that start to then get codified in the standard. If a future director seeks to use discretion to vary from that, quite clearly they will have to justify why they are doing something that is different to the standard.

Ms FORREST - We can expect a statement of reasons or something in the regulations if that should be the case?

CHAIR - To be clear, when the standard comes into play, will you be grandfathering it and applying it to all existing arrangements, which are now quite old, the ones you have developed since you had that power given to you? Will the standard only be applied to new ones from that point on or back to those other ones that already exist?

Mr FORD - My view is it has to deal with both. It has to be able to deal with everything new but also as acceptable modern technology changes and capacity changes with more information we should then work out how to move to a new standard that is more appropriate.

CHAIR - What would be the mechanism that would be the imperative to review and look at the existing arrangements to assess them against the standard and bring them towards that? It is not flicking the switch, it is a process. What is the imperative there? What mechanism would come into play?

Mr FORD - It would have to be looked at case by case in relation to the existing level of impact. We have a significant amount of history from a compliance point of view of all the leases. All the history was transferred to us so we have leases in the Huon and Channel area that have consistently performed well for 20 years. If you don't change anything, you would reasonably expect they will continue to perform in that manner.

We also have leases in the Huon and Channel that have been a bit problematic over the years and there has been an approach to change things around those leases. You would start looking at some of those leases and asking what is the current practice on that lease and how do you change that practice over what sort of time frame to move to a new standard.

CHAIR - That is a good description of how it might come about, but I am asking where is the power to make that come about? Are you anticipating that will be in the regulations? When the standard is introduced will there be something that says these previous arrangements must be reviewed? They might be reviewed to ensure they meet the standard, they might be reviewed and then changed. Will there be something in the regulations that makes that happen.

Mr FORD - That is not something I am going to pre-empt. There are already powers within the legislation that allow me to vary a licence at my discretion. If I believe there is a problem or inadequacy within a particular licence I have the power today to vary that licence.

The power exists in the act. In writing regulations you generally defer back to powers in act. Good parliamentary practice would be to not significantly increase your powers. We all get potentially challenged from time to time that the notion that a regulation actually exceeds the head of power. If there is a view that the powers and the act need to be tightened up, that is a matter the Government would also need to consider.

CHAIR - I am mindful of running out of time. We haven't covered a lot of material and we may need to have another chat with you. One more thing specific to this matter relates to the fact

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that in the EMPC regulations, clause 8 indicates that a referral for an environmental licence application should be made to the EPA board under certain criteria. There are criteria there under when that should happen. Rather than be dealt with by you as director, it would go to the board. One of those criteria is that there is likely to be very high levels of public interest in the application.

Mr FORD - Yes.

CHAIR - Can you give me an example of when that criteria might have triggered a referral to the board to consider an application for an environmental licence?

Mr FORD - To take those words in context, those words also appear in Schedule 5 of EMPCA in relation to activities that are designated as Class 2C activities under EMPCA.

It is very hard to pin that down. If you took some extreme examples, the pulp mill debate was something that has a high level of public interest. In my near five years in the role, I could not identify a development that would have a high level of public interest.

CHAIR - Do you have a way that you define 'high level of public interest'?

Mr FORD - No.

CHAIR - And you are not given a set of criteria or considerations? Presumably then, when you granted environmental licences as director to the Storm Bay arrangements in recent times, that was done because you deemed that there was not likely to be a sufficiently high level of public interest?

Mr FORD - Yes. There is another clause, which is 'the director must not'. You have to weigh those two up. You have a 'must' versus a 'must not'.

CHAIR - What is the 'must not'?

Mr FORD - The regulations say that the director must not refer it to the board if it has been dealt with by the marine farm planning process within the last two years.

CHAIR - If the approval comes through the marine farm planning process.

Mr FORD - In the last two years.

Ms FORREST - Which will soon run out.

Mr FORD - Yes.

Ms FORREST - So this is the grandfathering aspect of it?

Mr FORD - No.

CHAIR - No, the marine farm planning process is the current process we have, which is the first process that happens in terms of designating that area being available for marine farming.

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Mr FORD - To come back to what I believe was the Government's intent in making the amendments they did: there are a number of steps in the marine farm planning process. If you look at particularly at section 74 of the EMPCA, which talks about the environmental assessment process, one of the elements in that is public participation and the opportunity to be heard.

The marine farm planning process provides an opportunity for representations and for hearings and then ultimately the minister makes a decision about the appropriateness of marine farming in that space.

It also goes on to determine, in terms of the way the planning process works, that the director can have input into what environmental shape the planning process looks like at the very start.

CHAIR - You can help shape the environmental impact statement criteria?

Mr FORD - The Government's intent is, after being through a public process that allows people to put representation, to then have hearings, resulting in a minister making a decision; it is not then a matter for the board to redo that whole process within the next two years.

CHAIR - Even though what you are considering, in terms of the granting of an environmental licence, is quite a separate process to what was being considered for the marine farming planning approval process?

Mr FORD - Which is why I believe the Government wrote the regulations the way it did, so that the initial granting of the environmental licence post an extensive marine farm planning process is that they then flow from the decision to grant the leases or to go through the planning process.

CHAIR - What we have is a marine farm development planning process which has no third-party review and no merits appeal processes for the general public. They can participate in certain elements of it but there is no merits appeal. If an application is made for an environmental licence with a two-year period, that licence does not go to the EPA board; in fact, it must not.

Mr FORD - Yes.

CHAIR - That is the only way there could be a third-party review appeal in that process.

Mr FORD - Yes.

CHAIR - The public, or any other stakeholders, is given absolutely no third-party appeal right at all, simply based on that time frame?

Mr FORD - Industry has appeal rights.

CHAIR - Come back to public then.

Mr FORD - One of the challenges the Government clearly had in designing the legislation that came to parliament was that you one piece of legislation is the Marine Farm Planning Act that provides no third-party appeal rights and the land use planning approval's process that does provide third-party appeal rights. If you bring the two together, you have to determine where the line exists.

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The Government has determined the line exists the way it does to put a planning process in that allows for planning that will then result in the grant of a licence. It then separates and says post that planning process, matters can be dealt with by the board. If we have a planning area that was planned five years ago but no licence has been granted, then I can refer that to the board.

CHAIR - You have a discretion to do that according to these criteria?

Mr FORD - I have a discretion. If you look at the rest of the criteria in the regulations, there are also some mandatory requirements where matters must be referred to the board. An increase of more than 10 per cent of nitrogen or biomass in a cumulative sense must also go to the board. If we were to have a conversation about increasing the biomass in Macquarie Harbour from 9500 tonnes to 12 000 tonnes, I contend that would be a matter that would have to go through the board or the board's assessment process. You can put a position forward saying there is now, because of industry exposure to significant third-party appeal rights, which didn't exist prior to this legislation coming in two years ago.

CHAIR - There are significant ones that don't -

Mr FORD - At the end of the day it is a matter for the Government.

CHAIR - Indeed, it is not a determination for you. I appreciate that they are not questions that you can take responsibility for.

Mr VALENTINE - I need to clarify. You said earlier that industry does have appeal rights. It's not the case. It is the applicant who has appeal rights. I don't think other players in the industry can appeal against an applicant's -

Mr FORD - I apologise if I was misleading. It is always the applicant, the proponent, the person who is directly affected; that is, the second party.

Mr VALENTINE - That's all right. I just wanted to clarify that was the case.

CHAIR - We are over time. We very much appreciate your time today. It has been very enlightening. There will be a need to have a further conversation. I know there is substantial material we haven't covered yet. Thank you for your time today.

Mr FORD - Thank you for the opportunity to be heard. I am more than happy to come back and deal with the other seven-eighths of what we haven't dealt with.

I offer an invitation to the panel to come to our offices so we could take you through a presentation of all our video footage. Our current file is around three terabytes in size and unfortunately it's not something we could easily establish in here. The video files are all very large. In terms of your understanding of environmental management and how we do day-to-day decision-making, taking you through for a couple of hours and showing you, warts and all, what we see under the pens at compliance points, we can show you some of what was really happening in Macquarie Harbour on the sea floor in 2014-15. I know this process is going to take a few more months to conclude but if you are able look -

CHAIR - Thank you. That is a good invitation. We will certainly take you up on it.

PUBLIC

Mr FORD - At that stage or at another stage, we can step through specifically how we deal with compliance.

CHAIR - They are matters we probably want to have here for the hearing but coming to see some of that material will help inform us when we have a discussion with you on the record.

Mr FORD - We can work out how you could record a briefing for *Hansard* that we give you around video so you have a record of it. Then we can have a discussion about how we might be able to give you some segments of some video that might be useable. When we have literally thousands and thousands of videos, doing anything with it that the public can access is challenging.

CHAIR - Thank you.

THE WITNESS WITHDREW

PUBLIC

Ms JO-ANNE McCREA, FISHERIES AND SEAFOOD MANAGER, WWF, WAS CALLED, MADE THE STATUTORY DECLARATION AND WAS EXAMINED.

CHAIR - Welcome. Thank you very much for your time today. This is a public hearing of Government Administration Committee A Subcommittee Inquiry into Finfish Farming in Tasmania. While we are in this hearing we are protected by parliamentary privilege but once you step outside the hearing that may not apply. I want you to be mindful of that. There is an information for witnesses sheet, if you have not already had a chance to see it. We are being recorded and *Hansard* will be available via the website. We are being broadcast today.

You will have an opportunity to provide some opening remarks if you would like in relation to your submission and then we would have a series of questions for you. If there is anything that you believe needs to be heard in camera we are able to consider that request if you make it when you believe it is relevant.

Would you like to make an opening statement?

Ms McCREA - Yes please.

Firstly, thank you to you and the committee for having me here, but more importantly for having this inquiry and seeking answers to the very important questions that you have posed.

Sustainable food production is a global challenge. It is nothing unique to Tasmania in seafood, unfortunately. All food production has an impact. We are not naïve or seeking miracles about that. The challenge globally is to find a way to produce food in a sustainable way but still allows economic viability and also importantly protects social values. This is the work globally of the World Wildlife Fund and certainly the work of the Sustainable Seafood Program at WWF, which I lead. Our goal in Australia is to increase the amount of sustainable seafood that is produced and consumed in Australia.

Salmon is as big part of our program. There are three really important reasons why that is the case. The first is that it is the largest seafood sector in Australia by far and away. It is also unique in that, unlike most other high-quality seafood products, salmon is eaten in Australia so it is an incredibly important product for Australian consumers.

The second reason is that this industry occurs in what is the unique marine environment of Tasmania. This is one of the world's most biologically diverse areas of marine environment. Eighty to 90 per cent of the species here are endemic, which means they are unique to Tasmania. Of that environment only 1.1 per cent is formally protected in sanctuary or no-take zones.

The third reason is that salmon farming, by its nature, means that when done poorly it can have quite severe environmental, social and economic impacts.

For the benefit of the environment and the people who depend on it, we have identified a range of improvements we think are necessary. In keeping with the WWF's science-based and solutions-based approach, we have tried not only to raise the issues, but also to think about solutions going forward.

I have submitted quite a dense submission, but I will try to characterise the intent of what we are proposing going forward.

PUBLIC

The first is a holistic, science-based, multi-sector marine plan shared by the whole of Tasmania, and is integrated across the terrestrial realm as well.

A transparent, science-based, regulatory regime that spans across planning, leasing and licensing.

A move from a more uncertain, adaptive management system to agreed performance targets, limits, and pre-agreed management and operational monitoring, and the research actions that follow.

A meaningful and relevant form of transparency around industry operations and the release of environmental data.

And, finally, greatly improved inclusiveness in terms of the access that the community and the conservation sector, as well as other groups, have to the management of the salmon sector.

Currently, often the community and the conservation sector are disregarded or considered not so legitimate in the management of this sector. In fact, the marine environment is a common property used by many, valued by all, but owned by none.

Where commercial entities are operating and taking value from the marine environment, it is the legitimate role of the community and conservation sectors to stand up for the environment and those community values. Where there is no opportunity to do that, those values are not protected.

What we hope is that this range of improvements can be implemented. We are supportive of a sustainable salmon industry, and we hope that through these kinds of improvements, the industry can earn the support and the trust of its community, other industries and also consumers, both in Australia and abroad. Thank you.

CHAIR - Thank you for that statement. That is a good start.

I would like to start by having you tell us a bit more, in detail, about what a shared marine plan would involve, and can you point to other jurisdictions that we could look at, to see what that might look like in reality?

Ms McCREA - A range of jurisdictions are heading down this road in various forms. There is some work in northern America around Canada, and Asia, and there are lots of examples of different tools being used.

I think the right way to go is to work out how to do that right for the Tasmanian environment. I can run through a series of steps that would be common to any process.

The first is data collection. In order to understand exactly what values need to be protected, and what assets need to be protected, those need to be mapped - habitat mapping, environmental mapping, where important species are, that is really the first step.

The next step is mapping the users, and the other values of the environment. That's where people recreate, where salmon farms currently are, where boating happens, where tourism is important et cetera.

PUBLIC

The third step is to start bringing in technology and modelling tools. Those are readily available. People are doing this around the world, using technologies to look at overlapping data sets to be able to get a sense of how to integrate various users.

What is really important in this process - what allows us to make decisions - is having a really open discussion across the community and across industries about what success looks like. You can't crank a computer model to do just anything. You have to come up with, as a community and across shared users of that resource, what success looks like.

Again, that is possible, and people are doing that around the world.

From that, you can come up with a range of scenarios that can then be really deeply consulted with across industries and communities. What do we want for various areas around Tasmania's coastline and marine areas?

Underlying all of that process is data. Clear data. Understanding where the gaps are. Being willing to collect the data if it doesn't exist, and consultation - deep consultation, so it's not just a scientific process, but is also significantly a social science process as well.

CHAIR - To clarify, that process you are envisaging, and what you would see as the outcome you are looking for - the shared marine plan - do you imagine that this is a whole-of-state plan, or is it something that is done region by region? While I'm asking that, I'm thinking of the fact that IMAS has told us it has this spatial planning tool in development that it is piloting relating to approvals of salmon farming areas. For example, does that area-specific mechanism function in the same way, or is there a difference in this?

Ms McCREA - Great question. It could; it depends on how broad you want to go first. The value of doing a whole-of-state process means that you can consider where the industry will grow around the state, because there will need to be decisions, I imagine, around where salmon will grow and where it won't. That gives you an idea of where to optimise salmon and a bunch of other industries around the coastline. That's one broader level.

What I understand - and apologies because I haven't been involved in the pilot IMAS process - is that it took an area that was already agreed to be a salmon-growing area, and then did this process to work out where, within it, that would occur. To me, that's a more granular level of planning, rather than answering the question: should salmon be here at all, or to what level?

Ms FORREST - I'm not sure how much of the evidence you were here for when the director of the EPA was presenting previously, but there a couple of questions I would like to follow up with you. I understand that your organisation certifies some salmon farming operations around the world, and I know the Chair did ask you about other models that may be examples of this shared marine plan. If there are any that we could actually have a look at, it would be good for you to talk about those. I imagine they're ones that you have looked at in depth.

If you could address those in response to this question about the EPA director, who was talking about development of standards. They have done the work looking at standards around the world and that sort of thing, and now the EPA has been tasked with that process. He talked about engagement with stakeholders in the process of developing those standards before they are put out as a formal consultation document.

PUBLIC

Have you been invited to participate in that, in view of the role you have played in actually certifying and looking at some of these industry players?

Ms McCREA - I think you are talking about the Aquaculture Stewardship Council certification process?

Ms FORREST - Yes, I am.

Ms McCREA - To clarify, we don't do the certification. The WWF was part of the founding organisations that created the Aquaculture Stewardship Council, which is now very much an independent body to us, but we have recommended that Aquaculture Stewardship Council certification be sought, because it is a way of guiding farmers on how to produce sustainably, and also educating consumers on how to purchase sustainably. There are a bunch of spin-off conversations that could happen around that.

To your question around our involvement in the standard, I'm aware that is the case. I have asked a number of times to be involved in that and a number of other regulatory policy development processes around the state, and have been told that we would be given access to a draft at public comment stage.

Ms FORREST - You will be, did you say?

Ms McCREA - Yes. We know it is happening, and I have expressed significant interest and advised that I would invest my time in that to assist - but no, we have not been invited to be part of that process.

Ms FORREST - At this stage.

Ms McCREA - At this stage.

Ms FORREST - There is still a process to come, according to the director.

Ms McCREA - Yes.

CHAIR - Broadly, I'm wondering what your reflections are on the sustainable industry growth plan that we have from Government, which has been reviewed after 12 months and is due to be reviewed again this year, I believe.

That growth plan lays out an industry aspiration: a target to grow to a \$2 billion industry by 2030. The Government has firmly endorsed that target in the growth plan. Do you have a view on it, knowing that this is an industry, as you said, that is important for food production worldwide and it is an important industry in this state? Does your organisation have a view on that growth target?

Ms McCREA - We don't have any information to suggest how that target was determined. I guess it's for industry to determine what its aspirations for growth are. I have no reason to understand why government chose to support that target.

PUBLIC

If we go back to the planning process I envisage, I would not imagine you could truly come up with a sustainable growth limit until you had gone through that exercise and identified, first, where a good place for salmon is and then conducted the necessary environmental surveys to understand what the carrying capacity of those areas could be. One question is: should you put salmon there? The second is how much salmon can you put there every year. From there you could probably start to identify what that looks like, ideally adding aspirations of offshore growth. That is where we would very much like to see growth happen, as opposed to coastal areas. And consider what additional growth may be possible through further on-growing in a land-based scenario.

Without having previously gone through that process before, I was concerned from some of the recent panel hearings to understand that Storm Bay was apparently factored into it, whereas the growth plan was clearly approved [for?] Storm Bay before the panel was approved.

CHAIR - I believe Storm Bay would be regarded as offshore by many. Other people find that definition problematic for that area. Does your organisation have a view on the appropriateness of that description in that area?

Ms McCREA - Yes. We have looked at trying to find out exactly what offshore means. It is not black and white. I will have to talk somewhat cautiously about that, but certainly most people consider offshore to be areas outside the eyesight and hearing of coastal communities. The infrastructure involved is really significant. It is designed to endure high-level wave activities et cetera. and then require a whole different way of working how to feed and maintain and operationalise those activities. We wouldn't regard Storm Bay as offshore.

Ms FORREST - You have directly referenced a lot of terms of reference, which is really helpful to the committee. In Reference 1a, regarding data, you have made a comment about the data portal. You have suggested that -

an advisory group be developed to guide the review of the data portal to ensure that information displayed is readily understood, digestible and relevant...

and it goes on slightly further than that.

We have had evidence to the committee that the decision that the Government was to develop this data portal. It was initially going to sit with IMAS but now it is with DPIPWE. The main area of concern raised with the committee is the lack of consistency of data and different measures for the same thing so members of the public can't compare easily. Do you want to further elaborate on how you see that data portal working and what should be there?

Ms McCREA - There is a range of data fits we could easily list. They include the biomass that is on the site, escapes, environmental monitoring data, disease issues through to things like compliance, of which there is some there. I will go into some more depth on that, more outside the ecological issues. I hear that the public would like to have some more operational issues on when cages are pulled and so on, so they can understand when to expect interaction of boating activities.

Ms FORREST - Are you are talking about a proactive release of information? So, it is advertised in advance when an operator intends to move a pen from one part to another? I understand there are benefits from that, but wouldn't it require people who live in the area to be checking the portal every day? Is that the only way?

PUBLIC

Ms McCREA - I guess so. Apologies. That's not really my area of expertise. The point I am making is that it would be great to have one portal to serve the cross-industry service of communicating information about the industry with those who are interested in it, whether it is environmental or operational.

Ms FORREST - It is the activity as well as the environmental monitoring that you believe should be there?

Ms McCREA - Sure. We, of course, we are more interested in the environmental issues.

I could see that there has been a recent development of portals. I looked at that. I guess I am concerned that my suggestion in my submission, which I also put to the Government when the growth plan was released and also in the draft growth plan that was put out, was the idea of a reference group that could sit alongside government and industry in developing this. The whole aim of the data portal was to give the people the information they wanted.

It is very important that the first step is to talk to those people and ask how they need that data, in what form is it relevant, in what form is it digestible. I think we have ended up with a portal that has some things in it but really those questions have not been answered. For instance, a yes or no is not a reasonable piece of data because it does not allow us to track trends over time. It does not allow us to compare whether there were five infringement notes or two and how that compared to last year. It does not allow us to compare if there were five seals injured or caught compared to two of last year and what the circumstances were.

Ms FORREST - It takes time to collect that data. We are talking about longitudinal data. Are you are talking about longitudinal data, where people can look back and what happened in the past? Historical data?

Ms McCREA - Yes. All the data that is there, as well as the yes/no, could immediately be replaced in this period of time for a number. Metrics are important.

Mr FINCH - Jo-anne, the submission by WWF was very comprehensive - 69 pages. Is this work that you carried out in Tasmania? Are you based in Tasmania?

Ms McCREA - No, I am based in New South Wales. I have worked with the industry since 2012. WWF has worked with the industry since about 2010. I come to Tasmania regularly. It is not unusual. Seafood is globally traded so the work that we do working with partners across Australia means that we work with people across the whole of Australia and then across the world.

Mr FINCH - Thank you. Could you please expand on your comment on adaptive management for us?

Ms McCREA - Sure. I think what we have at the moment is a series of mechanisms that may be put in place at some particular time, but there is no structure for when they might be used or how or no imperative to.

