

**HANSARD**

**NOVA SCOTIA HOUSE OF ASSEMBLY**

**COMMITTEE**

**ON**

**ECONOMIC DEVELOPMENT**

**Tuesday, September 13, 2016**

**COMMITTEE ROOM**

**Department of Fisheries and Aquaculture  
Re: Aquaculture**

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## **ECONOMIC DEVELOPMENT COMMITTEE**

Mr. Joachim Stroink (Chairman)  
Ms. Suzanne Lohnes-Croft  
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Mr. David Wilton  
Mr. Chuck Porter  
Hon. Pat Dunn  
Mr. John Lohr  
Hon. Sterling Belliveau  
Hon. Denise Peterson-Rafuse

[Hon. Pat Dunn was replaced by Mr. Larry Harrison]

### In Attendance:

Ms. Kim Langille  
Legislative Committee Clerk

Mr. Gordon Hebb  
Chief Legislative Counsel

## **WITNESSES**

### **Department of Fisheries and Aquaculture**

Mr. Kim MacNeil - Deputy Minister  
Mr. Bruce Osborne - Executive Director  
Mr. Bruce Hancock - Director, Aquaculture  
Dr. Roland Cusack - Fish Health Veterinarian



House of Assembly  
Nova Scotia

**HALIFAX, TUESDAY, SEPTEMBER 13, 2016**

**STANDING COMMITTEE ON ECONOMIC DEVELOPMENT**

1:00 P.M.

CHAIRMAN  
Mr. Joachim Stroink

MR. CHAIRMAN: Good afternoon everybody, I'd like to call this meeting to order. This is the Standing Committee on Economic Development. My name is Joachim Stroink, MLA for Halifax Chebucto. I will be your Chair for the day.

The committee will be receiving a presentation from the Department of Fisheries and Aquaculture in Nova Scotia. I ask the committee members, starting at my right with Mr. Lohr, to go around the room and introduce themselves. Then we'll go to the witnesses to introduce themselves.

[The committee members and witnesses introduced themselves.]

MR. CHAIRMAN: Before we get to your presentation, just a reminder to wait for me to acknowledge you before you start speaking, in order that Hansard can keep up to who is speaking so there is no confusion when Hansard comes forward. I will now turn it over to Mr. MacNeil to start with the presentation.

MR. KIM MACNEIL: Good afternoon to all the members of the committee. I have a statement that I'd like to read before I go to the presentation, mindful of the time that was allocated.

Thank you for welcoming us to your meeting today. I want to take a moment to introduce a little further the departmental staff who are with me. As you know, Bruce Osborne, on my far left, is the department's executive director. Bruce has a Bachelor of Science in Biology and a Master's in Marine Management. He has worked in Fisheries and Aquaculture and Economic Development, and has been executive director for the past two years.

Bruce Hancock, on my immediate left, is our Director of Aquaculture. Bruce has a Bachelor of Science in Biology and a Master's in Business Administration. He has over 20 years of experience in the aquaculture industry and has been Director of Aquaculture for almost three years.

On my right is Dr. Roland Cusack, a graduate of the Atlantic Veterinary College, who is also the chief provincial aquatic animal health veterinarian. He has been employed with the department for 24 years, and manages operations and staff at the veterinary pathology lab in Bible Hill.

Again, thank you for inviting us to meet with you. Today's discussion comes at an exciting time for our department and the province. It's no secret to anyone in this room that Nova Scotia is Canada's seafood leader. In 2015 we exported almost \$1.7 billion in seafood to markets around the world. That was a 33 per cent increase over the previous year. We sell more seafood to the world than any other province.

Our traditions are steeped in the fishery. Our economy sees significant benefits because of our ocean advantage - clean, clear water and the ability to sustainably harvest from those waters. We know how to supply global markets with top-quality seafood, and our fish harvesters and seafood-exporting companies are doing it successfully every day. Aquaculture is part of that story; it's another form of seafood production that fits with our history and promises a bright future for our rural communities.