What I see as the way forward is to respect the fact that we do not always know how the environment is going to behave, but trust the fact that we do know what the possible things that will happen are. We already have a wealth of knowledge on what to do in the event of something. In its simplest form, if this happens, we already pre-agreed that that will happen.

PUBLIC

I will give you an example in the wild capture fisheries sector, which is another area that I work a lot. If you think that aquaculture is an uncertain environment, wild capture fisheries are even more so. We deal with this on a daily basis. Think about the captures of snapper; we know that you cannot catch more than 60 per cent of the virgin biomass without causing a depletion of the stock. So, there is our pre-agreed limit. Management arrangements already exist. Decisions have already been made. If we go below that, the quota will be reduced, or we will up the monitoring, or we will do more compliance checks to work out if somebody is over-catching.

Those agreements are all made well ahead of time, with the benefit of knowledge and science, even though we don't know when we are going to go below that limit but we know when we get to that point, this is what we are going to do. That takes the angst out of the situation, where all those responses have already been developed before you are in a situation of crisis, where time may be limited and also people's ability to engage, negotiate and come up with agreement is naturally really challenged.

I see no reason why that framework can't be applied to Tasmania. Take Macquarie Harbour as an example. A biomass limit gets set. We have a really clear system on what the compliance checks on those are. It might look something like, if some of the points start to look dodgy, monitoring goes up in the first instance. If then we get a higher level, fallowing is required immediately, not operationally conveniently, but immediately. If things get further advanced, the biomass needs to be reduced by this immediately.

With that knowledge, although that may sound harsh to industry, they can then make decisions on their own risk of causing that level of noncompliance about monitoring. 'I might put more fish in there but I have to remember that if I do this, this is the answer, this is what is going to be applied to me'. That is publicly available. The public can see the decisions that have to be made and they can see the monitoring data. That would increase the trust that the community has in the industry significantly and take any doubt away around inappropriate discretion or decision-making around the government.

Mr FINCH - That alternative management decision you are talking about that might apply, what would the stakeholders, that group, look like? What should that group contain to give you the best management decisions going forward?

Ms McCREA - Again, I am going to use a wild-caught fishery because it has been really successful. A typical management advisory group in that kind of sector would look like the industry. Some licensees, people who are operationally involved in the activity, other really significantly affected operators. Tourism is a significant sector in the area we are talking about, recreational fishers, community, definitely the science and conservation sector.

In a fishery sense, we often have indigenous people as well. That group advises the management authority, whoever that is - the people who have the legislative power to effect the change. In that circumstance, that committee would be responsible for setting up that mechanism. Once you have the machine working, it works for itself. The key is to get the machine working well and then you don't have potentially ad hoc decisions that people may always ask questions about: Why? How did that happen? Why did something else not happen?

Mr FINCH - Would you think that stakeholder group would be a regional group? Would you have different regional groups for the different areas of development of the salmon industry?

PUBLIC

Ms McCREA - That would make sense to me, yes.

Mr VALENTINE - Following from that, how do you see government policy being dealt into that scenario you have painted? Quite clearly, those players you have talked about in relation to wild-capture fisheries might have all the ideas in the world about what they would like to see, then along comes government and says they are only going to apply policy to this area or that area. How do you actually see the elected members having their say in that process?

Ms McCREA - That is a good question. It is important that there is a clearly stated mission or vision statement for the salmon industry and then everything follows below that.

Mr VALENTINE - I was only using wild-caught fish.

Ms McCREA - Let me give you an example in the Commonwealth wild-caught sector. There is a ministerial statement that says that fish stocks cannot be below 60 per cent. These things are called harvest strategy, so there is a harvest strategy policy in place. That harvest strategy policy needs to be applied to every fishery.

To give you an example of the stakeholders' involvement, WWF are part of the panel that developed the harvest strategy policy. That is a good reflection of the recognition and legitimacy of conservation sectors and the range of other sectors in developing those kinds of policies that now mean there is a high level of trust in those industries.

We are quite happy to be involved in building the machine and that can be applied to various fisheries that come under the remit of the Commonwealth fisheries minister.

Mr VALENTINE - With respect to your submission, you have 22 different areas that you touch on in different ways and some recommendations under each of these. I know you have had involvement in the industry in the past, but how much discussion have you had with the industry here or elsewhere as far as aquaculture is concerned in relation to setting some of these things? Is there an acceptance that some of these things are valid or not?

Can you paint me a picture, perhaps, of interaction with government as well? I just want to get an understanding of whether these are just things that the WWF wants to see go forward or are some of them owned by industry and also government.

Ms McCREA - Many issues in there have been raised with the industry and the Government quite a number of times, not exhaustively.

Mr VALENTINE - Directly by you ringing ministers' officers and things like that, or is it indirectly?

Ms McCREA - Yes, specific issues around the growth plan and wanting that to be a multi-sector process, highly consultative, how that might go forward - we raised all those things in our submission to the draft growth plan, as well as issues around data portal and the tender process. Anything specific to the growth plan was raised with the Government during the growth plan development.

PUBLIC

Post that I have had personal hearings with the EPA and DPIPW leads, reiterating the advice around marine spatial planning, in particular the map and the process, the data portal and being willing to be involved in the development of that, being willing to be involved in the Macquarie Harbor management plan. Then I understood a standard was being developed which wasn't in the original plan. I only found out about that because of the one-year review.

Again, I reiterated my strong interest at being involved in that and the history that we have in certifications and standard setting and was happy to invest that in their process. I was initially invited to be on the pilot project for the marine planning which I thought was a breath of fresh air and a real highlight. Then I was uninvited and told I was not going to be part of it before the first meeting.

Mr VALENTINE - Any reasons given?

Ms McCREA - The reasons given to me were that there was angst among the different stakeholder sectors that were part of it. There was concern that would be aired in the presence of the conservation sector. The most successes that we have had in marine resource planning, not just in the wild-caught sector but also across aquaculture and a range of other processes has been where government has had the foresight to put all the relevant stakeholders in a room together and respect that we are professional and mature enough to have really healthy and frank conversations. For most part we have come up with really good outcomes. At least when they are not, it is transparent and we know exactly what the position is. People are respectfully committed to the process which allows people to sometimes accept the outcome, even if it is not what they wanted.

I spent a large amount of time sitting in front of people asking them to allow me to be part of the marine pilot project, expressing my willingness to be objective and that this was a really positive step by the Government. I really wanted the outcomes of that to be released in a way that was a positive step forward, and to be able to say that the conservation sector was part of that, and to hopefully be guided by an organisation that has a lot of depth of experience in this, and, quite frankly, a lot of credibility. You can understand I spent a lot of time trying to convince them, but the answer was no.

Mr VALENTINE - With industry directly, apart from being in those forums, have you had discussions?

Ms McCREA - A lot of the issues raised there were part of the conversations about the partnership we had with Tassal. Issues around the growth plan, and wanting to legitimately help the industry seek new sites that were environmentally sustainable, and also had very strong support of the community, were key parts of our conversation.

In past jurisdictions I have been involved in, still in aquaculture management, I have personally experienced plans for large development growth that have been done poorly, and have resulted in what could have been sustainable aquaculture initiatives not going forward, and they will probably not go forward for decades, because once you are able to mount something as a big hairy monster, it is hard to make people dismiss that monster. If you go in badly to start with, it is hard to go back and get a good result next time, even if the next time you are doing it well. I have tried to encourage people not to do that.

Mr FINCH - On the back of that line of questioning, I know the World Wildlife Fund has been working in Chile for about the past 10 years with industry representatives, investors, government

PUBLIC

officials and also local community advocates and conservationists to draw them together. You talked in your overview about inclusiveness for community and conservationists. Are there lessons we can take from Chile that could be applied here, or that the WWF might recommend for Tasmania?

Ms McCREA - The different industries are sometimes doing better, and sometimes doing worse, depending on what the issue is. Chile's range of issues is probably quite different. They have had big disease issues, fish health issues. There is a lot of work we have been doing, and even the local CSIRO people have been doing a lot of work there as well.

With my insights around Chile in particular, when the issues around Macquarie Harbour happened, a lot of people, including globally, said Macquarie Harbour is unique. It is not just about salmon farming; this is about this unique waterway. In Chile and other parts of the world, we are seeing the exact same developments go forward. There is a more global opportunity outside this to significantly learn, and globally, people are listening. I have had lots of conversations with people in Chile about what happened in Macquarie Harbour, to make sure that globally people are learning from that experience. I hope that in the development of other areas of Tasmania those lessons are well heard as well.

Mr FINCH - Where would we see an example of where those elements are brought together, to produce what looks like a more successful operation?

Ms McCREA - Some of the areas that are doing better - and, as I said, I don't think there is one jurisdiction you can pick up and pull in - New Zealand has some sound mechanisms, as do Scotland and Canada. I would avoid going down the path of trying to pick up one particular regulatory regime and put it in a different jurisdiction, rather than look at the various elements or various outcomes that are trying to be achieved here, and then look to see what can be borrowed from other jurisdictions.

Ms FORREST - One point raised by other witnesses is their concern regarding the lack of full independence of the EPA. There have been suggestions that it should be an independent statutory body, much like our Auditor-General. I know there is a process going on at the moment with the development of the standards the EPA has been tasked with, which we have talked about.

Do you have a view around that? I am trying to hear from a range of different people as to what they think about that. Can it, and is it, working as it is, or does a change need to be made to that, too?

Ms McCREA - I guess my concerns, or the areas of improvement, around the EPA process are more around the guidance and the criteria by which the EPA makes its decisions - the criteria which should be met in order to be able to issue a licence.

I did hear the end of the conversation around the board making an approval, versus the director making an approval, and the ability for appeals. To me, it would seem an unusual situation, given the current state of salmon farming in Tasmania, that the issuing of an environmental licence would not be one that has high public interest.

How to measure that is really important, as well. There needs to be, across the planning and the licensing system, criteria that need to be met so there can be judgments or measures made about the extent to which those have been met.

PUBLIC

Ms FORREST - This is one of the things the director said - that there was no actual definition of high public interest. It may be that you are in a community where there is significant unemployment, there are a whole lot of other social issues going on within that community, that would really benefit from an industry coming in that has land-based activities as well as sea-based activities.

Do you think there needs to be a clear definition around what significant public interest is, and what do you think that would look like?

Ms McCREA - The answer is yes, I do. I don't think I could come up with what that looks like. I think it is a great example of where, although on one hand we need much more biological evidence and data in some of these processes, the social science is really lacking. It is a completely different feel to work out what questions you ask when you try to measure high public interest.

I would leave that to some expert advice from social scientists, of which there are many, including in Tasmania.

Ms FORREST - And determining a measure, and at what point that kicks in. Maybe when a standard is developed, that may change the way that is going to occur.

Ms McCREA - Sure.

Ms FORREST - Coming back to your submission, under the heading of 'Overarching issues: need for the review of the environmental regulatory framework'. This is going on from the point I was making.

You said the WWF believes the Tasmanian Government should be undertaking a similar comprehensive review of the state's regulatory frameworks governing aquaculture and marine conservation, rather than the piecemeal improvements laid out in the EMPCA, which is to be debated at a later time.

From what the EPA director was saying, there is this much larger body of work. In making that comment, was that acknowledging that work, or is that just looking at what is on the table in terms of legislation at the moment? I am not sure, because I think it may be two different things we are talking about here.

Ms McCREA - Sure. I wasn't referring to the standard in that. My point was that the act is now about 25 years old. In order to create some of these effects and make these changes, the bill is obviously quite substantial. A really large range of small changes have been made.

The point I was making was that it seems timely, as in some of the other jurisdictions, to really take a step back and look at the environmental act as a whole, and ask if it is achieving what it set out to achieve.

One of the key inputs for that is probably that State of the Environment Report, which is long overdue to be completed as well.

Ms FORREST - The other comment you made related to the Marine Farming Planning Review Panel processes. You set it out pretty clearly in your submission, so I don't need to repeat it all.

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Is there anything you wanted to add to that? It has been raised by a number of people. The resignation of two scientists from the committee recently raised a number of concerns. There is a lot there. Do you want to add anything? It is potentially a legislative change - it's under how the legislation works.

Ms McCREA - I'll just underline the importance of the panel in terms of where it currently sits. It's for that reason that the flaws in the system at the moment are so significant. Maybe it's there, but I'm not able to determine the depth and breadth of the expertise of the person currently appointed around the marine environment criteria -

Ms FORREST - The committee has asked for more information about the members of the panel.

Ms McCREA - - which is worrying given that the panel recently approved an over 50 per cent increase in the state's salmon production. Even if the whole panel was present in making that decision, a lot is riding on the credentials of that person who, for me, would be representing the kind of interests that the conservation sector represents.

I'm not able to determine whether that person has the breadth and depth of experience to assess and advise on large-scale aquaculture operations. They are quite different from us marine biologists. We're quite diverse in our areas of expertise. Somebody's expertise in marine environment may or may not be relevant or enough to make decisions about this -

Ms FORREST - Particularly now in medicine you have specialities within specialities; some surgeons only do certain things even though they're surgeons. So, to have a person on the panel who fits the criteria set out in the act, by the very nature of the way things seem to be at the moment, a particular person's experience could be limited to one area or one aspect of the qualifications they're meeting.

Is there a perfect system? Or do you just have to do the best you can?

Ms McCREA - I think their credentials should at least be transparent so that anybody can judge whether they're sufficient or not.

Ms FORREST - Rather than their names and their relevant qualification, details of the areas that they specialise in? Is that what you're asking?

Ms McCREA -Yes, that's right.

Ms FORREST - We're hoping to get that in the current panel.

CHAIR - I have two broad questions. I am interested in the concept of a social licence. It's a fairly intangible thing. It's very hard to say whether we have one or we don't. How will we know when we are sufficiently down the track to say, 'Yes, we have a social licence for this industry in this state'?

Ms McCREA - That's a great question to which no-one really has the answer. Everyone's grappling with that. We need a series of questions that we can track over time. That's the best we can do at the moment. Social licence is not really about whether people buy salmon or not. This is

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my thinking. We deal with what consumers think and don't think, which is quite different to what the community thinks. In this context, at the moment, it's still about the Tasmanian communities that have the salmon farms operating along their coastlines. I imagine that there's a series of questions that could be developed with the help of social scientists to track that over time.

CHAIR - I am very much aware that through some of the polling and the surveys that we've done that it's not as simple as it might seem. There are pockets of communities around the Tasmanian coastline that are more concerned, and either more or less concerned and also more or less vocal. Realistically, you are not going to please everybody and, realistically, a social licence is when nobody is complaining about anything.

Ms McCREA - That's right.

CHAIR - It is something back from that. Are you aware of other jurisdictions that might effectively and meaningfully measure their social licence? Then we could contemplate how it is done in relation to this jurisdiction?

Ms McCREA - I can take question that on notice. I think the wild-caught sector is a little different in that, for the most part, the issue is not that the broader public don't like them but they just don't care; they're kind of invisible. Everyone is facing different challenges in terms of their social licence.

CHAIR - I will leave that one with you.

I believe that both the Government in Tasmania and the industry themselves would claim that is an industry which is sustainable. They would use that descriptor and feel confident in using it. What would be the comment from WWF around that descriptor of the industry here at present?

Ms McCREA - Firstly, you have to define what is sustainable. In the salmon industry, like most aquaculture industries or even fishing generally, there is a range of criteria that need to be satisfied in order to do that. It is okay to say our salmon industry is sustainable as long as you can talk to all the major areas. There are issues like the feed that goes in, the impacts on the benthic environment, the water quality, how well they are managing escapes, disease, et cetera. Overall, if you can meet all of those requirements or show that you are legitimately and transparently tracking the areas where there still needs to be some improvement, then a word like 'sustainability' is possible. But I think you have to have those key elements of evidence and transparency inclusiveness.

CHAIR - Is an independent certification process, then, the primary way that we would know whether we are meeting those measures?

Ms McCREA - The Aquaculture Stewardship Council plays a really significant role. We have in the past said that operations that meet the ASC certification are sustainable. In saying that I want to point out that that does not mean that they're perfect. We saw that in Macquarie Harbour where we had ASC-certified sites that had severe damage underneath their sea cages.

We have started a process that is happening right now, which is looking at how that was possible. Without wanting to pre-empt the outcomes, it suggests to me that there are some improvements that need to happen within the ASC certification, either in process or criteria, to fix

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it. That is just what you expect of a continuous improvement process of a standard that was produced, I think, in 2013. It is relatively new. We will make recommendations from that process.

It is really important to recognise that these ASC-certification processes also look to the local and national regulatory regimes. That is also an area of evolved thinking for us from what we might have said a few years ago, that it was enough to now being clear about the fact that we can't just leave that up to the ASC standard and say that as long as it's meeting local and national laws and policies it's okay. We're now seeing very clear examples of where those local and national laws have not been able to uphold the environmental standards.

CHAIR - Is it your understanding that our industry here in this state is meeting that certification standard, those measures, and therefore is accurate in describing itself as a sustainable industry?

Ms McCREA - There are some sites that are ASC certified. A few years ago, there were many sites that were ASC certified. All three of the companies had ASC-certified sites. Two of them had 100 per cent of their sites that were Aquaculture Stewardship Council certified. That has now dropped back for a number of reasons. That means there are a number of sites where we do not have the transparency we once had. One of the really strong merits of the ASC certification process is that it is entirely transparent.

There is a very dense report produced which has to assess the farm's ability to meet all of the criteria. That is made publicly available. There are stakeholder meetings. Anybody is allowed to voice their views on whether they think the draft audit report is correct or not. They all have to be considered and reported on how the auditors dealt with those comments and how they took them into consideration with the development of the final audit decision.

When we have farms where we can't see that, and we are only starting to see some data coming through the portal, there are big question marks. Without being able to understand what is happening on those sites and their level of compliance, we are not in a position to be able to say whether they are sustainable or not.

CHAIR - Our local industry stepped back from that certification process and is not choosing to participate in it to the same degree. Is that why we have fewer of the sites certified now?

Ms McCREA - Yes. Some have chosen to adopt an alternative certification scheme, which is one that we don't endorse or recommend. Some will be not certified at all, I imagine. It is not something we have line of sight or access to all of that information at the moment.

CHAIR - To put it on the record, you do not endorse those other certification schemes because?

Ms McCREA - The other certification scheme that is becoming more visible in Tasmania is what they call Best Agriculture Practices. Although the criteria are quite similar between ASC and BAP, the processes I described about transparency and inclusiveness do not exist in the BAP process.

The other major difference in the criteria in the ASC and the BAP processes is the ASC is quite outcome-based and metrics-based so you can see really clearly whether you meet it or not, whereas the BAP standard might say, for instance, that you have to have a plan, which is sufficient to address x-problem. Then you are relying on the expertise of the auditor to make that conclusion and to have

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enough information and data to support that decision. Those reports are not public. Nobody can see them. We cannot see them.

We can see the criteria on which they are judged. An auditor has to make an independent decision but nobody can peer review that and assert whether they have made the right decision or not. That is why we do not support the BAP program.

Mr FINCH - Something to clarify, please Jo-anne. You have had a working relationship over a long period of time with Tassal. Could you apprise us now of your working relationship with Huon and Petuna and your ongoing relationship with Tassal?

Ms McCREA - We had the partnership with Tassal from 2012. That partnership was specifically around meeting the ASC standard. The primary core objective of that was for them to meet the ASC standard across all of their sites by 2015. By the end of 2014 they had done that. We felt that was success.

Past that, all the major retailers in Australia then started to demand Aquaculture Stewardship Council-certified salmon. We were starting to tap into the market mechanisms that demand sustainable production. We saw Petuna and Huon also start to pursue ASC. At one point Petuna was 100 per cent ASC for all its trout and salmon.

We continued on that relationship with Tassal for a number of years and ultimately ended it at the end of 2018. The reason we did that was we felt at that point the issues we were tackling around marine conservation in Tasmania had become industry-wide. It is important to say that the reason we work with companies is to find an organisation that has leadership and aspirational targets, and try to help them prove that something is possible and hope that others will follow. We worked with Tassal to encourage them to become ASC-certified and hoped that others in the region would follow. We worked with Coles for a long time, educating and helping them on sustainable sourcing in the hope that others will follow. Now we are working with Woolworths.

We did have conversations with Huon over that period of time. Not me, but I understand someone of our corporate partnerships people had conversations with Huon at a key point in history around potentially working on a relationship with them. This wasn't within my remit but I understand that the decision was made that Huon was already tracking towards ASC, so there was no real conservation imperative for us. It was more of a communications exercise. For us a partnership is about conservation impact. It has been raised lots of times - yes, we get paid for the work that we do because we don't expect the people who donate to WWF to help wallabies and koalas to pay for the environmental management of Australia's largest seafood industries. They are expected to pay that out of their bottom line. The core imperative is conservation impact. We go through a significant process which often takes several years to determine whether we are going partner with someone, to really make sure we have a significant alignment about what the conservation impact it and what values we share about going forward.

Hence in 2018 we decided that a corporate partnership was not the right process to go forward in terms of working with the Tasmanian salmon industry. We are now funding that completely by ourselves and have been since the end of 2018.

CHAIR - Thank you. We are going to have to wrap up there.

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Mr VALENTINE - I have a very quick question about your submission. Under 'Marine Farming Review Panel Processes', you talk about a quorum. The current marine farming review panel's standard procedure is to require a quorum to make decisions. It is in there that five members makes a quorum but one would expect that three can decide. Do you have a comment on that?

Ms McCREA - My comment would be the same that I remarked on earlier around the power of this panel. If that would mean that three panel members could decide to increase the salmon biomass farmed in Tasmania by over 50 per cent, I think it is cause for concern.

Mr VALENTINE - Sorry, I missed that.

CHAIR - Thank you very much for your time today. We appreciate it and found it helpful - your submission and the questions today.

THE WITNESS WITHDREW.

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Ms LAURA KELLY, ENVIRONMENT TASMANIA, WAS CALLED, MADE THE STATUTORY DECLARATION AND WAS EXAMINED.

CHAIR - Welcome. This is the public hearings of the Government Administration A subcommittee inquiry into finfish farming in Tasmania. It is protected by parliamentary privilege but when you step outside the room your comments out there will not necessarily be protected in the same way. So be mindful of that, please. There is information for witnesses that has been sent to you but provided there if you need to refer to it. The hearing is being recorded. It will be available on *Hansard* on the website for the committee. We are also being broadcast today.

The way it is going to work is, I am going to ask you to make a statutory declaration, you will then have an opportunity to make some opening comments if you wish to do so. We will have a series of questions for you based on your submission and others. If there is material that you believe needs to be covered in camera you can make request and we will consider the request at that time.

Would you like to make an opening statement?

Ms KELLY - I will make a brief one. I think there are significant, simple and practical improvements that can be made to governance and regulatory processes for the salmon industry in Tasmania.

I have worked on this campaign probably for about four years and I have had the opportunity to meet with all of the leadership of Tasmanian salmon companies. I have found them to be really good to meet with: experts in their field, big technical expertise, and passionate about what they do. I think their role as directors who are responsible to shareholders means that they are always going to compete hard and go as hard as they can and do the best they can in the parameters that they are given.

I think it is the role of government to determine what an acceptable impact of that operation is on public waterways. That is always going to be a subjective call and needs to reflect a democratic process of consultation. I think that is where things have fallen down in Tasmania - governance. It has always been our prime concern since we launched our campaign. I started with Environment Tasmania forensically going through each marine farm development plan by region. What really struck me was that none were alike. It was like comparing apples with oranges. From the very beginning it was like a hodgepodge approach to planning.

There was no establish criteria which needed to be addressed in each marine farm development plan. I think anyone with any level of knowledge in the sector, from industry to academics to NGOs, could probably tell you some of the key components that need to be considered when determining a region's suitability for finfish farming. We have included some of them in our submission. They should be clearly written out and addressed in the same format with the same input via the same process for each marine farm development plan.

The plans were so different. I believe in the North Bruny plan there was a note from DPIPWWE acknowledging that the plan was written by Nortas at the time, which was an industry operator that was then acquired by Tassal. There wasn't even a clear role for government in acquiring data to establish an area's suitability for finfish farming.

That's a mission within the planning system that could easily be addressed, perhaps not from a political perspective but at least from a policy and regulatory perspective. Political solutions are

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more complex. Maybe I can speak to those later if you have an interest. I think as policy makers the solutions are very available. Proper bio-regional planning would serve all stakeholders, so bio-regional planning that considers not just an area's suitability for finfish farming but also natural values, heritage values and cultural values.

I had worked with Environment Tasmania on the Tasmanian Forest Agreement, which had a detailed map of natural values, heritage values and wood supply volumes for the whole state. That didn't exist for the ocean in Tassie. If it did exist there was silence between departments and that information hadn't been gathered and assessed by a cross-disciplinary committee at a state-wide level. That is a crucial piece of work that needs to be done. It is work that Environment Tasmania is really passionate about contributing to.

Meg was asking WWF before how you measure social licence. It's a complex thing. I think you can measure outputs, as Jo mentioned, through social science process, but having inputs correct is crucial. Those inputs are solid planning processes, transparent monitoring and reporting. If we'd had bio-regional planning it would have prevented the level of conflict we see around salmon farming at the moment between certain stakeholders and the community, including some in the environmental movement and the salmon industry.

Conflict is not just between very small groups of people but larger groups of people. For instance, polling on Okehampton Bay was almost 50/50 split. That level of conflict shows there isn't a social licence. Proper planning of where salmon goes - where is protected for its natural value that's precious to Tasmanians, where is protected for recreational fishers, where is protected for traditional owners - may have prevented some of that conflict. Therefore, awarded greater social licence to industry to operate.

I won't go through too much detail of my submission. I imagine you will ask questions. A lot of it is relatively repetitive in some sense because we are really keen to focus on governance, transparency and policy. There are a couple of areas where we talk about where we think the existing regulations are somewhat lax and we would like them to be tightened. We tabled two papers as supporting evidence for our statement in relation to that. One of them is disclosure of antibiotic use by industry in hatcheries and the marine environment. Huon Aquaculture recently disclosed their hatchery and marine use, but we do not have full disclosure of antibiotic use from either Tassal or Petuna.

One of the co-authors of the paper that I gave you is Professor Peter Collignon. He works at Canberra Hospital and the ANU Medical School, and was part of setting up the World Health Organization committee on the use of antibiotics in animal farming. It basically says why there is a public health interest in ensuring that antibiotic use in public areas such as waterways and river systems is important, because even small amounts can create the risk of antibiotic-resistant gene transfer. Part of the reason I tabled his work is that I don't want to speak to the science of antibiotic-resistant gene transfer, which is why we take advice from experts in that area. That's not my field of expertise.

The other piece of evidence we tabled related to hatchery testing by one of the industry hatcheries that showed significant pollution downstream from the hatchery. The reason I tabled that evidence, which was gathered by an independent specialist water scientist, is that it shows not just an omission in regulations, but an omission of regulations being implemented. Because of the Aquaculture Stewardship Council reports, and because they are transparent, we know that there were problems with pollution downstream from the hatchery for at least three and a half years, and

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the EPA did not take action to see that addressed. What you have tabled is the result of that water quality testing, which shows significant pollution, including *E. coli*.

The other thing our supporters are passionate about is the impact of farming directly under the pens. Our current regulations determine impacts on benthic flora and fauna at 35 metre compliance points, but not directly under the sea cages. Some would be okay with that. I think when the industry was a boutique industry and it was quite small, a lot of people might have been okay for heavy impacts under pens. Now that the industry has spread and is the largest fishery in Australia, that allowable impact needs to be reviewed, and we need to determine what level of impact on benthic flora and fauna we think is acceptable.

We also note there are varying levels of impact around the state, depending on wave energy, infection, high-flow sites such as Storm Bay versus a lower-flow site in, say, the Huon River.

I might leave it there and pass over to questions. Thank you.

CHAIR - I will start off by asking you, so we have a context for the comments you are making in the submission, to talk briefly about Environment Tasmania, particularly your membership and your funding. You talked about this being a campaign. Could you please mention what that means in your context, what the aims of that campaign are, and what is involved in it, in a summary way?

Ms KELLY - I will start with the aim of the campaign and then discuss the organisation.

The aim of the campaign is to tighten regulation within the salmon industry in Tasmania, to lift towards best practice. If you want a clearer detail of how Environment Tasmania defines that, I can table it, and perhaps I should have tabled it, but I can direct you to, out of session, a rating of salmon company practice we have recently published. It includes benchmarks for each key sustainability and environmental criteria, and the supporting academic literature we considered to reach those benchmarks.

CHAIR - You didn't include that in your submission, did you?

Ms KELLY - No, because I don't think we had written it or released it publicly at the time. It hadn't been completed or reviewed by some of the scientists we had look at it.

CHAIR - We might access that separately.

Ms KELLY - Yes. I must say it will be up for contention, because it is always subjective how you create a benchmark, but what we did was be very transparent in how we defined our benchmarks and the literature we used to support them.

Part of our broader goal in improving governance and regulation around salmon is to reach that endpoint of good bio-regional planning for the state, which includes increased protection for our natural marine values in Tasmania.

We have about 11 member groups at the moment. We were founded around forests, essentially, in Tasmania and are the peak group for small local environment groups in Tasmania. We were a signatory to the Tasmanian Forest Agreement, and expanded our focus to oceans around the super trawler campaign, because the corporate owners of the super trawler were based in Tasmania, and

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we campaigned successfully to stop two super trawlers from fishing in Australian waters. We extended our focus to salmon about four years ago.

We probably have about 60 000 individual supporters -

CHAIR - Within the state, or altogether?

Ms KELLY - Altogether. I do not have the percentage within the state, but I can do a segment in the database and find that for you, if that is useful.

CHAIR - I think it is.

Ms KELLY - We have charity status. In terms of funding, we have a split between larger individual donors, trusts and foundations, and crowd funding, one-off gifts and donations. We have one business supporter now, Patagonia. We get grants from their '1% For The Planet' grant. I can also table their social responsibility statement and the grant details, which are up to \$20 000.

Mr FINCH - In your submission there were a lot of suggestions to government, to industry and to stakeholders about the ways forward that might improve our circumstances. Could you tell us about your relationship with the companies, or how Environment Tasmania progresses these ideas with respect to the three major companies involved, and the government? What steps have you taken to date?

Ms KELLY - It is a good question. We have met with all the company heads a couple of times. We have met more frequently with Huon Aquaculture because they had a more robust community engagement process, and they were also more active around whistleblowing on issues in Macquarie Harbour. We had more of their time learning about what they thought were the issues in that harbour, and we are supportive of the court action they took, and learned quite a lot through that process.

We have done a lot of consultation with the companies to learn. It is important, when you are pushing for change, to try to learn the operational constraints of the people you are working with, so that has informed our position. We have had a couple of consults with DIPIPWE and Mr Wes Ford as well to try to understand governance constraints, and that has informed our input into regulatory advice.

Mr FINCH - How did you feel about those contacts? Did it give you some positivity about the role Environment Tasmania might have in the development of a new future, or a different future for the salmon industry?

Ms KELLY - It did initially, because I think some of the governance and regulatory omissions are really obvious, and I felt they could probably be addressed relatively quickly. At the time, they were hurting parts of industry as well, because they were allowing competitors to farm a biomass in a shared waterway that impacted other corporate interests and had biosecurity implications. There was room for improvement, and there have been some small improvements. There was a tonnage reduction in Macquarie Harbour, and they have stopped the process of seal relocation, for instance. Community pressure did lead to Tassal not expanding into the Mercury Passage, and containing their expansion to Okehampton Bay.

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So I was quite hopeful there were basic and simple things that could be done to improve regulations. Industry operators had an incentive to improve governance, because governance failures were making their job difficult, and potentially threatening their industry brand, and I think it did lead to some improvement.

Environment Tasmania has taken a more aggressive response now, because we were disappointed to see that progress seemed to stop. What concerned us was that we thought there was a lot of progress around dealing with the issues in Macquarie Harbour, but then the Storm Bay expansion followed exactly the same process that was followed in Macquarie Harbour. That disappointed us, because we thought potentially what the EPA was saying was, 'Yes, we got the science wrong; yes, we made some mistakes; yes, we had some problems with governance'.

We had industry leaders standing up and saying that publicly as well. Then the governance issues were replicated to the extent that we had some expert whistleblowers needing to step off panels, which is really difficult personally for them in a small state, and could really damage their career interests.

We are really disappointed to see that governance has not been addressed, which means that we feel, in the absence of that leadership at a political level, we have little choice but to talk to consumers to try to get them to pressure supermarkets to try to produce those regulatory outcomes through an alternate mechanism.

Mr FINCH - Of the suggestions you have made, and there are many suggestions there - and I suppose according to you, good suggestions - what looms largest, or larger if there are multiple ones, in your mind about the way forward and what the outcome from this inquiry might be? What is pressing for Environment Tasmania at the moment?

Ms KELLY - The planning process. Government needs to produce consistent data that demonstrates an area's suitability for finfish farming, not only for expansion areas but for existing areas. That is crucial. There needs to be a stakeholder engagement process in informing that data because there is a trust deficit in the Government's ability to do that.

There are available experts who can inform that process. Really simple. This is what you need to do. You need to prove there are oxygen levels at this level, there is wave energy at this level. It is simple. Industry knows it and experts know it, but for some reason it is not included in marine farm development plans. That is crucial.

The monitoring standards need to be made more specific. Continuous improvement has not worked. It is completely rubbery. You need to actually state water quality standards that demonstrate sustainable operation. Data needs to be independently gathered to demonstrate compliance with those standards and that data then needs to be publicly released. It is really simple and it can be done.

Ms FORREST - I will follow on from that and then go to a couple of other areas, thanks, Laura. You are probably aware that the EPA has been tasked with looking at setting some standards for the industry across the board. Has Environment Tasmania been involved, or are you likely to be involved as a key stakeholder in that?

Ms KELLY - We have not been involved, no. It was interesting to speak to a couple of other stakeholders about the DPIPWE submission yesterday. There is a community perception that an

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approval is made prior to the approval process within government, in government's mind, like with Storm Bay. There is no point in engaging because it is just going to happen. That is what damages social licence.

We have not been engaged, no. Even though we are quite a loud stakeholder and quite heavily engaged and are quite reasonable in that. Not everyone would agree with the standards that we ask for - that is the prerogative of an industry operator, a recreational fisher or an average punter - but we are very transparent in asking for them. We represent a certain base in asking for them and we are clear in stating our interests. It would not be difficult to engage us.

Ms FORREST - The EPA director told us that there was going to be a process where key stakeholders would be consulted on a draft. We are still not clear which process it is going to take, whether it is a regulatory process or not, and there would be other processes within that. Maybe that is something that ET could seek to engage in.

Ms KELLY - Yes. We have made submissions to EPA consultation processes before, but never once has any point ever been picked up. It seems like it is window dressing. We have never actually had a substantial engagement where there was any interest in considering any of the points we make, the evidence base we speak from, or the membership base we speak for.

Ms FORREST - This comes back to a point you made earlier that you assessed all the marine farm development plans and found they were all different. The standard that has been developed, as I understand it, and it has not been done yet so I am speculating from what the director has said, is a standard for the whole industry.

Ms KELLY - Yes.

Ms FORREST - You observe from the marine farming development plans that they are all different. I put it to you that Macquarie Harbour is a very different body of water to Storm Bay, which is very different from the Huon River, which is very different from the Tamar River, which is very different from the north-west tip of Tasmania, which is very different from offshore King Island, and you can keep going around. The fact that they were different, is that necessarily a concern? I would like you to address that. If there is a standard, do you believe a standard can be prepared that can actually address all these quite different bodies of water?

Ms KELLY - I think so. The fact that they are different is the reason why you need to have a very clear set of criteria you gather to establish an area's suitability because they are all going to have different hydrology, et cetera. Experts can tell you there are, regardless of the differences in each waterway, certain conditions that you need to have met for the industry to thrive there. An environmentalist will tell you there are certain values that you wouldn't want to see put at risk, for instance, Okehampton Bay as an endangered whale calving habitat. I believe there are a set of clear questions that you could ask that would actually throw light upon the differences in each waterway and empower people to assess the suitability of that waterway based on criteria for industry, recreational fishing, culture and heritage, and natural values.

Ms FORREST - Does ET believe that finfish farming can be carried out sustainably even with expansion?

Ms KELLY - It's a good question. Yes, if certain criteria are met. It's a difficult question. I would need to have that mapping in front of me to determine where the possible expansion points

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were, what their natural, cultural and heritage values were. We are in process of trying to gather that data but because we are quite a small - our total finance for last year was something like \$250 000 for the whole organisation - that mapping process, a portion of it alone would cost our whole operating budget. It is so important that that data isn't just produced by one company or even government. That it is produced through an independent process. Until we see that data, I feel like we are not making an evidence-based conclusion, because we haven't got the science in front of us yet.

Ms FORREST - Who put together that mapping data? I am familiar with what it looked like. It was quite extensive. Who put that together?

Ms KELLY - Environment Tasmania engaged a mapper who is incredibly skilled and gave us an incredibly cheap price for his work. He should never have taken the wage that we gave him.

Our negotiations with industry were based on that data, because we were able to sit down and go okay, this place has good wood, and you want that wood, but it is also absolutely crucial, from an environmental perspective, for these reasons. This is going to be a conflict zone, so let's shelve that for negotiations. Whereas this area is low hanging fruit. Awesome for logging, because it has the wood you want but it doesn't have the conservation values that we desperately need to protect.

That said, that mapping informed our position. It then went through an independent verification process which was run by the federal government. They engaged a list of experts in every field that you would need to address, from cultural to industry to natural. They verified each piece of data that was submitted by industry or non-government organisations, and tried to provide an umpire-style approach. There was then consultation upon and that then informed maps that government, industry, trade unions and NGOs sat down and discussed, which then made the final agreement.

Ms FORREST - Obviously the marine environment is a bit less solid than the land-based activity that forestry is. Do you believe a similar body of work can be done?

Ms KELLY - Yes. I believe it can, but I think that the independence and the scientific rigour behind that work, and the level of transparency and concentration involved, gosh, it needs to be done well, because it will be heated. There will be points of conflict, as there always are, and points of agreement. It is so important that it is done well.

Mr VALENTINE - Thanks very much, Laura, for the submission. It provides questions for other parties as much as anything else. In reading through it, I didn't see a specific reference to where the minister fits in in terms of decision-making. Do you want to comment on that aspect?

Ms KELLY - The reason I didn't include it is because the submission was already relatively lengthy and we provided that comment when the EDO put the new finfish regulation through. It was completely ignored then and I think I had a bit of fatigue. I did not want to repeat every submission we have already made.

Mr VALENTINE - That is all right. I was going through it and I thought there is no mention.

Ms KELLY - Just agreed with the EDO's position on it: that at the moment too much power rests with the minister. The marine farm review panel can make recommendations to the minister, but it's the minister's decision whether to approve.

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Mr VALENTINE - It is the same as the EDO.

Ms KELLY - Very similar to the EDO's position. They are very good on the legals.

Mr VALENTINE - I just wanted to clarify what your position was.

Recommendation 4 - All marine farm development plans that specific lease approvals and amendments should require the collation and transparent release of independently produced scientific data. Where do you see that task sitting to get that data and fund it as well?

Ms KELLY - It has to sit within government and be publicly funded, a bit like the independent verification process for the TFA, which, if government had run it in the first place, may have prevented the conflict that resulted from its production. They are publicly owned waterways that government is regulating, so it absolutely needed to fit within government.

Mr VALENTINE - Do you see industry contributing money towards it, or do you say that shouldn't happen?

Ms KELLY - I think industry should contribute money through the levy they pay. I think the Australia Institute speaks to that issue better than I could. I do not think industry should contribute directly to the mapping process. They may wish to as it would serve their interests as well but it is so important that that is perceived to be independent. Other than through regular taxes and levies, I do not think there should be a direct contribution. It has to be government. The fact that government has not done that is quite baffling. I don't know what body of evidence they use to assess any application because they don't have a body of evidence.

Mr VALENTINE - Recommendation 3 says - The biosecurity regulations require industry to publicly disclose antibiotic use, mass fish kills and escape incidents. Are they the only aspects that need to be looked at or have you looked at others in the past?

Ms KELLY - They were the impacts that we considered from the environmental perspective based on Professor Collignon's advice and some of the other literature in the field. That's where it overlapped with the environmental interest. In terms of biosecurity, I don't think we would go further than that in provision of advice. I think there are people who could speak better to that.

CHAIR - I am interested to have your comment on whether the data portal that now exists, originally intended to be hosted by an independent entity like IMAS but now within DPIPWE's website, has your organisation had an opportunity to review that? Do you have reflections on its utility in terms of your perspective and the things you advocate?

Ms KELLY - I think it's a really great idea. It came about as part of - I think it was a public engagement officer from Huon Aquaculture's suggestion. We were engaging with industry about the ratings project document that I needed to table, the benchmarks for those ratings and what data would determine a company's rating.

There was concern that there was no third-party source of data. There was just what the companies put up on their websites. That made companies nervous because, 'We are not going to be rated by any NGO when we do not know what our competitors are giving you'. Then it was recommended that an independent third party release the data and review it prior to release. We were very happy with that.

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At the time, all three companies said they were happy with that. I do not know how genuine that was. I think that that some of them were but perhaps some of them weren't. We were keen to do joint lobbying with industry but when we followed it up, it didn't eventuate. It would be excellent but also needs to be done well. I don't think DPIPWE is the place for hosting that data. I don't think they have developed a lot of trust in any segment of industry or NGO in the way that the growth plan was done. IMAS was probably quite a good idea but what is crucial is the criteria of data released - what data will be captured and what data will be released.

At the moment there is not a lot. There is Macquarie Harbour because of the IMAS reports. Macquarie Harbour is fabulous in its degree of reporting. There have been some projects in the Huon and the Channel, but the quality of data isn't as strong as Macquarie Harbour. If we had the Macquarie Harbour level of data statewide it would answer a lot of transparency issues. There are other things we would like to see included, which we have spoken to in relation to escapes - fish kills and anabolic use. Great initiative needs to be in an independent third-party host and there needs to be genuine stakeholder consultation what data is reported.

CHAIR - Have you had a chance to assess the data that they've chosen to put on that portal since it began last year?

Ms KELLY - I haven't assessed it. I was on the EPS website looking for more information and couldn't easily find it. I need to take that on notice and double check I haven't missed anything. Last time I was on there, which was relatively recently, about two months ago, I couldn't find what I was after to answer the questions that we needed to answer for our public commentary.

Ms FORREST - You made a recommendation about the Marine Farming Review Panel. We are asking most people because it is one of the things that keeps popping up. Do you have any further comment you would like to make about the process, the appointment and the operation of the panel as well as the power of the minister?