To realize the industry's promise, government has been moving forward carefully and deliberately to create an environment where aquaculture can develop safely and sustainably. Since the release of the independent review of aquaculture regulation in December 2014, we've been making steady progress that is setting the stage for the industry to succeed by developing it in a responsible way. We're moving forward with a progressive set of regulations that are among the most robust in the world. From the start, we have been committed to doing it right, with science-based, independent, and transparent decision making.

As our minister has commented many times, it is a process of continuous improvement when it comes to our approach to regulation. The regulations and approach are not carved in stone and will be improved as required or when new information and science indicates that we should.

As I said, our approach has been thoughtful, careful, and incremental. Over the past year, we've taken a number of steps that have helped to create one of the best approaches to managing the development of aquaculture. They include establishing a regulatory advisory committee made up of community, First Nations, and government representatives; appointing a science advisory committee to identify research priorities; tendering for equipment to help with environmental and fish health monitoring, including a submersible remote-operated vehicle; and establishing a committee chaired by the Nova

Scotia Salmon Association to recommend a workable approach to trace escaped fish back to their origin.

We've appointed an aquaculture administrator for approving lease and licence renewals. We've developed policies to operationalize the lease and licence process. We've appointed a chief aquatic animal health veterinarian. We're participating in training for the Department of Environment compliance staff who will now be responsible for enforcing the new regulations. We're beginning work with the Nova Scotia Veterinary Medical Association to establish criteria for accrediting aquatic animal health clinics. We're advertising for members for the independent aquaculture review board which will be appointed later this year. And not least, we're beginning to accept new applications for cultivated marine plant, suspended shellfish, and trout farming.

We know that aquaculture can be a sustainable rural industry. Our approach is consistent with the goal of the One Nova Scotia Report to sustainably double food exports, including aquaculture. The independent review panel supported development and provided the road map we have followed and improved upon with our new regulations for leases and licences and aquaculture management. Our regulations went from a few pages to now more than 40 pages. Is that tough on industry? They would probably say yes. But it also delivers exactly what they asked for: clarity.

Tom Smith, the executive director of the Aquaculture Association of Nova Scotia made that point when we announced our commitment to aquaculture growth this past July. He said then that the new regulations were good for industry because they know now exactly what was expected of them in order to develop. The new approach to regulation also delivers what the public has told us they want: transparency, and a way for them to be engaged in the process of approving new and existing leases and licences.

I want to acknowledge the hard work being done by staff as we move to change the way aquaculture is being regulated in Nova Scotia. There have been a lot of long hours put in by the folks at this table and by the staff throughout the department.

Why are we doing this? When we look around to other parts of the world where aquaculture is growing, the success stories are plain to see. In places like New Brunswick, Newfoundland and Labrador, Maine, and Norway, we see communities that are benefiting from the jobs that aquaculture development brings. The aquaculture industry has the potential to create the same kind of economic growth in communities here in Nova Scotia.

It's doing that right now as we speak. There's great potential for those benefits to increase and to help secure the way of life enjoyed in our coastal and rural communities. We will get there by continuing to focus on our deliberate, thoughtful approach to development that is focused on sound regulation and evidence-based decision making. We are ready to engage companies and Nova Scotians in our new process as part of our careful and deliberate approach to taking aquaculture development to the next level.

I now have a brief PowerPoint presentation to provide the members with some additional background.

Let's have a look at the global picture of aquaculture. There's a huge demand for food world-wide. Global population growth is estimated to go from 7 billion to 9 billion by 2050, and we'll see a growth of the middle class from 2 billion to 4 billion by the year 2030. In Asia, by 2030, their share of the global middle class will be 64 per cent, double what it was in 2014, and the EU and North American middle class at the same time will shrink to 22 per cent. There are opportunities more than just in China; we're talking about Indonesia, Thailand, and Malaysia.

With that growing population though, there's an issue here: 87 per cent of the wild fishery is over-exploited or fully exploited already. The wild fishery just won't meet the demand. An interesting little fact here is that the earth's surface is 70 per cent water and 30 per cent land, and the global food supply currently comes 98 per cent from the land and 2 per cent from the water. So we think there's an opportunity here.