Ms KELLY - It needs to be more independent from the minister. There needs to be more clarity about the skill set of the representatives, as WWF spoke to. There should be community and the NGO representation, which some may baulk at but we are loud parties in the discussion. If you capture that discussion through governance processes, it stops the discussion from spilling out beyond governance processes and become public conflict. It's wise to include the most active stakeholders, which might mean that you won't look for consensus to approve decisions because that would be too complex and it might result in having dissenting reports.

I would need to consider how many should be on the panel and what forms a quorum. It is important that there is broader representation on the panel. Community and NGOs are completely out of the planning and review process at the moment.

CHAIR - We had better follow up on that. Clearly, from what you have described, your group is quite active in making submissions and finding ways to put itself into discussion processes. Have you engaged in that approval process through the panel with formal submissions or participation in hearings?

Ms KELLY - Yes, we have, but we also found it pointless to do so. I didn't invest a lot of time because we are quite time-poor.

CHAIR - I would like to hear more about that because I understood from the session with the EPA this morning that the opportunity for public engagement that occurs early in the Marine

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Farming Review Panel process is the only opportunity for public interaction. There is no opportunity once that approval process has happened. Even under the process of delivering an environmental licence, there is an opportunity for public engagement if it is within two years of the initial approval. That stops it going to the board, which would be the only basis on which you could have public interaction.

Given that there are no third-party appeals through any of the processes and that initial interaction with the panel is the only opportunity, I would like to hear more about the experience of your organisation.

Ms KELLY - Meg [inaudible] who worked before me on this issue always engaged because she was a stickler for good process. I need to let you know what we submitted on. We definitely made some submissions when I began in the job. But then it seemed pointless. What the whistleblowers speak to in their submissions had been very well known in the community of interest around this sector for some time. There was little independence from industry; the minister made a decision and the advice wasn't considered. The community input was never considered. There was only ever one incident. I should recall the woman's name, I apologise, but there was a scientist who was crucial in blocking a Tassal expansion.

CHAIR - This was in 2011?

Ms KELLY - Yes, do you recall the scientist's name?

CHAIR - Before the legislation was changed?

Ms KELLY - She was asked not to sit again. There has been media reporting of closeness to industry and lack of genuine consultation, not even with community and the NGOs, but with expert scientists for some time. We perceive the process as too flawed. If you have limited time, you look at where you can have maximum impact and we decided, 'Gosh, there is no bloody point in us putting another submission in there', because it is me sitting there for hours writing something that I don't even believe is properly read.

CHAIR - I will ask one further question about that. We heard, when we had the department here, they were able - and I have not yet followed up to check on this - to point to instances where they asserted that public participation at that stage did change, shape or influence what was being considered by the panel. From your experience and understanding, that is not something you have experienced?

Ms KELLY - That has not been our experience. It may have been so with tourism operators, other industry operators, but from a pure environmental perspective it has not been our experience. If there was an opportunity to achieve change I would jump on it. I do not want to input my time pointlessly.

CHAIR - Thank you for your time today. We really appreciate it and the submission you made.

Ms KELLY - Thank you very much.

THE WITNESS WITHDREW.

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Mr ROLAND BROWNE, BOB BROWN FOUNDATION, WAS CALLED, MADE THE STATUTORY DECLARATION AND WAS EXAMINED.

CHAIR - Welcome today to the public hearings of the Government Administration A Subcommittee Inquiry into Finfish Farming in Tasmania. My name is Meg Webb, I am the member for Nelson and I am chairing the committee. I have Rob Valentine, member for Hobart, Ruth Forrest, member for Murchison, Kerry Finch, member for Rosevears, and Mike Gaffney, member for Mersey. I have Jenny and Ali assisting us with secretariat and Roey on Hansard.

Thank you for appearing today. This is a hearing which is protected by parliamentary privilege and I remind you that once you are outside the room, you are not necessarily covered by that same privilege. The hearing is being recorded. It will be available on *Hansard* via the committee website and it is also being broadcast today.

If there is material you believe needs to be heard in camera you can make the request of the committee and we will consider that request at the time.

The way that it will proceed is to have you make a statutory declaration and then if you would like to, some opening remarks, followed by some questions from the panel. Is that clear? Would you please make the statutory declaration?

Mr BROWNE - Yes.

CHAIR - Thank you. Would you like to start with some opening remarks?

Mr BROWNE - I would. You have a letter that I sent to the committee attaching a letter from Macquarie University. What I want to do, and I know the committee is short of time, is to hand up some other paperwork that relates to this issue and walk this committee through what I will describe as a case study of a science failure by Tassal in relation to Okehampton Bay.

When I say it is a science failure, I intend to draw your attention to the words from the Commonwealth minister's delegate and the consultant they engaged. None of this is my own words. I am only going to draw your attention to the various parts of the EPBC machine, the Commonwealth environmental protection machinery. Can I hand these to you, please?

I will draw your attention to particular parts of it, but I'm going to assume that you have very limited knowledge of the process of a referral of a project to the Commonwealth. I will just sketch that and then move into the relevance of this.

The Commonwealth Environment Protection and Biodiversity Conservation Act for present purposes protects what are called matters of national environmental significance, which includes any number of threatened, endangered or vulnerable species. In the case study that I am directing you to I am particularly interested in the southern right whale. The southern right whale has low population numbers, you will see from the materials I will take you to. The Mercury Passage off or near Maria Island is regarded as a hot spot for that whale because it always went there. There was a whaling station at Okehampton Bay.

Tassal proposed the conversion of what was a mussel and shellfish lease in, I think, 2016 into a salmon farm at Okehampton Bay. There was some correspondence between Tassal and the Commonwealth department. The Commonwealth said to Tassal they needed to refer the proposal

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to the Commonwealth to be properly assessed. Tassal said they did not see there was any need to do that, that it was being dealt with at a state level by the EPA. Eventually the Commonwealth put its foot down and in May 2017 Tassal did refer the entire project of 28 pens to the Commonwealth for assessment under the EPBC Act.

Please tell me if I am going too quickly, I am sure you will interrupt me if you need to.

When Tassal did the referral, the first page you will come to is page 66. That is the numbering at the bottom of the page. You will see the reference to sections 2.4 and 2.5. Can I just take you over to page 76 where those two questions are asked in the standard form, EPC Act referral? You will see 2.4 and 2.5 specifically ask if the proposed action, in this case the salmon farm, is likely to impact on members of any listed threatened species, or 2.5, on members of any listed migratory species. Of course, southern right whales come into both of those categories.

You will see there at 2.5 the answer was no. Tassal in that letter at page 66 sought to explain the answer by saying, and this is two thirds of the way down the page or three quarters of the way down the page -

We have answered no to these questions as we do not consider the proposed action likely to impact on any listed threatened species.

Then they say -

Whilst we do not consider it likely there will be an impact in the enclosed risk assessment, we consider it possible there may be some interactions with certain species in undertaking the proposed action.

Tassal having said that, the referral was published on the Commonwealth's department of Environment website. Submissions were invited and received from the public. There was a total of six submissions made.

Can I then take you along to the bottom of page 8? I will refer to this. This is the statement of reasons for the decision made by the Commonwealth on 1 August 2017 that this project was effectively covered by the Commonwealth act because it was a controlled action, but the decision was that if it was taken in a particular manner, it could proceed without a formal permit under the act.

If you go to page 9, 8(a), they talk about the concerns raised, which is that the action will have a detrimental effect on the environment in Okehampton Bay, including on whales and the like.

I then take you back to page 8, where at paragraph 5, in the reasons for the decision, Mr Baker said -

[TBC]

In June 17, the department sought expert advice from an independent consultant, GHD, on the adequacy and accuracy of the referral information provided by Tassal, particularly in relation to potential impacts of waste generation on habitat, for EPC-listed species and ecological communities and other potential impacts from the operation of the farm, and GHD's report was eventually received.

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One of the submissions received was from Macquarie University, and that is attached to the letter from me, dated 14 November. In this letter the authors - led by Professor Rob Harcourt, Professor of Marine Ecology from the Department of Biological Sciences - at what is marked as 1602, they refer to the Tassal claim, under 'Notes for Concern'.

I then take you to the next page, 1603, where under 'Entanglement', four lines from the bottom, they repeat Tassal's claim, where Tassal says -

[TBC]

It is considered unlikely that the proposed action will result in the entanglement of southern right whales. Nevertheless, Tassal will monitor for their presence and report the incidences of southern right whales to DPIPWE as they are observed during the course of marine farming operations.

To which the Macquarie University letter says, under 'Response', in the third line -

[TBC]

Entanglement is one of the major causes of anthropogenic mortality in right whales, therefore we cannot support the statement that it is considered unlikely that the proposed action will result in the entanglement of southern right whales, and we believe it requires further investigation.

At the bottom of the page, five lines from the bottom, they then refer to another claim from Tassal, where it said -

[TBC]

There are no recorded interactions between southern right whales and marine farming activities in the eastern farming zone, hence it is considered highly unlikely that the proposed development will result in any collisions with or disturbances of southern right whales that may inhabit or transit through the waters surrounding the proposed West of Wedge development. Tassal will adhere to DPIPWE whale and dolphin viewing guidelines.

The response is to note that the proponent, that is Tassal, acknowledges southern right whales are involved in the majority of collisions in the southern hemisphere, but then states they are naturally conspicuous, which seems to be used as an argument for why it will not be an issue for the increased vessel traffic associated with the lease.

The logging behaviour - which as I understand it, is just lying in the water - low profile and minimal surface activity, unless engaged in social interactions, makes these whales incredibly difficult to detect, particularly in waters that are not typically calm and clear.

Further down, just above 'Habitat modification', the authors say this -

[TBC]

As supported by the Southern Right Whale Recovery Plan, loss of a single individual of this small population would be significant and is not unlikely given the location of a proposed development in an area of historical and current use by these whales.

There is some reference to habitat modification by Tassal. The authors, at the bottom, say -

[TBC]

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The proponent has failed to acknowledge the potential for cumulative impacts associated with this development. Assertions regarding no impact appear based on the fact they have not been documented in other Tassal leases, which -

- (a) assumes location of all leases are equal, and
- (b) doesn't consider likelihood given absolute low numbers.

Mr GAFFNEY - I have a question. On other occasions, we have been to most of the major producers and their pens, and had a look at the farming, and they were quite well-monitored with cameras and the like, as they are required to be. Are there any instances of whales in the Derwent, for example, being entangled in debris or anything associated with the fish farms? The reason I'm asking is that they say there's low impact because they are really carefully monitored. I'm wondering, have any whales suffered because of the fish farms that are already existing in either the Macquarie or the Derwent, that you are aware of?

Mr BROWNE - That is a wonderful question, but I regret that I am not in a position to answer it, because I don't have that expertise in whales. I wish I did. I am here really, as I said, just to paint a case study based on the information that has come through this process, so I'm sorry.

Mr GAFFNEY - That's fine.

CHAIR - It is of interest to the committee to hear about a case study, as it points to elements of our regulatory system, or the processes associated with it, that we are considering in our terms of reference. If you would like to keep going, with the view that this what we are quite keen to see illustrated through the use of a case study.

Mr BROWNE -Yes, I'll do that. At the end I would like to put some proposals as to how this could be rectified or dealt with in a more appropriate way.

We were up to the stage where the minister's delegate had said they had sought expert advice from GHD, and then GHD provided their report to the minister in July. There are two aspects that I want to point to here. I take you to the bottom of page 647. In a nutshell -

[TBC]

GHD is looking at the identification of the matters of national environmental significance. Which matters, which species, did Tassal identify as requiring assessment in the risk assessment that needs to be done as part of the referral?

They then noted, in the third paragraph under 2.1.1, under 'The proponent's assessment' -
[TBC]

A short description was provided as identified in Part 1 of Appendix A in support of this exclusion process. However, we believe insufficient information or references to relevant literature was provided to justify the inclusion or omission of species in the final short list.

Some information supplied in the assessment was also found to be incorrect, specifically the statement that two of the handfish species listed were unlikely to occur at Okehampton Bay as it was outside of their home range. The Species Recovery Plan identified that Okehampton Bay was well within the known range of the two species.

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The proponent did not shortlist the humpback whale, blue whale and other migratory marine mammals for further assessment.

At the bottom of that page, you have Table 1, relating to the proponent-shortlisted MNES. There's seven: kelp, eagle, swift parrot and the like; the southern right whale was listed.

At 2.1.2 on page 648, GHD has identified that there are another eight species that should have been identified for risk assessment under the act, and GHD then proceeded to carry out their own risk assessment, which should have been done by Tassal in the first place.

Now can I take you to page 652. This is the end result of GHD's risk assessment. The third paragraph says -

[TBC]

Overall it appeared there was a lack of process applied in the risk assessment. Whilst it was appreciated that those who conducted the assessment have a comprehensive understanding of the proposed action, from the information reported it was difficult to understand the logic and assumptions regarding the decisions made.

As a consequence, this has required GHD to refer to multiple documents when determining the potential impacts and resultant likely risk to the species, whereas all such content would be expected to be adequately captured, contained reported within the ERA.

Then they list the key issues that they had with the risk assessment. I can capture these very quickly by saying they were critical that there were problems in definitions of likelihood and consequence categories. The next dot point, they were critical of the terminology that was used to define categories because it was ambiguous. The third one, the risk categories of the assessment were not defined. Importantly, in the fourth dot point they talk about the significant impact guidelines which are published by the Commonwealth department of the Environment. These guidelines were incorporated into the risk assessment matrix identifying whether the potential impacts or interactions trigger any of the criteria relevant to the listing status.

Once the criteria are triggered that leads to a different course with the assessment process. They say that 'the assessment determine none of the guidelines would be triggered prior to or after the implementation of mitigation measures'. I will just continue reading -

[TBC]

Review of that information presented in table format indicated there may be some instances where a significant impact guideline may be triggered prior to the implementation of mitigation strategies. One example is the risk of entanglement of the southern right whale. The assessment listed this as minor. A minor consequence for a protected species is defined by the proponent to be few individuals directly impacted in most years.

However, GHD considers entanglement of a few southern right whales most years would not be a minor risk for this list endangered species and the significant impact criteria may be triggered without mitigation being applied.

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CHAIR - Mr Browne, in the interests of time, I appreciate the walk through, but we need to be prompt in moving ourselves through to point particularly to where you're highlighting to us gaps or flaws or limitations in regulation and then where we might consider changes or differences.

Mr BROWNE - This is all about scientific methodology. It is not one scientist coming to a different conclusion to another as much as GHD being, I would say, fairly critical of the process that was utilised by Tassal. That was actually the last of my references to those papers. The point that was just made, that assessing the risk after mitigation measures have been supplied effectively undermined the risk assessment system because the risk assessment system requires them to look at the threats to the species and then you talk about how you are going to mitigate the risk.

If there had not been an EPBC Act referral then it is highly likely that Okehampton Bay would operate without the rigorous Commonwealth conditions that were imposed. The outcome of this process was there were rigorous conditions.

Can I make it clear Tassal did put up mitigating mechanisms but they were going to be voluntary? When the Commonwealth looked at it they said, 'We will take those mitigating mechanisms but we are going to make them much stronger'. For example, Tassal just said there needed to be a whale observer. The Commonwealth has required a trained whale observer, somebody who knows what they are doing. That is only an example.

Without the Commonwealth's involvement, Okehampton Bay would be operating with effectively a voluntary or a weak set of procedures in place to mitigate the potential impact on the southern right whale. Most significantly, I suggest that the assessment carried out by Tassal was inadequate. If it was not for the Commonwealth, Okehampton Bay would be operating on the basis of inadequate assessment of the risk to southern right whales.

I have only highlighted the southern right whales. It is potentially no different to the quality of their assessment of the other species. As I have said, GHD found it inadequate. We are talking about protection of a very relevant, significant, meaningful species, the southern right whale.

Tassal is a very large company and its approach to the protection of the environment, as evidenced by this scientific analysis, is inadequate. They did not sufficiently assess sufficient number of species. They only looked at seven. There were a further eight that weren't looked at.

In terms of how this can be addressed, what is needed is a mechanism that a high-quality scientific assessment is carried out by an entity independent of the company. Here, the assessment is being done by GHD because Tassal did not do it properly in the first place. I presume that the Commonwealth has paid for the assessment.

Ms FORREST - The Commonwealth asked GHD to do this assessment?

Mr BROWNE - That is right. To do an assessment to review Tassal's proposal. They did not only review it, they said parts of it were inadequate and they had to do it again themselves. They did it again for all of the 15 species that were triggered by the risk assessment.

CHAIR - Not only the seven that had been identified by Tassal?

Mr BROWNE - That is right.

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CHAIR - That only occurred because it was referred to the Commonwealth under the Commonwealth legislation anyway. Where are you suggesting that the high-quality scientific assessment by an independent entity should occur in the process?

Mr BROWNE - It should occur at the very beginning. The act should be amended to require that scientific assessments are carried out to support these kinds of projects and that they cannot be licensed until they are supported by an independent scientific assessment and risk analysis.

Mr VALENTINE - You are talking about the Marine Farm Planning Act?

Mr BROWNE - Yes. That will not be sufficient because the independent scientific assessment needs to be carried out by a truly independent scientific assessment, not by an entity or an organisation that is dependent on the industry for funding. It has to be absolutely independent. Then we can hope and expect a very high quality of scientific rigour.

We have a system in place, for example, for soil testing. All soil testing laboratories have to be independently certified by an organisation that sets quality controlling standards for those. We have the same for forensic laboratories. I am sure we can do it and have an effective system in place for the science that is going to be analysing these complicated marine ecosystems.

Ms FORREST - On that point, at the moment the EPA has been tasked with defining some standards. We are not sure yet whether it is going to be a regulatory framework or some other standard-setting approach that the EPA will apply. Is that the place to put that sort of requirement in, in the standard?

Mr BROWNE - It could be, but it is a very complicated question. I am not sure where the responsibility for this lies, between the EPA and the regulating department, which is actually DPIPW. I do not know at what point it should come in.

Ms FORREST - Are you talking about regulating the environmental aspects or the site selection here? The EPA now has responsibility for issuing environment licences and assessing the conditions under which that would be granted.

Mr BROWNE - I think that illustrates my point. This all needs to be done at the site selection stage. It is no use just identifying a spot and then saying, 'We will see if we can manage the environmental risks'. That should be done at the very beginning. My best answer to your question is that it needs to be done at the site selection stage and it also needs to be done at the regulatory stage.

CHAIR - In terms of the process that is currently around the approval process, you already have an arrangement where an environmental impact statement needs to be part of the proposal put forward for approval for a marine farm development plan. The criteria for an environmental impact statement are determined by a mix of people, including the department and the EPA. That then becomes part of the material put forward to be considered as part of the approval. Then the review panel considers that, effectively.

I wonder whether the Marine Farming Review Panel is fulfilling what you are describing as an independent assessment of that material. Would you like to respond to that? What you are describing may already be in place in the mechanisms that are available under the approval.

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Mr BROWNE - It failed in this case because it went through the Marine Farming Review Panel in 2016 and they signed off on it.

CHAIR - After that point, was it referred to the Commonwealth?

Mr BROWNE - That's right. It went through the panel in 2016 and it was referred to the Commonwealth in May 2017. Although that was after Tassal vehemently rejected the referral to the Commonwealth. It eventually conceded because the Commonwealth wrote to Tassal and basically said, 'You are going to be prosecuted if you do this without Commonwealth approval'.

CHAIR - When it was going through the approval process of the review panel at a state level, are you aware whether submissions were made about these matters, raising concerns or pointing to these issues in that part of the process in which external public and others can make submissions for consideration? Do you know whether that happened?

Mr BROWNE - I can't give you much of a helpful answer to that except I did look at the EDO submission to the panel last night. That was the only document I could find. They made no reference to whales. I don't think whales were on the horizon. Tassal regarded them as a non-issue.

CHAIR - It was not necessarily raised at that time when there could be external submissions. The panel obviously didn't regard that it should prevent the approval. Do you know whether the panel recommended approval to the minister? Of course, the panel does not decide. The panel makes a recommendation to the minister of the day. The minister of the day has the discretion to approve it or not. Are you familiar with what happened in this instance?

Mr BROWNE - I don't know the answer to that question.

Mr VALENTINE - Are you aware of anywhere in the world where they do have restraining cables and all those sorts of creatures that are cetacean friendly?

Mr BROWNE - I'll be careful how I answer this. All this material came from a court case in the federal court. Having read the material over a year, I was personally never convinced that this technology they were using was cetacean friendly. I think it would be better to describe it as 'not unfriendly to cetaceans'. The complex mechanisms they have to have in place to ensure the lines are taut, that the feed and water lines are contained and controlled are quite complicated. On the face of it it is not friendly to whales. It can't be, by definition.

To answer your question specifically, the technology that Tassal has a licence for at Oakhampton Bay is called KGrid Technology that has a particular suitability for this purpose. I'm not in a position to say whether it is best practice.

CHAIR - In relation to the Bob Brown Foundation, do you have a view on the calls that have been made from some other environmental-focused groups? In one instance, it was a call for a shared marine plan that would apply to ours. In the second instance, it was around bio-regional planning that is done as the first stage of identifying sites for marine farming. Is that something that the Bob Brown Foundation also supports? And is it something you have done any work in?

Mr BROWNE - I think the idea of identifying sites in advance, rather than an ad hoc approach, is a good idea. It follows the kind of philosophy the Danish architect brought to the city of Hobart about 10 years ago, I think called Gehl, who said, 'If you have this zone ready for multi-storey

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buildings, people will come along and put multi-storey buildings there as everybody has already agreed it is a suitable site for multi-storey buildings. You don't need to have a fight every time with every proponent trying to say that a big building is not a big building. We would certainly support that kind of planning. What needs to inform that planning is best practice environmental assessments on a whole of landscape or whole of environment basis, not bit by bit.

Ms FORREST - I expect the Bob Brown Foundation is representing a number of people and views? Can you give us some detail about the membership of the foundation? How many members? Who does it represent? How are you funded?

Mr BROWNE - Our funding comes from the public by way of donations. I am chair of the board but I couldn't tell you the exact number of members we have at the moment. It is in the order of hundreds.

Ms FORREST - Could you provide a breakdown? How many are Tasmanian members?

Mr BROWNE - I could potentially provide it. Through our social media contacts, Twitter and Facebook, we have many tens of thousands of supporters who follow our work.

CHAIR - Thank you for your time today. It was interesting and useful to have a case study to highlight some of the matters that we are considering under our terms of reference. We appreciate that.

Mr BROWNE - Thank you.

THE WITNESS WITHDREW

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Ms PENE SNASHALL, CORPORATE COMMUNICATIONS AND COMMUNITY RELATIONS MANAGER, **Dr STEVE PERCIVAL**, CHIEF VETERINARIAN, AND **Ms FRANCES BENDER**, EXECUTIVE DIRECTOR, HUON AQUACULTURE, WERE CALLED, MADE THE STATUTORY DECLARATION AND WERE EXAMINED.

CHAIR - Welcome to the public hearings of the Government Administration A subcommittee inquiry into finfish farming in Tasmania.

These public hearings are all protected by parliamentary privilege but that privilege will not extend when you step outside the room, so I just remind you of that. They are being recorded and will be available on *Hansard* through the committee website. We are also broadcasting today. If there is material that you think should be heard in camera we are prepared to have you suggest that to us and we will consider the request when it is relevant.

If you would like to make some opening remarks and comments you are welcome to do that. We would then have a series of questions to put to you relating to your submission and to other matters arising and we will take it from there.

Ms BENDER - I thought it would be useful for my two colleagues to give you a brief CV of who they are and then I will make an opening statement, if that is okay.

Dr PERCIVAL - I am Steve Percival. I am a veterinarian with over 30 years experience in the aquaculture industry. I started with Huon in 1988 as farm manager and have been working on and off for Huon ever since. I have been the General Manager of fish health for Huon for the last 15 years. However, over the last 30 years I have also undertaken many consultancy projects for the aquaculture industry in Australia more broadly and for the federal and state governments. These include managing and participating in large projects particularly around topics such as quarantine and residue risks associated with aquatic animal imports and exports, aquatic animal diseases, and biosecurity and aquaculture therapeutic use. I have been a member of numerous industry and government state and national R&D and scientific advisory committees, including to the Australian Veterinary Association and to federal government and AQIS. I am currently a member of the National Steering Committee for the FRDC subprogram of Aquatic Animal Diseases and Biosecurity, among others.

Ms SNASHALL - I have 30 years' experience working in community liaison engagement roles across government, NGO and the private sector. This includes seven years' managing all consumer relations at the Royal Hobart Hospital, which included complaint management and chairing the hospital's Consumer Reference Group. Government roles of mine have been at the Education department, TAFE and Macquarie Point. Prior to joining Huon 18 months' ago I spent four years as a senior advisor for a government minister.

Ms BENDER - Thank you, Chair, for the opportunity to present evidence to the committee.

I sit here today representing 750 smart Tasmanians and their families who can lay claim to selecting, designing and developing the most advanced pens, moorings, on-shore grow-out facilities, automated remote systems, feed systems and just this week the arrival of the most highly developed, environmentally sound fish transfer vessel in the entire international salmon industry.

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I speak today for Huon Aquaculture, the communities we farm and the people who work with me.

I would like to table two maps -document A that clearly shows the areas that Huon farms in so it can be recorded that we only farm in the lower D'Entrecasteaux Channel, Storm Bay and Macquarie Harbour. Many submissions are focused on areas that Huon has not and will never farm in because we don't believe, based on science, that these areas are most appropriate for growing salmon, that is, the East Coast, Tasman Peninsula and King Island.

I need to reiterate our farming areas because, contrary to opinion, including the EDO which stated the growing zones were chosen by industry, Huon did not have any input into the grow-zone map.

Huon had a 30-minute meeting with the minister and his advisor regarding the development of the Salmon Growth Plan.

I have heard a lot of comments about the need for industry to take a precautionary approach to expansion and we totally agree. While we have been farming in Storm Bay since 2014, which was based on the scientific monitoring that commenced in 2009, over the next few years we don't expect to use our full lease allocation.

We underpin our farming operations with fact and science and as this is a new farming area, we think incrementally increasing production is the best approach based on science which is why we are on the record stating that the total biomass in Storm Bay should be no more than 40 000 tonnes.

As an aside, prior to Storm Bay east of the Yellow Bluff lease being approved in 2018, there has been no additional production lease areas granted to Huon over the proceeding 10 years which reiterates our precautionary approach to farming. Our last amendment was in March 2018 for a lease in the Channel and [inaudible] south.

Committee, I sit here today, and indeed have done every day of these hearings to date, ready to take onboard the genuine, respectful feedback directed to this company but sadly criticism backed by science has been very thin on the ground as opposed to criticism backed by opinion, perception or, worst, divisive hatred of this industry.

Chair, this statement made under oath is not anecdotal, it is not perception, it is not what I think or what I want, rather it's fact. I have read and listened to comments that, at best, I could label apocryphal and, at worst, blatant lies of our industry, our business, our employees and myself.

At Huon we don't seek to dodge scrutiny or appropriate regulation, nor do we suggest we've always got it right but when we do get it wrong, we accept our responsibility in rectifying the impact.

My company took the state and federal government to court over our view that the authorities had failed to meet their responsibilities in managing farming in Macquarie Harbour. We took this unprecedented action because we had tried for years to get the state government to accept what the science was saying but also because we knew we must always care for the environment in which we farm because if we don't, this highly successful industry will not exist.

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Salmon farming is subjected to more scrutiny than any other form of primary production. We are the most regulated form of farming in the state, indeed in the nation. We expect to be carefully regulated, we expect to be held to account for our operations. What we also expect though is for a level playing field with the same sets of regulations applied equally across all Tasmanian farmers - both land and sea - and indeed across all possible industries and the service providers that can and do affect the Tasmanian fresh water and the marine environment.

Going back to regulations and controls, more importantly, these are and should be based on science, not hearsay, not what you read on Facebook or Twitter, not what you hear from the committed critics who seem no benefit in our industry whatsoever. Those regulations should be based on monitoring, data, benthic surveys, sampling and testing, which they are and which are all considered by state government and the EPA when assessing what conditions will be applied to every single salmon farm site in Tasmania and freshwater hatchery sites.

The Australian Institute claimed, a myth perpetuated by many, that there is no publicly available information about the licence or lease conditions attached to the salmon industry - wrong. This map has for many years included lease details and more recently in the latter part of 2019, it has included all marine farm licence conditions and environmental licence conditions.

I want to table two documents here - document B and document C. The first document refutes the claims by many that there is not enough environmental regulation and controls applied to salmon farming leases, including that there is no cap on production, which is utter fantasy. The second document is a copy of one of our lease EIs: 38 pages of conditions we must adhere to when farming at east of Yellow Bluff. As an aside, in Tasmania, aquaculture is the only food or animal producer or processor that is bound by environmental licences, ELs, that is correct. No abattoir, no dairy, no primary producer of any type, or any other food processor is subjected to EPA environmental licences.

Committee, I have listened to demands for more regulation on this industry, as well as more public release of standardised information on every aspect of this business, which no business or industry in Australia is expected to provide. At the same time critics accuse the industry of overwhelming them with information. Members of NOFF, TAM, Tasmanian Protection from Marine Environment, have made these comments in this very room. At the same time, many then acknowledge their inability to understand the breadth of regulation we are expected to function within. We agree, which is why Huon has a dedicated compliance unit which manages and oversees all of our regulatory compliance. For the record, ASX requirements are a legal requirement for any listed company and its directors. Meeting community wish lists for information is important but cannot be done outside of the fiduciary duties of company directors. That is a fact that many don't seem to grasp.

Back to the science. The science underpinning these regulations and controls should and does come from independent bodies such as IMAS, CSIRO, FIDC and overseas research institutions. These highly respected scientific research bodies will not and do not compromise their independence, which is what we expect. If this peer reviewed independent advice demonstrates a need to make a change to our farming practices, we do so. We will always act on the advice of highly respected scientific research bodies and as the scientific knowledge improves we improve with it.

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Claims are being made under oath of collusion with regulatory bodies, researchers and stakeholders. Indeed, even of our state government analytical laboratory falsifying results. Claims made without a single factual shred of evidence.

We are committed to a process of continual improvement. Why? Because it is in our best interest. We are constantly monitoring and evaluating development internationally and adapting them to fit our own circumstances here in Tasmania. The arrival of our second boat, the *Ronja Storm*, earlier this week is testament to our commitment to continuous improvement and also testament to our commitment to support a global network of industry experts of all aspects of salmon operationally and scientifically. We undertake research ourselves, which is setting benchmarks for other global producers to follow. Highly scientific selective breeding to improve the quality of fish, as well as their ability to adjust to warming water resulting from climate change. Continual feed trials with up to four international feed companies to improve diets, fish health and sustainability of both source ingredients and feed conversion.

We are not forced to do this research. We do it because we are committed to producing the very best Atlantic salmon in the world in the most sustainable manner. This is why we are so committed to, firstly, getting the best biosecurity regulations in the world, but secondly, making sure that stakeholders undertake and implement those regulations in full.

A key component of this company's ethos is making sure we have a comprehensive and effective biosecurity regime in place which is underpinned by government regulations and the new Tasmanian biosecurity act. Our commitment to achieving this outcome has been clearly demonstrated through Huon's preparation and public release of the Tasmanian Salmonid Industry Sustainability Assurance Framework which largely focuses on biosecurity matters. Huon also led the efforts to hold the global salmon conference in 2017, which was attended by highly recognised international government and industry experts on biosecurity.

This conference was instigated to highlight the importance of biosecurity for the Tasmanian salmon industry, and drive effective biosecurity practice and regulation into the future. I have listened to people feted as experts of my industry - people who have not been anywhere near a salmon farm through to those whose version of fact is based on a desktop study of an industry done 25 years ago, which was never implemented.

These people simply have no idea of the level of highly technical innovation, research, continuous improvement, animal husbandry and environmental management that we undertake 24/7. Nor are these ill-informed comments respectful to the hundreds of clever, skilled, tertiary and vocationally qualified people we employ.

Many submissions claim the industry is damaging the Tasmanian brand, and provides no return to the state of Tasmania. The only damage comes from those people who create their own facts. Where is the evidence to support the claim that the industry is damaging the brand? The people we employ are regarded as global leaders of the salmon industry, which is something to celebrate - something for every Tasmanian to celebrate, as we do our excellent produce and experience.

How sad is it that this company is internationally recognised for its cleverness, yet it is pilloried in its own home state? At Huon, we are proud our company is being recognised as leaders in sustainable food production, and for that matter is at the forefront of innovative salmon farming

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globally. Our ethos is to encourage everyone to strive to do their best, and it falls to Peter and me to provide that to every one of our 750 employees with this opportunity.

Tasmanian salmon is among the very best the world can produce, and we should rejoice in that. Committee, under sworn oaths many inaccurate allegations have been levelled against us. I want to take this opportunity to record and table evidence, based on research data and fact, that refutes these claims. We have oscillated about whether to do this, but we have decided that due to the complete inaccuracy of some of the submissions, it is only fair that our evidence to those claims is also recorded live and directly written into *Hansard* under oath, using the same privilege afforded to those who have spoken before me.

Complainants of our industry use a report from the Australia Institute to refute facts about the economic value of this industry. How is it that a totally inaccurate report by the left-wing socialist think tank headed by a Tasmanian ex-Greens staffer and current affiliate of the Tasmanian Alliance for Marine Protection - TAMP - is viewed as fact? Our figures are based on Huon ASX and ASIC-audited accounts, from information sourced from IMAS, determined after extensive research reports from the FRDC, and from the Australian Bureau of Agricultural and Resource Economics and Sciences.

In 2017-18, the total gross value of the Tasmanian salmon industry was \$838 million - significantly greater than dairy at \$429 million, beef at \$337 million and potatoes at \$123 million. The state Government's own figures provide evidence that growth in the Tasmanian agrifood value is due to the salmonid industry. Don't take my word for it; these facts are outlined in the Tasmanian Agri-Food ScoreCard 2017 and the IMAS *Economic and Social Assessment of Tasmanian Fisheries 2016/17*.

Our financial contribution to communities also covers locally based contractors. In 2018-19, Huon spent more than \$219 million with Tasmania-based contractors and suppliers. We did a tally: there were 672 businesses with a Tasmanian postcode that supplied goods, services and consultancy to our company over this two-year period.

Also, during the past five years, Huon has invested over \$400 million in capital infrastructure, spread across Tasmania, once again utilising hundreds of Tasmanian contractors, suppliers and goods. This is not a desktop guess. These are facts. The Australia Institute claims the jobs created by the industry cannot be determined. Wrong. I refer the committee to page 16 of our submission. Huon was the first agribusiness in the world to develop a purpose-built portal, enabling anyone with concerns or a general interest in what we do to easily find accurate data about our farming operations.

Our Sustainability Dashboard, launched in January 2014, publishes FTE figures in real time, taken directly from the payroll data. For six years, FTE data has been available every fortnight. The data is in addition to data being published every year in the annual report, and in addition to data being available on the government salmon portal.

We paid 750 people at our last payroll, and that excludes the 144 labour-hire contractors who work at our processing factory, as well as our FTEs there, which also refutes claims from many that automation is driving down employment.

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Our workforce, prior to the arrival of the first well-boat, was 467 FTEs in June 2014; and post, it was 514 FTEs in June 2015. Now we are paying 750 people, and contrary to many claims, 12 of the 14 crew on the new well-boat are Australian citizens. There are at least three sources of FTE data, and yet the Australia Institute and others claim the industry is secretive about the number of people we employ.

As an aside, over the coming year, we anticipate expanding production from our processing facility from one shift over a five-day roster, to two shifts over a seven-day roster. That will mean upwards of 40 to 50 additional jobs for people living in the Latrobe-Devonport area.

Other facts are that of our 750 employees, 99 are undertaking a Vocational Education and Training qualification at the moment. In the past 12 years, 276 employees have completed a VET qualification during their employment with Huon Aquaculture, yet our critics claim we provide no benefit.

Another fact that demonstrates the depth of expertise and skills working within my company is the current range of job vacancies. As of this morning, we had 36 vacancies, which include assistant veterinarian, a learning and development officer, farm hands, diesel mechanic and divers et cetera, of which 16 are brand-new positions.

A number of people have suggested that the salmon industry in Tasmania should be regulated the same as in Norway, where it is claimed that salmon farm leases are sold to the highest bidder, and we should follow Norway's lead to go offshore. The claims made by the Australia Institute, and perpetuated once again by many, are wrong, and I table Document D.

In 2018, Norway auctioned off extra biomass licences, so if a company wanted to increase its production, it could purchase the extra biomass at a premium. In Norway, the scenario so proudly spruiked by the Australia Institute as being gold star was, in effect, selling extra farming space to the highest bidder, without any requirements to meet environmental, social or fish welfare indicators.

The comments made by TAMP representatives of the need to move offshore, as they do in Norway, are also wrong. The largest offshore prototype pen, known as Ocean Farm 1, is owned by SalMar. Our marine operations crew for Huon visited this salmon farm in Norway recently on a site where the average significant wave height is just 2.5 metres, a little more than one-third the average significant wave height modelled in Storm Bay, where we now farm. In May 2018, monitoring equipment in Storm Bay measured the average significant wave height at 6.5 metres, which equates to 12-metre waves.

The mooring system Huon has developed and installed has been modelled by Aquastructures, a Norwegian maritime company that specialises in modelling anchoring systems for North Sea oil rigs, other deep-sea infrastructures and salmon farms. I table this as Document F, which compares the Norwegian salmon regulation system to the Tasmanian system.

It was written by three Norwegian scientists following a study tour undertaken in January this year. I quote directly from this paper -

In Tasmania, this regulatory process of this regulatory system has contributed to innovations and practices that produce less environmental footprint. Amongst

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other things, the industry has developed more robust, remotely open cage plants that can operate in areas with wave heights of up to 10 metres.

If you look at Tasmania, there are really good reasons to let the environmental challenges guide the regulation of the salmon industry through continuous monitoring and ongoing assessments of how the industry interacts with the various marine natural environments it is invited to. We believe a similar regulation could contribute to reduce the industry's footprint in Norway.

Norwegians believe we farm the right way here, better than them, so why do TAMP and others think they know better than experts from a country that produces 22 times the volume of salmon in Tasmania? The Norwegians know a thing or two about growing salmon.

Many comments have been made that the industry does not acknowledge or take on board any feedback from communities or, indeed, does not communicate. Under oath, the member for Franklin, Rosalie Woodruff, earlier this week stated, 'industry does not care at all'. This comment is a direct attack on the integrity of not only myself, but also of my community relations team which works hard to ensure we are connected, listening to, improving and supporting our communities.

Apparently our care stopped once we listed our company in 2014. Funnily enough, the facts don't support that claim. For a period of many years, Huon was embroiled in various legal cases, where many of my staff worked incredibly hard to provide evidence in a bid to protect our farming environment.

During that time, we were also implementing our controlled growth strategy, which included the construction of our Forest Home Hatchery where significant local consultation occurred prior and during construction. We held public meetings in and out of normal business hours.

September 2015 comes into mind, with a meeting held at the Judbury Hall. We had briefings with business and council stakeholders, direct letterboxing to residents, as well as meeting individual residents on numerous occasions.

The same level of community engagement was undertaken when we built our nursery at Whale Point. We reorganised our Lower Channel farming areas to enable adoption of the new pen and mooring technology as a step for us to go offshore.

We also handed back farming leases from the Upper Huon. This required community consultation as per legislative marine farm planning requirements. Not one single objection was tabled during this lease reorganisation process.

We were also the first business in the world to release a real-time sustainability dashboard, the development of which required input from various stakeholders, including environmental non-governmental organisations - ENGOs. We have documented evidence of all communications, meetings, complaints, regulatory inspections, which were all logged as part of our EPA compliance requirements.

I have been, and am still, involved with various community groups, to enhance opportunities for our communities. Many of my staff are also involved in a breadth of areas that support the

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communities we work and live in, including being volunteer members of boards and advisory groups.

We also prepared and launched our white paper. During that process, we consulted with all relevant stakeholders including commercial fishermen, recreational fishing, ENGOs, and all types of peak bodies, regulators and the minister.

This document was prepared to endeavour to bring proactive discussion to the table as to continuous improvement across the industry, government, science and regulators in the absence, at that time, of any other documented strategic industry plan.

The white paper was the instigator of what is often referred to as the international salmon symposium, hosted by IMAS to bring international expertise to the state, to bring stakeholders to the table, including the public, and to engender a holistic discussion platform to further the continuous improvement of all aspects of salmon farming in this state.

I refer the committee to pages 42 and 43 of our submission, and this document. Our environmental impact statement for expansion into Storm Bay, which outlines all the consultation undertaken, lists of people we met with, how we changed our lease location based on feedback from residents and interactions with MAST and commercial and recreational fishers, as well as the reporting requirements we complied with relation to our lease sites in Storm Bay.

We also have a log of the numerous invitations to visit our business to engender discussion with many that oppose us, including, among many, the member for Franklin, Rosalie Woodruff. She has still not found the time, even though she represents the very electorate where the most salmon farming employees in the state live.

In 2014, we held a public open day at Port Huon, attended by 6000. In 2016, we held another very successful open day at Princes Wharf No. 1, where we set up the first of its type virtual reality tour of Storm Bay, showcased our remote feed systems, held tours of *Ronja Huon*, had product tastings, made available people from across all aspects of operations to answer questions, and much more.

We also invited various stakeholders, such as IMAS and seafood training, environmental monitoring companies, DPIPWE and a feed supplier. That day alone cost us over \$200 000. We literally took the farm to town to show, educate and listen.

Committee, for a member of our parliament to say under oath that we don't care is not only a blatant lie, it is vexatious and damaging to our brand, the professional reputation of our company, and our employees in turn.

I would like to briefly speak to, and table, documents which provide evidence to refute claims made in various written submissions to this committee by the following people or organisations.

We heard, this morning, from WWF Australia and its views on how it can play a part in responsible regulation of this industry. The comments I heard this morning were both offensive and demonstrate utter hypocrisy.

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WWF Australia was pivotal in bastardising the supposed international gold star environmental standard of ASC. To that end, we attended the board in Utrecht, Holland, to discuss our concerns with the standards some years ago. They took no action. I am happy to table the presentations we made as well as the evidence, multiple emails between my company and ASC reps. I do not have that here but I am happy to table that evidence.

One of the reasons we are sitting here today is because WWF Australia supported poor farming practices in Macquarie Harbour which resulted in me and my company taking both the state and federal governments to court for their inaction. WWF Australia knew exactly what was going on in Macquarie Harbour because it was instrumental in creating the problems, yet Ms McCrea representing WWF Australia gives evidence under oath that the reasons for the failure in Macquarie Harbour were unknown to them. This is a lie. Just read the documents lodged in the Federal Court as sworn evidence from me and my company.