First, let's have a look at animal protein production. Pork, poultry, and wild fish are the big producers. In 2013, protein production for farmed fish exceeded the production of beef. Farmed fish is the fastest growing segment of animal protein production and 50 per cent of seafood consumed by humans is farmed. We expect the growth of aquaculture to increase by 6 per cent per year for the foreseeable future.

Let's have a look at how we compare to other provinces. It might be a little hard to see those colours but it's in the millions of dollars on the left; B.C. is just over \$500 million per year in aquaculture production, and Newfoundland and Labrador around \$200 million. To note, in 2004, Newfoundland and Labrador was at \$20 million and by 2013 they were close to \$200 million.

There are opportunities to be realized in Nova Scotia. We can certainly go quite a piece from around the \$56 million that we are now, just ahead of Prince Edward Island.

Let's have a look at Nova Scotia aquaculture. This graph - if you want to see it in better detail it is on our website, but it's just to give you an idea. In Nova Scotia we have a farm-gate value for aquaculture of \$55.98 million; over 670 people are directly employed in the industry; we have a diverse number of species; and we are both land-based and ocean-based farms. Incidentally, Nova Scotia has 27 licences for on-land farming.

The other part of this that we forget about a lot of times is that aquaculture in Nova Scotia is more than just finfish. Hopefully when we're answering some questions we can bring in some discussion around opportunities around things other than finfish.

For Nova Scotia aquaculture we do have some distinct advantages: a diverse coastline, 7,400 kilometres; an extensive infrastructure which is already there - wharves, processing plants, and a transportation network, and we see the aquaculture industry

working with the marine sector to improve some of that infrastructure; we have easy access to markets in the U.S., Europe, and Asia; we are a world-class marine/oceans research hub, and we hope to take full advantage of that as we move this sector forward; and we are export-focused, we have a history of growing and developing export markets.

So what's it going to take to grow the sector? We see three main requirements: public trust and investor confidence, access to productive sites, and industry support. Now we have some bullets under each of those but I'd like to deal with them separately.

The first requirement under public trust and investor confidence is the new regulatory framework. We have amendments to the Fisheries and Coastal Resources Act, as I briefly touched on in my introduction, and we have two new sets of regulations: the Aquaculture Management Regulations and Aquaculture Licence and Lease Regulations. We've developed a considerable amount of policy already and we're continuing to develop policy to support those new regulations. We're also in the process of establishing an Aquaculture Review Board. We're also looking at a new compliance and enforcement model which has now moved to the Department of Environment and we have over 55 trained, well-equipped conservation officers for aquaculture enforcement - we had about four previously. We now also have the ability to issue summary offence tickets.

The second pillar for public trust and investor confidence, there's a second point, is around communications and stakeholder engagement. There is an 18-month independent public review that went right across the province, seeking input from the public on aquaculture. We've also struck a Regulatory Advisory Committee that the minister set up that includes just a sampling of the folks: Chief Terrance Paul from Membertou; Dr. David Gray, Dean at the Agricultural Campus at Dalhousie; Raymond Plourde from the Ecology Action Centre; Carl Purcell from the Nova Scotia Salmon Association; Edgar Samson with Premium Seafoods in Arichat; and Tom Smith, the Executive Director of the Nova Scotia Aquaculture Association.

We're looking to engage other regulators and other stakeholders as well, including the Atlantic Salmon Federation and the CFIA - the federal government. We're increasing transparency through the department's website and we've made significant changes to that website, and we will continue to change that website as required.

We're also involved with the First Nations around engagements and consultations. We've established a consultation table for aquaculture with the KMKNO, which is a Mi'kmaq rights initiative. We have extensive engagement in consultation of the regulations with the Mi'kmaq and in fact, as I mentioned, Chief Paul co-chairs the Regulatory Advisory Committee.

The third point under public trust and investor confidence is science-based decision making. We're funding research projects to address aquaculture interactions with the environment. We've created a five-person science advisory panel which includes the Chair of Health Management at the Atlantic Veterinary College, marine ecologists from Cape

Breton University, and the Director of Aquaculture Science with DFO in Ottawa. We will be making decisions based on regulated factors to be considered, which is taken right out of the regulations.

Let's have a look at the second pillar: access to productive sites. We need to maximize production from our existing sites. Currently we have licences issued for 35 finfish sites, only 10 of them are active; 216 shellfish sites, with 124 being active; and then land-based sites that include hatcheries, salmon-rearing, halibut-rearing, and striped bass, and we have 27 licences issued with 20 of them being active.

The new regulatory framework allows us to reallocate resources and licences. Sites with zero production are required to submit development plans, and sites with limited production will be looked at as well. I want to emphasize that we are working with the operators. We want to see these sites developed, and we're encouraging the operators to maximize the use of their sites.

New marine sites: we're going to continue to build public and stakeholder confidence in the new regulatory framework. We're going to do and are currently doing advanced planning with the municipalities, and we will continue to collect biophysical data that helps support predictive modelling so we can get an idea of what an area can sustain. We're going to begin testing a new application process with shellfish and trout applications.

The third pillar is industry supports. Let's take a look at business development tools. On the financial side, we're looking at capital investments for the industry, deferred loan payments for shellfish, investment tax credits, and CEDIFs. There is working capital already available and access to loans for smolt and seed, and Nova Scotia Business Inc. has a payroll rebate program. There's also an investor attraction/investment readiness component through NSBI as well as the Department of Fisheries and Aquaculture.

NSBI has market intelligence and promotional intelligence. Training and labour development - under Labour and Advanced Education - is looking at the Workplace Innovation and Productivity Skills Initiative, the Graduate to Opportunity program, and the START program. What we're hoping to do is work with the appropriate departments and agencies to ensure that the benefits of these programs can be utilized for the maximum benefit of the aquaculture sector.

Let's have a look at supporting industry through technical support. We have Aquatic Animal Health Services, which Dr. Cusack heads up. We want to ensure the overall health of the industry, so we have three Ph.D.s who work in that group as well as two biologists. To help with site planning, we have data collection and analysis, we provide technical advice, and we're currently doing oceanographic modelling. We also have in-house expertise and can get assistance across government with GIS.



Industry supports - again, targeted research and development. We're coordinating provincial R&D activities, and we're looking at a departmental R&D fund. R&D was identified as a priority by the independent review panel. Again, we feel that coordination and focus of R&D opportunities is important. There is federal, provincial, and academic R&D - there's research taking place out there already. We want to minimize duplication and maximize research.

That, Mr. Chairman, is the end of my presentation.

MR. CHAIRMAN: Thank you very much for that presentation. We'll start over here with Ms. Lohnes-Croft and then go around the room.

MS. SUZANNE LOHNES-CROFT: Thank you for your presentation. Mr. MacNeil, you mentioned several times that your department has become more transparent and takes a more rigorous approach to regulating aquaculture here in Nova Scotia. Can you expand on that and tell me where you see changes and improvements?

MR. CHAIRMAN: Mr. MacNeil. (Interruption) Mr. Hancock.

MR. BRUCE HANCOCK: There are multiple opportunities for participation in the new regulatory process. There are basically two streams of decision making. There are those that we call administrative decisions, which would include things like renewals for existing sites, or amendments to existing sites, or assignments. In those processes before, it was something that was done in-house, and there was no notification to the public. In our new system, it's posted on our web page for 30 days, and the public is provided with an opportunity to provide comments on those administrative decisions.

If we're looking at things like new sites it's a much more involved process. With the new site application process you have to first apply for an option to pursue a site. An application is made to the department and it's a fairly simple application form. All that does is give you the ability, the right to look for a site in a given location.

If that option is granted, then that is immediately put on our web page and the public is notified. This was a complaint in the old system where the public felt they were the last people to know when an application was made. Now, even in those very early stages when they are looking, they'll have a chance to know what's going on in their area.