WWF Australia partnered with one of our competitors to create an unfair competitive commercial advantage - that is, the association with WWF and the WWF logo on salmon products to one company for exchange for a substantial fee without any verification or justification for providing that exclusive endorsement and advantage. The artificial and unfair bias created by WWF Australia's unsurprisingly led to serious industry division. Not only did WWF Australia's action create a market advantage for one company, but the use of the WWF logo and ASC certification enabled this company to engage in poor industry practice, which was regularly given public and regulatory credence due to the close association they had with WWF Australia and ASC.

Ms McCrea spoke this morning about social licence. WWF Australia supported the erosion of social licence in this state through its duplicitous actions. Poor practices eventually and inevitably led to serious environmental harm, large-scale fish mortality and a complete erosion of community confidence in the Tasmanian salmon industry. We are still paying for that today.

Huon strongly asserts the WWF needs to take responsibility for the significant commercial bias that is perpetrated within the Tasmanian salmon industry and the detrimental role it played in bringing the Tasmanian salmon industry to this current negative position within its own community. Until this occurs WWF's claim of improving Tasmanian salmon industry has very little credibility.

Huon had separately provided evidence to WWF Australia on our position and we were going to provide them with an opportunity to assess that documentation before commenting further. However, given the outrageous comments made this morning we are tabling the document now, labelled Document L. Ms McCrea is not based in Tasmania, she does not speak for my company, she has not visited our farm. How are her comments viewed as gospel over the hundreds of scientists and researchers and professionals who have worked alongside me for 30 years in this industry?

I will move on now. Dr Lisa-ann Gershwin claims salmon farming is exacerbating jellyfish blooms, which are in turn impacting ecosystem stability and industry viability. There is no evidence for these claims and Dr Gershwin fails to provide any information in support of her claims. In fact, the available evidence suggests that the claims are baseless. We know this because Huon collaborates closely with several internationally recognised jellyfish experts from Australian universities and overseas. In addition, very troubling, Dr Gershwin makes assertions about CSIRO's activities, motives and independence which should be strongly challenged. I table Document G.

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Bruny Sustainable Aquaculture claims the salmon industry provides zero benefit to Bruny Island, Document H. Claims have been made and when our company makes philanthropic donations to local groups, it is creating community division. It saddens me that the community small grants scheme I founded some years ago, called Huon Helping Hands, which is specifically designed to help grassroots groups provide assistance in their own community and has funded projects such as community gardens, playground equipment and defibrillators, is viewed as inappropriate because it is classed as buying friends. Over the last seven years we have donated in excess of \$700 000 in cash grants, product and in-kind support to communities all over this state.

TAMP representatives made a range of claims which require correction, and that is Document I. Ms Sheena Neil made serious allegations about a cover-up in relation to management of marine debris. That is Document J.

Mr Geoffrey Swan continues to make a range of claims under oath about our Lonnvale Hatchery and impact on the Russell River, which are wrong. Independent biomonitoring reports undertaken over years and years continue to indicate there is no environmental harm from our hatchery downstream into the Russell River. A recent report, January 2020, indicated there was minimal evidence for impacts of the hatchery on the health of the macroinvertebrate fauna and algae growing downstream. The full report is on our website - search for Lonnvale. Analysis of monthly sampling conducted between December 2015 and April 2019 showed when nutrients are measured in parts per billion, that is one drop in an Olympic-sized swimming pool, there is no difference between 2 kilometres upstream of our intake and 3 kilometres downstream of our outfall when measured as a median result. Again, this report is on our website. An email sent from the EPA to Mr Swan on 2 July 2019 stated -

The nutrients being discharged from the flow-through farm are in compliance with the current environmental limits set in the EPN and subsequent environmental licence, are at the right level to protect the environment or values of the Russell River.

Evidence after evidence and no environmental harm. I would also like to take this opportunity to table a copy of a Facebook post that Mr Swan referred to in his verbal evidence. He stated, 'Frances Bender posted an explosive and slanderous Facebook post about me'.

I table a copy of that post and I will label it Document K. It provides evidence that there was no reference to Mr Swan in the post. In fact, I clearly stated I would not name the person, despite the fact that Mr Swan constantly defames my husband and me, and senior members of our company and our company in his Facebook posts.

In conclusion, I am at best perplexed and at worst I am angry about the purpose of this inquiry. I simply cannot understand what the community is endeavouring to find out, using a process that quite clearly is potentially damaging to the reputation of this company, its employees, the industry, regional communities and the economy of this state. What do you hope to achieve from this process?

We acknowledge and support the need for people to raise concerns but not to peddle mistruths under oath which are not challenged. We also acknowledge the need for the industry to comply with regulations and controls, which we do. As a committee, if your concerns relate to the actions of successive governments that have regulated this industry for more than three decades, I ask as

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an employer of hundreds and hundreds of Tasmanians that you consider the collateral damage being directed to their livelihoods and therefore take it up directly with the state Government.

Chair, you spoke about this inquiry providing an avenue for people to put their views forward. I ask that the committee equally consider the facts of our farming operations.

It is a fact that we are not the government. We do not set policy. We do not set regulations. We are entitled to operate legally under our licence conditions and we do. That is our right.

Chair, you represent an electorate where 109 of my company's employees live. You are taking the helm of an inquiry that is scrutinising the value of their employment, their honesty and respect for the law; their respect for environment and community. In effect, you are challenging their future livelihoods and their personal and professional integrity. Yet we had to lobby hard for your committee to undertake a tour of our farm site in a few weeks' time. We did have a tour organised last year, which I had organised with Ruth. It was cancelled by the committee, not by us.

I would like to finish by saying I, like many in regional Tasmania, lived through the forestry wars. It was divisive and it shattered communities. It left neighbours, families and friends fighting. Livelihoods were destroyed, requiring longstanding regional-based families to move or partners to become FIFO employees to keep a roof over their families' heads. We suffer some of the most significant poor health and education outcomes nationally. We suffer from the effects of longstanding intergenerational unemployment.

Committee members who represent city- or suburban-based electorates may not be concerned about the migration of families from regional areas and the opportunities afforded to young people just starting out, but I am. Regional areas of Tasmania often bear the brunt of the damaging consequences of campaigns undertaken by people who either don't understand the social, economic and health challenges faced by people living in regional areas or, worse, they don't care.

For the past few months my job has been to try to maintain morale, not only across my company, but across my market and customers, suppliers, contractors and communities, but, perhaps more heartbreakingly, for the thousands of employees and their family members who derive their income from this industry. They feel threatened and depressed, but worse they feel they have been branded as criminals about the perceived lack of care and attention that they deliver to the environment they work in, the fish, the colleagues they work with and neighbours and communities they live in and around.

In fact, many have contacted me extremely upset at the claims made in some of the submissions that have been tabled. They've also had to cope with a constant barrage of simply wickedly inaccurate social media behaviour. They come to work in a company that undertakes its business legally and ethically, as per the plethora of legislative requirements set down by our Government and its authorities. They should not have to cope with the apparent and wilful level of ignorance and selfishness exhibited against the future of their highly skilled industry, which does damage to them and their families mentally, socially and economically.

In closing, at the risk of sounding repetitious, it is absolutely right and proper that everyone is entitled to their own opinions but they're not entitled to their own facts.

Thank you. I am very happy to take questions.

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CHAIR - Thank you for making that statement. It probably is useful to begin by addressing some of the matters you raised in relation to the committee itself before we move through into some questions. I'm just going to touch on that quite lightly. It's a shame that the committee process is called into question.

The parliamentary review of government legislation and regulation is literally part of our job. We are all part of a committee that is an ongoing committee, Government Administration Committee A. Our committee has a certain number of portfolio areas that we are responsible for reviewing, holding to scrutiny and holding to account. We do that in a budget Estimates process; we do it in a range of other ways and one of the ways we do it is through inquiries.

This committee process is far from unusual. The regulations relating to this industry comes well within the purview of our Government Administration Committee A. It was a matter of consideration for the committee, given that there has never been a state parliament-level inquiry into the regulation of this industry and given that this industry has grown. It's an important industry for our state. There's recognition of that from many quarters in different ways. Some matters of concern seem to be consistently raised in the community. We felt it was appropriate and timely to engage in our job which is to hold an inquiry such as this.

The terms of reference of this inquiry are not to look into your business. We're not examining the operation of your company per se. The terms of reference quite clearly lay out what we are examining and that is, as you go through them -

A sustainable industry growth plan that's a government policy document, matters relating to that, and

The Marine Farming Planning Act, and some matters relating to that.

Those things are the purview and the responsibility of government and for us as parliamentarians. In our role, it's our responsibility to scrutinise those things. So, those are the terms of reference.

Just to be really clear, the process is that we set terms of reference, as we have, and we call for submissions. It's entirely appropriate that that is an open process that anybody can participate in. We receive submissions. They are made public. We read and consider them.

We also hold public hearings like this. The hearings function to give a range of ways for people to present us with further information or answer our questions relating to the information they provide.

When people make statements at these hearings they can be held to account for them. Your assumption seems to be that - and I think you used the term 'gospel' - 'We're taking things as gospel'. That's an assumption that you're making of the committee's assessment of what we hear in this process. We are considering and we are thoughtfully gathering information, which we then consider together as a committee and eventually we put forward a report. That report will have findings and it will have recommendations.

Ms BENDER - Madam Chair, I do understand the process.

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CHAIR - Great.

Ms BENDER - I have been involved in other committees before.

CHAIR - Excellent. I want to be clear that there is nothing untoward about the process we are following.

Ms BENDER - I have not claimed that there is.

CHAIR - Excuse me, I will continue speaking as the Chair and then we can continue to engage. We are engaging in site visits and in no way are we being obstructive about that. We have already undertaken some site visits. We have more booked in and we have them booked in with your company.

The process that this committee is following is entirely appropriate. It will deliver a considered response in the end. I suggest to you that the fact you have been able to sit there and make the statement you made at the beginning of your time here today, provide the weight of material you have provided to us which we will, in all good faith, consider along with the other things we have been given, is exactly why this could be a valuable process for the regulation of this industry and for addressing, perhaps, some of the difficulties that seem to be there, in terms of consternation. That is well and truly something I imagine is a valuable outcome from this process.

I apologise for taking the time to clarify that. If any of my colleagues would like to add anything to that before we move on?

Mr VALENTINE - It is a fair comment. It is important to understand that everybody does have the opportunity to actually put submissions forward. We have to ferret through and weed out those aspects that are not in relation to the terms of reference and those that are and make some sort of findings and recommendations based on that.

As much as anything else, it is an opportunity for industry to stand up and say what they are doing as it is an opportunity for others to say, 'Well, they are not doing this very well.' That is what we are doing here today.

Ms BENDER - I take those comments on board and I accept the role you have here. My comments were not questioning the right to have a hearing. My comments were aimed at the unfortunate side-effect of these types of things, which is the collateral damage which we all went through and we have gone through for decades before, to the people who are gainfully employed within the industry. That is where my comments were coming from. They were not coming from a place other than there. I wanted to clarify that point with the committee.

Mr FINCH - We appreciate that concern.

Ms BENDER - Thank you.

Ms FORREST - A couple of points in leading to questions. You referred to the forestry industry. I could use the same analogy. There were many, more than I even want to think about,

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inquiries that I sat on into the forestry industry that would have had the same effect. We continued to do it because there was a degree of community concern.

As the chair said, this is the first Tasmanian parliamentary inquiry into the regulation of the industry. In view of the extensive expansion, it seems timely to do it. There were commitments made by the Government that were slow to be implemented, as we have discussed in the past.

Ms BENDER - Yes, I agree.

Ms FORREST - As you indicated, a number of us have had a number of visits to salmon farms. I do not like going out in a big sea, I admit.

Ms BENDER - You will need to bring your Kwells with you when we go into Storm Bay.

Ms FORREST - I will need more than that. I might fly out! I commend you for sitting through the evidence to date and reading through it. It is a big task because we have all done the same, but it is an important task. When people have made claims, we have challenged them. We can only challenge them and then they can say what they think.

I want to take you to one claim you made and I would like you to provide some evidence about that claim. That was the claim relating to the relationship between the World Wildlife Fund and Tassal, when you said Tassal provided a significant financial contribution to them.

Ms BENDER - They had an exclusive partnership we were not entitled to have.

Ms FORREST - You said they paid a significant amount of money to them. Do you have evidence of that?

Ms BENDER - WWF have said how much they have paid for them. It is in a public record.

Ms FORREST - So you are basing it on that. I am trying to clarify. It was a claim you made without clarifying where that came from.

Ms BENDER - Ms McCrea touched on it this morning at the end of her evidence as well. She did not say the number but she did talk about that.

Mr FINCH - Excuse me, Ruth, if I too could get some clarification on that. That was the initial agreement with WWF. I got the impression, speaking with our WWF representative, that there was a desire to include the other two companies in the certification. Was there an approach made for Huon to be involved in that later on?

Ms BENDER - We went through an ASC certification but not via WWF. We went directly through ASC.

Mr FINCH - Was there an approach from WWF to join in or get that certification that Tassal received?

Ms BENDER - We did not feel it was necessary to have any relationship with WWF. Once we were made aware of the fact that we could have a partnership but we could not tell anybody

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about it, we decided that did not really suit the ethos of our company so we decided to step away from it.

Mr FINCH - WWF approached Huon Aquaculture?

Ms BENDER - We approached them in relation to how we could also become an industry partner because we thought that that would be a good thing for the industry. When we got into the process we found out that we could become a partner but we were not allowed to tell anybody we were a partner so we could not see the point in that process. We felt they could not offer us any technical knowledge that we could not use from in our own very highly qualified people and international connections to undertake the ASC certification ourselves.

CHAIR - On that arrangement with Tassal, just to be quite clear I understand the statement you made about the fact that there is commercial advantage to having the WWF logo on that which was given to one company and not yours and the other. You also mentioned regulatory advantage. What did you mean by that comment?

Ms BENDER - I think that if you could find the time to read through the kilos of Federal Court documents you would see the process that we entered into in good faith in Macquarie Harbour with the area management agreement and the process that we went through there ended in a situation where that process did not work. There was no advantage in us being able to work together any more.

CHAIR - The way you phrased it, I thought you meant that the WWF association with Tassal gave them a regulatory advantage.

Ms BENDER - It gave them a perception in the community and amongst the regulators that they had a credibility because they had WWF-auspiced relationships and they had ASC.

CHAIR - I understand the commercial advantage of that, but can you point to an instance where they gained regulatory advantage? I am interested if there is something about the regulatory system that allowed that to happen.

Ms BENDER - It created a perception that there was nothing happening when indeed there was something happening because they had those certifications and those logos attached to their business, which was the whole impetus to our court hearings.

Ms FORREST - If I might go to our terms of reference and some of the comments you made in your statements. We will start with the data collection and publication. I am aware that Huon has had a data dashboard for some time. There are a couple of questions related to this. Do you believe it is more effective and efficient to have one portal where all data is provided; it is in a consistent reporting framework? I am interested in your views around this.

Ms BENDER - Yes, I think there is room for two. I think there is probably room for one like we have now which brings together the industry information in a standardised way. I think that portal, while it has not been in place very long, that system, is improving all the time. But there are things we would like to as a company or a business report that are more bespoke to us. Having our own dashboard with our own information on there, which might be more removed from the

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regulatory type of information that would be required on an industry-based dashboard, I think there is room for both.

Ms FORREST - In terms of the data portal that sits in DPIPWE, you said it was consistent data. We have heard evidence that suggests that it is not consistent, that different measures are used to report the same or similar information. Do you have a differing view on that?

Ms BENDER - I might throw to Ms Snashall because she has been working on the development of this portal in relation to our data.

CHAIR - I am interested in your involvement in that if you could talk about that.

Ms SNASHALL - My other comment is that we have a view it should be managed by IMAS. I am on a working group that works with the other companies, and we engage with DPIPWE. The industry has always been very up-front right from the beginning that it should be maintained.

Ms FORREST - Do you understand why the decision was made to put it with DPIPWE then?

Ms SNASHALL - No, we don't.

Ms BENDER - That is a question for government. We have always been on the record as saying we feel it is really important, to the very point that has been coming through in the submissions that people don't trust the information. To be held under the umbrella of IMAS, which is a world-respected research body, I think gives the opportunity for the community to have much more trust in the process. That is not a criticism of DPIPWE, but DPIPWE is an arm of the government, so I think there is just that arm's length.

Ms SNASHALL - I am very confident that the information on the portal, which is comparing all three companies, is consistent, so there are consistent metrics indicators.

CHAIR - I don't think we have had it suggested that it isn't accurate. The inconsistency, I think, is the different places you can find data at the moment.

Ms SNASHALL - Yes, and there would be, because the portal is looking at it from a particular point in time. There is also an issue that for those companies that are ASX-listed, we can only report certain pieces of information after we have reported to market, so there is always going to be a time lag there. Frances touched on that before. It is a huge consideration for us about the way we report data.

Ms BENDER - I think it goes without saying that our company ethos from the very get-go - and Steve can attest to this, as he has been with us forever - is to be transparent. We have tried our very best to do that, and so we were very supportive of a portal scenario.

CHAIR - You had a scorecard, and that really is indicative, so can I stay with that?

Ms FORREST - You have your own sustainability dashboard, which you have had up for a long time. In your opening comments, you were talking about engaging with NGOs. Can you talk more about how that worked, and who you engaged with, and what you actually did to establish it?

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Ms BENDER - A wide range of NGOs, actually. We had, I think, two meetings - I believe it might have been just before Laura Kelly's time - but there was the Environmental Defenders Office, Environment Tasmania and various other NGOs, where we talked about: What is it you think we are hiding? What is it that you would like to see? Then it was a matter of us developing with an IT company how we could actually have some data that we knew we could actually either manage and keep contemporary, or as technology has developed, a fair percentage of our data can come through the system live, and we can actually check it is accurate before it is posted.

I think we have had two or three iterations of our dashboard since we started, and it would be fair to say when we first put our dashboard up it was because there was a hole in that space for information, and people were calling out, 'What are you doing, we want to know this stuff?'

Ms FORREST - What feedback have you had back from the NGOs on that data?

Ms BENDER - The interesting thing was when it was launched, we were actually concerned about some of the data we put up, because we thought we would be talking about interactions with seals. This was some time ago, and we were concerned that now we are going to get bashed around the head with providing this information. To a group, the feedback we received was, 'Well, at least they are being transparent'. There was more about the fact that we were actually trying to offer the information up voluntarily, rather than what the information was at the time.

I took that on board and thought it was a really positive way to move forward. That was what I was hoping would happen when we developed our dashboard. To that end, we have put video footage from underneath our pens, because that is something people talk about - 'What are you doing under the pens? There are mounds of faeces.' We said let's get some video evidence on that.

CHAIR - Do you have real-time monitoring on your portal?

Ms SNASHALL - No, I don't have real-time footage. In fact, one of our staff sitting behind us today is one of the people who goes and collects this footage. The most recent footage we have underneath pens, both at Storm Bay and pens in the Huon River, is about six to eight weeks old. That is about every quarter -

Ms FORREST - You update it fairly regularly?

Ms SNASHALL - Yes, we do.

CHAIR - It sounds like a positive good-faith process from both sides that you engaged with back in 2014, the first iteration of your sharing of that. It is reflective of what we have heard from many people that their interest is in the transparency being there, not necessarily consternation about what it is. So accessibility and transparency, that sense of that. That is the intent behind the shared data portal too. Do you know if there is a reflection in the development - you have been involved with the development of that central portal - whether there is the same engagement with other groups outside of industry that would reflect that process that you quite valuably undertook?

Ms SNASHALL - I don't think there is. I am pretty sure it is fairly contained to industry.

CHAIR - We will be asking them too.

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Ms SNASHALL - The details in the salmon growth plan, and I wasn't around when that was first developed, didn't go to the extent of what sort of indicators would be there and the type and detail that would be included. Our view would be as much as possible but we continue to put more information up. In response to Environment Tasmania's recent concerns, we changed the way we displayed our information around antibiotic use. That was clear and unambiguous and we will continue to do the same.

Ms BENDER - I think that's one of the points about this industry. The industry, yes, it is a big industry now, but I was there when it started and it has been a continuous improvement process. As we have learnt more things, we have changed practices; we have adopted things; we are so innovative with our uptake of technologies. So that as time goes on all this sort of information and information sharing is something we have always embraced. Then you have to measure that against the regulatory requirements and also our financial regulatory requirements and fiduciary duty-type things.

CHAIR - We might go to the sustainable industry growth plan now if we can with some questions. One of the things we are interested in and we have asked others, but you guys are well-placed to answer this, more so than the Government or the EPA. The growth target in there is posited as an industry growth target of a \$2 billion industry by 2030 which the Government then endorses and supports in the plan. Can you talk us through how that was arrived at and, were that to transpire, what that means in terms of how the industry looks in this state? What is the size in terms of scope, areas?

Ms BENDER - I can't really talk you through where that number came from. I don't know where that number came from so I can't sit here and say that I do. If I were involved in creating that number, and it was probably one of the few things I did agree on with Jo-anne McCrea from WWF - that you would generate that number from looking at where you physically and environmentally can grow salmon.

CHAIR - That mapping idea?

Ms BENDER - It is no good just saying, 'Well, you can grow them there', because the physical reality is you can't. You could extrapolate that where the value of the industry is now and then roll it forward for a period of years. If I were doing it, that is how I would have done it. But I don't know how it was done.

CHAIR - As a participant in the industry, is it one you have signed up to in some sense in a formal way?

Ms BENDER - No, we haven't because we have always taken - I will use the words and they sound like dirty words now - the precautionary principle of growing at the same rate as the market and investing in new technologies to allow us to grow on a sustainable manner. To the point of us not using all of our lease areas in Storm Bay, that is because it is the way we choose to forward plan for our business. We want it to be sustainable across all measures.

To say we have those hectares so we are going to grow that next year is not the way we run our business.

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CHAIR - In terms of that plan and the map that goes with it with the grow and no grow zones, do you have an understanding of where that came from and how those areas were developed? Is that something you participated in?

Ms BENDER - I have no idea where the map came from. If I am being very frank, the map actually caused more community angst. I agree that a map should have been developed after further investigation of where the industry physically can be.

CHAIR - It might have dropped you in the hot seat a bit, in a sense.

Ms BENDER - It did. It has created more angst for us because people think it is the industry saying we want to have this and we want to go there. That is not the case. It certainly is not the case for my company.

CHAIR - You have already described when you first began talking today about the fact that you as a company have deemed that there are certain areas around the state that you would not go near because you can readily, from your assessment, decide that they are not suitable.

Ms BENDER - They are also not suitable for our type of farming. We made the decision and the \$400-plus million investment to try to go out to where it is rough, into the offshore areas. We can't and we reorganised our Lower Channel leases, when we implemented the new fortress-style pens and the mooring systems, to be able to go into the deeper areas, so we handed back the leases. We didn't, at that time, get any more hectares or any more nitrogen or any more feed cap in the southern D'entrecasteaux area. We only reorganised the leases so our pens could actually fit, because they were different and bigger.

CHAIR - The Government refers in its one-year review of the sustainable industry growth plan, at one point under the final action 17 about a new collaborative approach within the industry and therefore a more effective relationship with government. There is this sense that the industry is planning well together somehow and interacting with the Government about it.

In that, has there been contemplation of this idea of maybe a shared planning process that might, in an accountable and inclusive way, map out?

Ms BENDER - The industry, and I can speak for our company, has been involved in the early days. We are supportive of the IMAS spatial planning tool they are developing to see whether that can give us an opportunity. You can't look only at that independently but along with the biological requirements and the environmental requirements of actually physically growing the fish.

It is all very well to say that you can have a salmon farm there because there are no houses and no-one will see or hear you; if it is not deep enough and if it is not suitable biologically to grow something, that is pointless.

Dr PERCIVAL - It has to be validated because some of the initial spatial planning maps that came out had all the smolt being grown out to sea. The smolt cannot deal with it. One of the things with that whole process - it is a good process, but at the end of the day someone still has to make a decision. It does not solve the problem, it helps you to make that decision. Someone has to make that decision.

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Ms BENDER - It is only a tool.

CHAIR - You have to be accountable for that decision and explain how you got there, which seems to be an issue about the map.

Mr VALENTINE - I am interested in your comments on the sustainable industry growth plan. I heard you say you did not have a lot of involvement in it, certainly on setting the target of how far it might grow. Do you have any comments on the content of it? Whether it has missed anything in particular, whether you feel there are certain things in there that are nonsense? I am not saying there is anything; I am asking your perspective on that plan.

Ms BENDER - My perspective on the plan is that it is great we have a plan. With any plan, a plan should always be a living document; it should always be being reviewed and should be contemporised.

For many years the industry was growing. To be quite frank, in some ways we took the state and the government, perhaps, by surprise that we were quietly going about growing, and all of a sudden this industry was actually so valuable to the Tasmanian community. There wasn't really a plan in place. There was legislation and environmental management of us, but not a strategic plan.

The fact we have a plan now is great, but the plan needs to be constantly reviewed, just like some of the issues, like the portal, and those sorts of things. The whole thing just needs to be constantly reviewed. I would agree with some of the comments that Laura Kelly made today, as well.

We are not sitting here saying that we don't agree with some of those comments. We need to work together in whatever way is appropriate to make sure that the Government understands the requirements of the industry, and the responsibilities that we have, and what the community wants from living in this state. What it is all about.

One of the things that really makes me upset nowadays, is, sadly, I believe, we have gotten into an adversarial position, whereas if people are genuinely concerned about things the only way you can resolve them is to work together. Be able to sit down and work out what the issues are, and you are not always going to agree, but the more intelligence you can bring to the table. I was very pleased when Wes said this morning, about him and Dr Klumpp going overseas and looking at overseas examples. We can ground truth that against what we are doing here. It is not going to be one size fits all, because every environment is different.

Mr VALENTINE - The first part of this plan talks about maintaining public confidence in the salmon industry. You heard me ask questions this morning around current leases that are inshore possibly being stopped as it gradually moves offshore.

Do you have any comment to make on that?

Ms BENDER - I can't make comment to that, other than to say that where we farm in the lower D'Entrecasteaux and offshore in Storm Bay, they are the sites we believe suit our business model and where we see our company going into the future in a sustainable manner.

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As far as Macquarie Harbour is concerned, we are very happy that the biomass has been reduced down and there are signs of that environment recovering, which is great. There is a lot more research and monitoring happening over there now.

We actually do believe in farming in a precautionary manner.

CHAIR - On that, Rob, I am just going to point out to you that Document F, tabled today, on the front talks about more salmon at the best of sites phasing out the worst sites being beneficial to everybody.

I think that links in to the concept of that question.

Ms BENDER - Yes, which is why we handed in, when we did the reorganisation, two sites further up the Huon River. When we started 35 something years ago, we had tiny little pens, and no-one had any equipment; we didn't know what we were doing. People weren't doing anything wrong in those days. We were all learning. Then as time has gone on, we have become better at it, we have more technology and the ability to go off -

Mr VALENTINE - There is certainly a lot of technology. We have seen that at the sites.

Some of the angst caused is through operational aspects rather than perhaps noise pollution - for instance, at night - and those sorts of things. Some of the submissions are really keen to point out those sorts of issues.

Do you have any comments on that? People can't sleep at night because there is a boat out there towing this pen - you've read them probably - at 1 knot to allow the fish to rid themselves of certain things. It keeps people awake. How are you working with the community to try to overcome some of those sorts of issues?

Ms BENDER - Absolutely. If you look at the way we actually farm now, in 2000, and certainly completed well and truly before 2005, every outboard in our fleet was changed from a two-stroke to a four-stroke. There are two reasons for that. One is they are so much quieter and, second, they are much more fuel efficient.

Mr VALENTINE - Is the next step battery-operated maybe?

Ms BENDER - Well possibly. The *Ronja Huon* and now the arrival of *Ronja Storm* - those two vessels enable us to now take the water in these vessels instead of the old-fashioned way of us towing water to leases to bathe fish. They are all diesel over electric motor and are very, very quiet and go to the sites. The amount of tows, I think we have cut out is on our dashboard; I cannot remember the number, so we are not towing cages any more at 1 knot everywhere like we used to years ago. We could not manage to run our business utilising that old-fashioned technology any more.

As our company has developed, we have brought in these systems that have flow-on benefits to the community of not having noisy towboats sitting there outside your house doing 1 knot for three hours going against the tide.

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Mr VALENTINE - Some might say, I do not know how big that new vessel is, but it looked big to me -

Ms BENDER - One 114 metres.

Mr VALENTINE - Having that sitting out in the middle of the Channel washing fish may create a bigger, if not a bigger, noise problem.

Ms SNASHALL - In our written submission there is a fact sheet about the issues around noise and about the new *Ronja*. The noise that she makes is pretty much comparable with a dishwasher. So if you imagine -

Ms FORREST - Once in place, or when she is under steam?

Ms SNASHALL - When she is operating.

Ms BENDER - Amazingly quiet.

Ms SNASHALL - Myself, my team, we have regular conversations, meetings; I go down and have site meetings in terms of people's homes to talk to them about some of the issues they have about noise and lights. The primary issue is that we always operate within our regulatory framework. We always operate within what our EPA licence is or council permit conditions in terms of noise and those sorts of things.

Having said that, there has also been instances where we have been able to tweak our operations to make it more compatible with being on a public waterway. That is the other thing you always have to think about - it is a public waterway. Last year we had a discussion with some Dennes Point residents. They were concerned about the lights from the *Ronja Huon* as it was going past Tinderbox/Dennes Point. We were able to talk to the skippers and they have come up with a standard operating procedure which is essentially anything other than non-essential navigation lights when they go through a part of the waterway. We do that, we have done it, but I will stress we always operate within our regulatory framework. I have had conversations with people, many residents, who are frustrated. I get that. My point is we are not in breach of the requirements placed on us, and we are doing an enormous amount of work through the introduction of vessels like the *Ronjas*, the fact that we are offshore, all those other things, to minimise the impact that we have socially.

Mr GAFFNEY - Frances, earlier you mentioned not taking up all of your lease for Storm Bay and that you are precautionary and it is incremental. It would be interesting if you could give us a snapshot of how do you assess when do you expand? When do you take up more of your licence of Storm Bay if you need to? That sort of thing. I am interested in what process you undertake especially with the Government's plan to expand the industry. How do you work in that space?

Ms BENDER - We start from the very basic position of what we believe the market requirement is going to be and then we have to work backwards because it is a three-year lead time and if you perhaps need more input, that is more smolt, if you needed to build another hatchery that could be five or six years planning that you have to work back from. We extrapolate what we believe the market growth will be, then we look at what assets we have to actually grow those fish.

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Then that's how we make our decision. Then we look at our financial models as to whether we can actually do that. It's a very holistic view that we have.

We don't base our view on the sustainability growth plan. We base our view on our business plan using our asset utilisation as best we can. I think the other thing that's important that's happened just in recent times, and various people have touched on it in their submissions, is as technology has been evolving, we've actually, with our Whale Point facility, now been able to grow our fish to a larger size before we put them to sea. So we actually get better utilisation of our leases and longer fallowing times by actually growing the fish on land for a longer period of time. But all of that takes an enormous amount of time to put those steps in place and also an enormous amount of money to do that. It is a very long process.

Dr PERCIVAL - It's also about the equipment and the infrastructure out there. We are farming in some of the roughest conditions in the world. You don't just go out into that environment and everything goes well so it's a learning process. As an example, our Storm Bay 1 lease, which is the northern most lease - if you go down to the Storm Bay 4 lease, which we haven't used yet, it's actually quite a bit rougher down at that lease than it is at the Storm Bay 1 lease. So we want to make absolutely sure that we've got it right before we start moving into those other leases.

Ms SNASHALL - The other thing, Mr Gaffney, is Document B, which I've tabled, also highlights the issues around production caps. So it's not just this long-term perspective that Frances has talked about, but there are also issues about short-term biomass caps.

Mr GAFFNEY - My last question is - what input did you have, and I reiterate, to the Government's assessment that within so many years they would double the growth of the industry? Did they say to you, 'What's your plan, Huon, for your growth market so we can add up what you're doing with Tassal and Petunia and say this is going to be', or did that come as a bit of a shock to you that they came out with that statement?

Ms BENDER - We didn't put any specific numbers to the development of that plan as far as Huon was concerned. I think it's fair - it's very hard to keep bashing the Government but it's easy to bash the Government - but I think, in my mind, the number set was probably an arithmetic extrapolation of where the industry was rolled out over time with a bit of aspiration saying - 'This industry has a capacity to do that'. I don't think that it was done in any way other than that. Certainly, we didn't put any numbers to that process.

Mr GAFFNEY - You didn't have projected targets where you might want to get to with tonnage of fish over the next five, 10, 15 years or so?

Ms BENDER - No.

Mr GAFFNEY - Okay. Thank you.

Dr PERCIVAL - As part of that expansion, Huon has been very forthright in that we've got to do it in the right way. If we don't do it in the right way, if we don't get biosecurity right, for example, the industry is not going to expand. It's not just about more area to put more fish; it's about doing it in the right way.

Ms BENDER - Worse than that, the industry won't expand, the industry will contract.

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Ms FORREST - Following up on a couple of those points. In terms of the expansion plan, you made the comment in your opening statements about how you believe there should be a maximum of 40 000 tonnes of biomass in Storm Bay but you're not the only operator there. You can only control what you do, obviously. If the expansion is beyond that, we still don't have the biosecurity plan finalised. I know that's a work in progress and we had to pass the Biosecurity Bill which took quite a while last year. But in terms of this approach that you're taking, you say it is a more precautionary approach to expansion, and Tasmania is known for value rather than volume for a small state, and that's in all forms of agriculture. How does the proposed expansion, in your view - not just your suggestion that it should probably be less than what's being proposed - how does that proposed expansion fit into the value versus volume argument here?

Ms BENDER - I don't think that's something I really should comment on other than I agree with the Tasmanian brand principle - and we are in world salmon farming terms, even though people think the industry is big here, we are bespoke. We are very small compared to international terms. It is important, and I understand people's concern about 80 000, 40 000 tonnes, but the simple fact of the matter is that currently we are the only company out there. I believe our competitors are planning to put a few fish out there soon to see how their systems work. We are on the record for saying there should only ever have been two biosecurity zones there anyway, one on one side and one on the other. We don't believe there should have been one in the middle. We think it is not appropriate as far as biosecurity is concerned and we are on the public record and have been the entire time.

Ms FORREST - You have been for some time saying that.

Ms BENDER - Absolutely.

CHAIR - That is because of the indication that with the movement of the sea there, you can get biosecurity hazard with things moving further distances, so therefore there should be more distance between pens?

Ms BENDER - Steve's the international biosecurity expert.

Dr PERCIVAL - There are a whole range of reasons but having three companies in the one area makes it more difficult and overseas experience tells us that. They try to shrink it back so there are only single operators in particular areas. To reinforce the point, people have suggested that the companies have exactly what they want in terms of the Marine Farming Review Panel. I fronted the panel a few times and I can tell you that we did not get what we wanted in terms of some of these issues.

CHAIR - One of the things I wonder about that, and I am interested to have your comments is that -

Ms FORREST - Can I just finish - in terms of that expansion plan, I did ask DPIPW this and they were going to come back to us with some information. I did ask who was the first to raise the alarm in Macquarie Harbour. I thought it was the industry and particularly you or your company.

Ms BENDER - It was actually us and Petuna jointly for a while.

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Ms FORREST - You are saying now that you think there are significant biosecurity issues if you have three companies in Storm Bay. You raised concerns about Macquarie Harbour and proved to be right. Should we be quite concerned about the biosecurity risk, even in view of the biosecurity plan that is being developed, or do we need to wait until we see the biosecurity plan before we need to concern ourselves more fully with that?

Dr PERCIVAL - The key thing with the biosecurity plan, there has been a lot of work that has gone into it but at the end of the day it is the implementation of it that is critical. It is making sure that everything that is in that plan actually happens. If it doesn't, it is not a real -

Ms FORREST - So you engaged with Government in advising on that? Who is working on that? Obviously Lloyd Klumpp is doing a large body of work there, but according to Frances, you have some serious credentials in this area?

Dr PERCIVAL - So the vets on all the companies, the CEOs, the operational managers, have all been involved in developing that.

Ms FORREST - Are there people from the independent scientific world as well in all of this?

Dr PERCIVAL - In terms of the initial draft, we have Professor Larry Hammel from the University of Prince Edward Island in Canada, internationally recognised as a biosecurity expert. We had him review the whole thing now as an independent sort of person to verify that it was okay.

Ms FORREST - Are you happy with the progress to date?

Dr PERCIVAL - Yes, but it could always be faster.

Ms BENDER - I would like to bolster Steve's comment. It is about the implementation that is important. We come always from a place of being practical farming people rather than talking about words and documents and whatever because we have thousands and thousands of them. But if you don't actually all follow the same process at the same time in a timely manner with biosecurity we will only be as good as the lowest common denominator. If someone else in a farming area near us can't bathe their fish because they don't have the proper equipment, can't do the sorts of things that need to be done in a timely manner, all of us suffer.

It is not about being selfish. It is about that is just a reality. That was one of the big points that came through in the symposium when all the international people came from overseas and our point has always been, 'Let's just learn from everybody else's mistakes and some of the issues that have happened overseas and let's not repeat them'. There has been lot of work. The Government changed the legislation and that is great. We have a new act. We have put together a plan and had it peer reviewed by one of the world's experts, but it's a bit like the rubber needs to hit the road now.

That is the next process, and Lloyd was trying to explain that the other day, but we can't be managing to the lowest common denominator. We have to aim for as high as we can.

CHAIR - I am going to pick up on that idea that you are quite vulnerable to what others are doing in this space and what your competitors and operators are doing. In terms of the approval process, which is something we are interested in with our terms of reference, it is clearly something

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that government sets up and can amend potentially. We are interested to hear about things that might be good improvements or good considerations there.

Currently, for example, if a marine farm development plan is going through that approval process that you had concerns about - somebody else's plan, not yours - there is no point in that process anywhere that allows you as a third party to make an appeal on a decision that is being made. Is that something that concerns you, given the vulnerability of the interactions in this industry? Do you feel that is a gap in that process at the moment which you see value in having filled?

Ms BENDER - I think that it is a gap. In an ideal world we wouldn't be worried about it, but that is not the world we live in. I think when you are looking at a plan for a new zone, the only way you can look at that area is holistically as far as biosecurity is concerned. That is the lesson from the rest of the world. It is basic farming principles. We are not reinventing the wheel when we are talking about biosecurity. Every farmer across terrestrial areas across the world faces the same issues. If your neighbour has foot and mouth and you are not following a biosecurity plan, well, next door is going to have it soon. So even though you are doing everything properly, if they are not doing things the right way, it is going to happen. There is a level of responsibility on us all and there is a level of responsibility on government to make sure that we all do that.

CHAIR - Indeed. That approval system, that idea of a merit's review, a third-party review to an independent entity from a group that had concerns about a decision made that is absent currently from the system, may never need to be used. But given that it is not there at all, you would have no option at this present time if you did have concerns. It is something we are hearing from people is a gap. That is why I was interested to hear your reflections on that.

Dr PERCIVAL - On that, there's a lot of experts around and genuine experts at IMAS and CSIRO and biosecurity experts, and at the end of the day you are not going to get consensus even amongst the experts. The reason we really pushed hard for that symposium to bring all these experts from overseas to the symposium was to raise awareness in everybody of just how important biosecurity was. Up to that point I don't think people got it, but at the end of the day not everything we say should happen is necessarily right so at some point you have to accept someone is going to make a decision.

Mr VALENTINE - On this issue about the science and the importance certainly with biosecurity, doesn't the same thing apply when it comes to site selection and getting the science right from the word go in choosing the site?

Ms BENDER - Absolutely, I don't disagree with you at all. Site selection is absolutely vital and the sites that we had when we started aren't necessary the sites that are appropriate for our industry now. Exactly the same thing has happened all over the world. So we are not reinventing the wheel here.

Dr PERCIVAL - It is not just site selection. Sites can carry a certain amount of fish. So you have three different sites. It's not putting too many fish onto that site. It's no different to putting too many cattle on a paddock - that will cause problems.

Ms BENDER - Its exactly the same.

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Mr FINCH - Early in your presentation when you were talking about the evidence that was coming forward, you said there was a hatred of the industry. I have been here listening to everything that has been said. In fact I nearly commented this morning that all I am hearing is positive comments about the salmon industry. That is what I am hearing. Can you just enlighten me as to what made you think that the evidence that we are hearing represented a hatred of the industry?

Ms BENDER - I think that there is a lot of very negative comments and behaviours that are simply inaccurate across social media, particularly -

CHAIR - In terms of the context of this committee, I think Kerry was asking.

Ms BENDER - Also the fact that people make claims that are so inaccurate. For instance, if I talk about marine debris. There was evidence given the other day about marine debris. You just sit here and you think that is not correct, that is not what is happening and do you honestly think that if I have probably 300-plus or more employees on the water 24/7 that I am exposing them to risk because I do not care about what is out on the waterways? There is this level of it. Then you get this feedback into the community. Some of the people that have given evidence here have been polite and said their piece, but that is not how they deal with you in other circumstances.

Mr FINCH - I am only wanting to draw the difference between what might be happening on social media, or what might be said behind the scenes but, certainly, it is not my interpretation of what we have been hearing presented. We have heard concerns and even solutions, but I did not get a sense that there was a hatred of the industry.

Ms BENDER - There is a percentage of that. When you live in regional areas you get it.

Mr FINCH - We are not feeling it.

CHAIR - Indeed many submissions absolutely preface themselves being they support the industry in terms of the existing and being part of our state.

Ms BENDER - I would have to challenge that, Chair, to say that they say that, but then when you try to engage, they will not engage. That is the frustration and we have that frustration.

CHAIR - I accept your comment on that. We cannot assess that because that is not the process we are doing.

Ms BENDER - No, you cannot assess it but that is the reality we face when we try to engage. They will say, 'Yes, we support the industry.' Then you say, 'Come on, let us get together, come down and have a look and we will talk about what your issues are', and they will not do it.

Ms FORREST - You will know that I asked a lot of them that question and they did say they believed it could be carried out sustainably and all of that. It is on the record if you need to go back.

Ms BENDER - I know it is on the record.

CHAIR - Many of them describe it, and it was not necessarily in reference to your business, so I am not making it as a comment, but many of them describe some frustrations in engaging with industry too. I think that there is probably, and again, what I hope is the value of the committee

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process is that that level of consternation that is out there, there might be similar feelings from both sides of the understanding of issues. Hopefully we give a process here where we can lift that up into a spot that gets looked at a little bit more clearly. We are certainly considering it in a purposeful way around our terms of reference, as we should, because that is where our focus needs to be.

I am mindful of time. I am going to wrap us up. There are many matters that we did not cover in the time we have had with you today. I appreciate that we have had you for a good amount of time and thank you. Perhaps we can follow those things up with you with some written questions to receive further information, if you would not mind?

Ms BENDER - Absolutely. We are quite happy to answer any questions in writing. We are also happy for everything that we have lodged to be made public, and we would expect that everything that we have given you today would be made public. We are also happy to present to you again if you have any other further questions verbally as well. We think it is important that people see what we do and how we are trying to do it.

CHAIR - I certainly hope that you feel you have had an opportunity to do that today in speaking with us and even though we have not covered everything we would might have liked, we can follow up further with that.

THE WITNESSES WITHDREW.

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Ms BARBARA NOWAK AND Ms LOUISE CHERRIE WERE CALLED, MADE THE STATUTORY DECLARATION AND WERE EXAMINED.

CHAIR - Welcome to the public hearings of the Government Administration A subcommittee inquiry into finfish farming in Tasmania.

I remind you that things said in this hearing are protected by parliamentary privilege but once you are outside this room that does not apply. There is an information for witnesses statement that you are welcome to refer to. The evidence presented today is being recorded on *Hansard* and will be available via the committee website. It is also being broadcast today.

The way the hearing usually works is that I ask you to make an opening statement and then we have a series of questions we put to you. It may be that you have evidence that you wish us to consider hearing in camera. If that is the case, I will ask you to make that request of the committee and then we will consider it as a committee and take it from there.

Ms NOWAK - We would like to request that our hearing is in camera.

CHAIR - Do you put forward a reason for us to consider that request?

Ms NOWAK - Yes, we would like you to consider our request on the basis of what we are about to say based on our personal experience of being members of the panel, and some of it may be confidential.

CHAIR - The committee now needs to consider that request in private. We need to clear the room, thank you. If everybody could leave the room and wait outside, the committee will make that determination.

Evidence taken in camera

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Dr LISA-ANN GERSHWIN WAS CALLED, MADE THE STATUTORY DECLARATION AND WAS EXAMINED.

CHAIR - Welcome, Dr Gershwin. These hearings are protected by parliamentary privilege, so anything you say in here will be covered by that privilege; however, once you step outside the room that privilege does not necessarily apply. The hearing is being recorded and the *Hansard* of it will be available on the committee website. We are also being broadcast. If you want to have something considered in camera, you need to make that request of the committee and it will consider the request at that time. Would you like to make an opening statement?

Dr GERSHWIN - Thank you for inviting me to give further evidence in this inquiry. I ask that you please allow me to read this prepared statement as a whole and then I am happy to take questions after. My statement is brief, only about five minutes, with three main points which I believe have not yet been adequately addressed. I believe these are critical issues for environmental health, human safety and the sustainability of Tasmania's salmon farming industry. I will give you hard copies of this statement that are fully referenced to academic standard and I ask that it be lodged as an addendum to my original submission.

Point 1 - Salps and jellyfish update

My earlier submission was made at the beginning of the jellyfish season, not long after Huon Aquaculture's announcement that they lost 64 per cent of their profit last year due to jellyfish. Now, well into this season, it is clear that this has been another gelatinous summer. That is to say, many species of jellyfish have all bloomed in superabundance, including many known to pose a danger to salmon. Both Tassal and Huon have had losses this year due to jellyfish but because of industry data secrecy, researchers cannot assess the severity.

There is another issue that occurred this year, as it does all too often. There is a jellyfish-like creature called a salp. Salps are vegetarians, they eat only phytoplankton or single-celled drifting algae, which are often toxic. Salps grow up to 10 per cent of their body length per hour and go through two generations in a day, so they require huge amounts of food to power this individual and population growth rate. Nutrients drive algae blooms which, in turn, drive salp blooms.

Salmon opportunistically eat salps. We know this because sometimes salmon die with a gut stuffed full of salps. So do native fish, dolphins and seabirds. It appears that salps consume and concentrate toxic algae, then act as toxic bullets when eaten. The extent to which salmon farming is triggering or worsening salp blooms or salp-mediated algal toxicity should be a high priority for research.

Point 2 - Heavy metals and salmon

As many of you may know, Huon Aquaculture recently posted a page on its website called 'Salmon farming and heavy metal pollution - the facts', which contains false and defamatory statements against me by name, which is attached to what I'm going to give you. I should probably thank them for doing this because it underlines the need for open discussion about this extremely serious issue.

The Derwent has a legacy of heavy metals from past industrial practices, including mercury, zinc, cadmium, lead, copper and arsenic. Heavy metals can cause a range of acute and chronic health effects, including death. Normally these metal molecules are tightly bound to sediments,

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keeping them out of the food chain, but excess nutrient-rich sludge from salmon farming leads to hypoxia, or low oxygen water, that breaks the chemical bonds, resuspending the heavy metals. They are then up taken by phytoplankton and passed up the food chain in ever-accumulating concentrations.

Researchers from IMAS found that phytoplankton in Ralphs Bay were high in heavy metals and research overseas found that salps concentrate heavy metals in their body tissues. Algae absorb heavy metals, salps eat algae and become contaminated, and salmon eat salps. It seems apparent that sublethal consumption of salps is a viable pathway for heavy metals to get into salmon and into dolphins, penguins and albatrosses.

The extent to which this salp-mediated heavy metal pathway could affect the salmon in Storm Bay and Macquarie Harbour must be researched with urgent priority. We already know that heavy metals are in the salmon. Huon released results from a single test of five fish from one pen in February 2019 that showed mercury and arsenic in the fish - that's attachment 2 in the documents I have here. It was a small amount, and I'm giving Huon the benefit of the doubt that the test results represent its most polluted pen rather than their safest, but people uncomfortable with consuming mercury or arsenic might find it disturbing, worsening the industry's social licence problem and threatening Tasmania's clean, green image.

Point 3 - Salmon hatcheries and motor neuron disease

There have been recent media reports about blue-green algae, also known as cyanobacteria, linked with clusters of motor neuron disease in Griffith in the Riverina district of New South Wales. It may also have a link with salmon. Motor neuron disease is a progressive, terminal neurological disease that causes the muscles to weaken and waste away. Life expectancy from diagnosis to death is about two and a half years. This disease affects more than 2000 Australians and is increasing, and costs Australia around \$2.5 billion a year.

This correlation between motor neuron disease and blue-green algae has been known for decades. In Griffith, for example, the risk of motor neuron disease is seven times higher than our national average, while near a lake in New Hampshire the incidence of motor neurone disease is 10 to 25 times higher than the American average. Many more cases have been published around the world linking not only motor neuron disease, but also Parkinson's disease to consumption of seeds containing blue-green algae, consumption of seafood exposed to blue-green algae, inhalation by proximity to lakes and rivers with algal blooms, water sports on contaminated water bodies and seaside communities with algal blooms. So, too, people have become unwell from drinking water contaminated with blue-green algae and the neurotoxin has been found in crops irrigated with contaminated water.

It's not just people. You may recall seeing media reports last year about mass fish deaths in the Murray-Darling by suffocation, and livestock suffer an agonising death by poisoning from drinking water contaminated by blue-green algae. The neurotoxin in question is a non-essential amino acid called BMAA and most blue-green algae produce it.

Also, you may know that Alzheimer's disease involves neuroplaques and tangles in the brain. They are also characteristic of Parkinson's and motor neuron disease. In a landmark study four years ago, scientists were able to induce these plaques and tangles in monkeys which had ingested blue-green algal neurotoxin.

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Here in Tasmania, blue-green algae are already causing taste and odour problems upstream of the Bryn Estyn water supply for Hobart, requiring filtration in the summer. Taste and odour compounds have also been found in Lake Meadowbank and in the Tyenna and Styx rivers. These places supply drinking water, people fish and play there, and the water is used for crop irrigation. Last year, Christine Coughanowr warned in her salmon hatchery submission to the EPA and Southern Midlands Council for Meadowbank that -

The clear, shallow and still stratified characteristics of this lake could make it very susceptible to algal blooms, including toxic blue-green algal blooms.

Any waterway with high nutrient input is at risk. Presumably TasWater is regularly testing for toxic algae in every waterway statewide downstream of nutrients or upstream of people and livestock. These results must be made transparent as a matter of public confidence.

If I sound alarmed, it's true, but I am not alarmist. As a scientist, the research I've done in this area leaves me concerned, but I was muzzled by my employer. As a citizen, I see health and safety risks being ignored, leaving me concerned and I feel that I must speak up. These chronic problems take time to develop. We currently have risk factors and there is research out there saying there is a connection between these. We need to know.

Moreover, all these organisms - jellyfish, salps, phytoplankton that uptake heavy metals and are eaten by salps and blue-green algae - are increasing as our waters warm, and will continue to. All of these organisms are pests and you can't put these genies back in the bottle. Like a ratchet, they worsen click by click. Boiling water will not make it safe from these hazards. We may be looking at a potential massive public health crisis related to salmon.

Australia has had enough crises - fires, floods, droughts and now the looming coronavirus - threatening to further strain our health system. We don't need another crisis. Lack of knowledge is the danger because it leaves open the question and creates distrust, panic and loss of public confidence. We must maintain public confidence in our public health system and public confidence in our food safety system.

We need to know more about these threats and our risks. We've got to stay on top of this. It's about our health. It's about our livestock. It's about Brand Tasmania. The bottom line is this: no water, no life.

Thank you. Every single fact I gave is referenced by peer-reviewed research.

CHAIR - You said you would like to table those documents, thank you.

Dr GERSHWIN - Yes, please.

Ms FORREST - Thanks, Lisa - do you mind if I call you Lisa?

Dr GERSHWIN - Sure, of course.

Ms FORREST - I've been listening to some of the other media stories around - the MND one was recently on the news channel I was watching.

Dr GERSHWIN - It got a lot of play.

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Ms FORREST - It did, yes. At this stage it's not a causal connection, it's a casual connection.

Dr GERSHWIN - It's a correlation.

Ms FORREST - I'm just wondering about other factors that may cause blue-green algae because we are seeing these blooms in areas where there are no salmon farms. Is it fair to say that it's not just salmon farming that we need to be concerned about here?

Dr GERSHWIN - Absolutely. Blue-green algae are found anywhere where there is basically still water or low flow, where it can stratify, and where there is a heavy nutrient input. Common areas we see blue-green algae are sewage settling ponds or lakes where there is input from communities.

Ms FORREST - Agricultural runoff?

Dr GERSHWIN - It can be agricultural runoff or it can be urban runoff, things like that - anywhere where there is a heavy nutrient input. It's not about the type of nutrients, it's about nutrients.

Ms FORREST - Obviously there is an issue here that is broader than the salmon industry. This committee is looking at the regulatory framework around approving, expanding or changing marine farm plans and the issuing of environmental licences and the like. How do you see the legislation needing to change to deal with some of these concerns, whether it is jellyfish, salps or the blue-green algae, as it is all connected?

Dr GERSHWIN - It's all part of the whole pest dynamic, yes. From my perspective, we know so very little about these pests. We have really kind of ignored them. We really can't make any sort of conclusions about how to manage them without knowing more about them. I really am calling for research. The regulatory framework governing these organisms - how do you govern what you don't understand?

Ms FORREST - What's the best way forward for the salmon industry, which is the focus of our inquiry particularly? It's obviously broader than that, but let's just focus on that. Do you believe changes are needed to the way it's done at the moment? Yes, more research is needed, but more research is needed in lots of areas. In the legislative framework that currently exists there is not a defined process for dealing with this, so what changes do we need to see?

Dr GERSHWIN - I guess, to me it seems really obvious: don't worsen the problem until you understand the problem. Looking back at the regulatory framework it would be: slow down until you understand what the consequences are of charging forward.

Ms FORREST - In saying that, the regulations are there, the EPA is developing some standards; is that where this process needs to be inserted?

Dr GERSHWIN - Yes. Everything I have seen - and I have done quite a bit of looking at pretty much everything I could find - I really don't see anything that is dealing with minimising these problems. I'm looking from a scientific point of view at these pesty things that are getting worse and are projected to get increasingly worse over time, and I am astonished that they are not

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being researched, there is no regulatory framework dealing with 'if this occurs then we do that; let's minimise that so that that doesn't happen'. They are just off the radar and that's what I am saying.

Ms FORREST - In terms of contribution to the development of the standards, maybe this is an opportunity for you to put a submission into that process to identify these areas because the standard is not developed yet.

Dr GERSHWIN - Yes, I am happy to.

CHAIR - Are you aware of a process that is considering research in this space or that there is some in train at the moment or the possibility of that?

Dr GERSHWIN - None. I don't mean I am not aware; I am aware of a lot and as far as I am aware there is none.

Mr FINCH - In the first point you wanted to make, Lisa, you talked about Huon losing 64 per cent because of jellyfish, and Tassal as well. Then you go on to say in your statement to us that there have been losses this year due to jellyfish, but because of industry data secrecy, researchers cannot assess the severity. [Huon] Aquaculture has already let you know there was 64 per cent the previous year. A bit of confusion there.

Dr GERSHWIN - They did not let me know. Make no mistake - that did not come to me. They let the ASX know. It was very public. I learned from the media.

Mr FINCH - Huon themselves would have released that detail.

Dr GERSHWIN - They did, but they were not exactly forthcoming with it - it took about eight months to get a straight answer.

CHAIR - Is it right it was then released as part of their financial reporting to the ASX?

Mr FINCH - Because you get a mention here, of course, in what you released, from Huon aquaculture -

Recent comments made by Dr Lisa-ann Gershwin, a Tasmanian biologist with expertise in jellyfish, are wrong and should be challenged.

I am assuming you challenged that assertion by Huon.

Dr GERSHWIN - I guess we are challenging in both directions. My view is 'show me that data; I can show them what jellyfish do.'. There is a huge body of published literature on how jellyfish do what they do. There is very little data on what they are doing here, other than the occasional time I put a net in the water or somebody from the industry contacts me on the sly and says 'By the way we have had some losses.'.

Mr FINCH - Is this an agree to disagree situation? The statements from Huon on their website strongly suggest it is minuscule and they have been tested federally for metal contaminants and feel confident they are in a safe space.

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Dr GERSHWIN - When it comes to the heavy metals, their report from the February 2019 testing is in there, it is the second attachment and they only tested five fish from one pen in that test. No other tests are public as far as I have been able to see, so I know only of that one test from February 2019 in that they do have arsenic and mercury in the fish. It's in low amounts, but there is arsenic and mercury in the fish. As I said in my opening statement, I am giving them the benefit of the doubt that is their worst pen, not their best pen.

My point is there are heavy metals in the fish and the process of the low oxygen where you guys understand how the hypoxia develops. There is chemical process that takes place where the low oxygen releases heavy metals from the sediments and resuspends them into the water and mobilises them. They get into the food chain by being absorbed into the phytoplankton. With the salps, I believe I have been able to trace a very legitimate pathway of how heavy metals can get into the fish.

Mr FINCH - Your suggestion would be?

Dr GERSHWIN - Somebody needs to research it.

Mr FINCH - More testing and more research?

Dr GERSHWIN - Absolutely.

Mr GAFFNEY - What length of time would you need to do proper research on something like this? If you go to the industry and say 'This will take me 12 years', that may not be well received. For the record, how long do you think proper research on salps would take in Tasmanian waters?

Dr GERSHWIN - It would depend on the question, of course - if you just want to demonstrate, to tag the phytoplankton and follow the tagged metal molecules through the salps to demonstrate that is actually what is happening. There is lots of research demonstrating that salps do have heavy metals in them, and they are eating phytoplankton and, as a matter of fact, the salps are actually sequestering the heavy metals in their own tissues and also in their faecal pellets. It is clear they are getting it from the phytoplankton, because that is the only thing they are eating. If you wanted to put a bow on that and tie it up nice and neatly, you could do that in a day or two. These things go through two generations in a day and they grow 10 per cent of their body length per hour. You could do it in a day.

Mr VALENTINE - What do they look like? Are they segmented?

Dr GERSHWIN - They are kind of. They are funny looking little things. They are little strips of things. They look like machine-gun bullets. You have seen them.

Mr VALENTINE - I have swum in them.

Dr GERSHWIN - Yes. Don't eat them.

Mr VALENTINE - I wondered what they were, but I have seen them.

Mr GAFFNEY - For it to be useful for the industry and for strategic planning, how long would you need to take to research and then come back with some recommendations or something the industry needs to be aware of?

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Dr GERSHWIN - I have to be honest. I have not sat down and thought about what that research project would look like. As you may know, I am between jobs these days so I am not active in experimental research at the moment because I do not have a laboratory. I do not have any funding for fieldwork or anything like that so it would have to be somebody at IMAS. I have no capacity to do it at this point. I have no capacity to attract grants at this point. It would depend on the research team as to what they felt.

Most research projects are one year, two years or three years, depending on the question the research team decides to ask. I do not think it would have to be very long. You would want to tag something and follow it through the process and then you would want to repeat it, so it is repeatable.

Mr VALENTINE - I am interested in the fact the salmon industry might have a different opinion on this, but if they were concerned, wouldn't they be wanting to take immediate action?

Dr GERSHWIN - I would hope so.

Mr VALENTINE - Why do you think they do not believe the science? Is that what you are suggesting?

Dr GERSHWIN - I do not know what they think.

Mr VALENTINE - Have you engaged with them much?

Dr GERSHWIN - I have tried. There is some animosity. They invited me to come and have the show and tell at one of their facilities, and I said, 'Yes, please, that would be lovely', and then they said no. I have written to them numerous times and asked them for information and they either do not write back or they write back and they have some fluffy thing where they do not really answer the question.

Mr VALENTINE - Have you done any research at all, for instance, on the food the salmon are eating, as well as possibly getting the occasional salp that might flowthrough?

Dr GERSHWIN - It is more than occasional. You have seen them. They are not rare.

Mr VALENTINE - I have seen them. I was interested to know whether you had done any research at all for heavy metals on the food side of things.

Dr GERSHWIN - None whatsoever.

Mr VALENTINE - So it couldn't be through the food, you don't think?

Dr GERSHWIN - I hope there would not be heavy metals in the food.

Ms FORREST - I was doing some quick research on Wikipedia about salps.

Dr GERSHWIN - They are in our phylum. They are more closely related to us than to jellyfish.

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Ms FORREST - A lot of fish eat them. If the salmon are being fed and monitored regularly with the live feed monitored to make sure the fish are eating all the food being delivered, my way of thinking is the fish are generally not hungry, so why would they eat them?

Dr GERSHWIN - I do not know exactly what fish think, so I am going to go out on a limb here.

Mr VALENTINE - They do not think very long apparently.

Dr GERSHWIN - No, I think they have tiny little brains and they do not think a lot. I am not trying to be cruel to the fish. I think they are working on an animal brain. I suspect if something goes by in front of them, they just quite naturally gulp. I really don't know. I'm not a fish expert.

Ms FORREST - You say they eat the blue-green algae, which is toxic, so maybe they're doing a great service to us?

Dr GERSHWIN - The salps aren't eating blue-green algae, they're eating other types of algae.

Ms FORREST - Okay, sorry, I misunderstood that bit.

Dr GERSHWIN - We do know that Tasmanian Atlantic salmon are eating salps. Numerous times I've been told by various people from one of the companies that they've got fatal incidents with fish that have guts full of salps. I've given you the reference in that document from Chile, but it happens here too. It's just that they haven't published it here.

Ms FORREST - So if the salps aren't eating the toxic algae, or they're eating other types of algae, why are they toxic?

Dr GERSHWIN - There are many, many kinds of algae, and marine algae fall into two main categories. There are blue-green algae in the marine environment, but the dominant algae that are causing problems for the fish, and certainly the salps are eating, some of them are called diatoms and some of them are called dinoflagellates. Sorry about all the technical terms. The dinoflagellates are often toxic. You've heard of red tides and harmful algal blooms? They are these kinds of creatures. They're usually the dinoflagellates.

Mr VALENTINE - They affect oysters, don't they?

Dr GERSHWIN - Absolutely, yes. That's the paralytic shellfish poisoning and all that kind of stuff. That's right.

Ms FORREST - Do you know whether the companies are monitoring for this toxic food intake of their fish?

Dr GERSHWIN - I don't know if they're monitoring for intake of the fish, but I believe they have a very active algae monitoring program with Gustaaf Hallegraeff at IMAS.

Ms FORREST - We can ask about that anyway. We can ask the company, the industries, about that; that's fine.

Dr GERSHWIN - Yes, but I don't think they're monitoring for salps.

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Mr FINCH - You say here in your submission, Lisa, that presumably TasWater is regularly testing for toxic algae in every waterway statewide. When you say 'presumably', what evidence do you have for that? Have you checked with TasWater to see if they actually do that?

Dr GERSHWIN - No, I haven't, but I can't imagine that TasWater wouldn't be doing a fair bit of monitoring to protect human safety. I'm sure they must be. You guys would know more than I would, but it makes sense to me that they must be, but I don't have knowledge. I've looked but I haven't been able to find anything. I'm sure they must.

CHAIR - Thank you very much for your time and for tabling that document for us to consider. Thank you everyone.

Dr GERSHWIN - Thank you.

THE WITNESS WITHDREW.