The other piece of that option period, so when that's in effect, not only is the public notified but there is now a regulated requirement for the proponent to hold at least a minimum of one scoping meeting, a public meeting that has to be advertised. Also, they have to produce a scoping document that talks about not only the results of that public meeting but also any other activities they've engaged in with key stakeholders in the area.

Those are minimum requirements. We can add additional requirements on that. Of course you have to realize there's a different scale in operations; you can have small, bottom-cultivated proposals versus a large finfish one, so you need to have an element of flexibility. In all instances there's a requirement to do scoping and to hold a minimum of one public meeting. Again, all this has been made public and is available on the site.

If and when an application is made after that option period ends then there's an internal review that's done on the application. It is sent out to our network partners and when the information comes back from that it is then handed to this independent review board. When that is done, it is regulated, the time periods. They have to then make notification that there will be a more formal public meeting held on the application. The advance notice is no less than 60 days and no more than 90 days.

Information about the application would be put on our web page and at that more formal application hearing or review hearing, the public has an opportunity to comment. Also, if you can show that you are significantly and directly affected by the proposal, you can apply to be an intervenor. As an intervenor you have the same status as the applicant and the province through that process and will have access to all documentation that is being sent back and forth.

Once the decisions are made, both the administrative decisions that we're making right now and also when this review board is struck and they start making decisions, those decisions are posted online. That's another really big change in terms of the transparency. Before, we would notify if it was a yes or a no, but now there is an explained decision that touches on those factors that must be considered in making an application.

The other thing I can say is that we've made significant changes to our web page. For one thing, it's easier to find now, so that's a positive part. There's a lot of really good information there and we're building on that continually, so this is very much a work in progress. As we go along, you're going to see more and more information made available. We have a really interesting mapping tool right now that's on our web page so the public can go on and there's a map of Nova Scotia - there's a little snippet of it there in the presentation. You can click on each one of those individual sites, it will say who the licence holder is, the tenure of the lease, the size of the lease, the coordinates for the lease, the species that it is licensed for.

The part that is really going to be interesting, and you'll see that very shortly, is that you'll be able to click on there and instantly get the environmental monitoring results for that site and also back documents, the lease and licence documents will be made available on the site. As the written decisions are made on that site over time, they'll be posted. You will be able to click on that site and get the complete history.

I think that's really going to be a big step forward, and I would add that it would certainly be a first in Canada for having that level of detail on the web page.

MR. BRUCE OSBORNE: I just wanted to expand on one point that Mr. Hancock made, and that's around the factors to be considered when decisions are being made by the administrator or by the independent panel. I think that's a significant area where the transparency begins in the new system that really wasn't there in the old system. What I mean by that is, in the old system it wasn't necessarily always clear what factors were being considered by the decision makers, what information was being reviewed, what was relevant information to put into the review process.

In the new regulations, actually on Page 2, it lists eight factors that must be considered. Those are the areas where the information has to be submitted. The review is based on that information that's received by those decision makers. So it's a lot clearer to the public, to community members, and to the companies the basis on which the decisions are ultimately made. That's a step forward that we didn't have before in the old regulations.

MR. CHAIRMAN: Mr. Lohr.

MR. JOHN LOHR: Thank you for the presentation. My question goes immediately to one of the slides in your presentation, I believe on Page 3, where you showed provincial aquaculture production values. If I look at that, I see in the year 2000, Nova Scotia's industry was triple the size of Newfoundland and Labrador's, and in the year 2013, Newfoundland and Labrador is showing as being nearly four times as large.

I'm just wondering two things. First, I'm wondering what accounts for that shift. I know Newfoundland and Labrador has a lot more ice in their harbour, so in theory we should be a better province with more ice-free harbours, for aquaculture I would think. But maybe that doesn't matter. Second, 2013 is already three years back - I'm wondering if you could comment on where that trend is for both provinces now. Even if you don't have exact numbers, I would be interested in that.

MR. KIM MACNEIL: I'll kick this off. The geography in Newfoundland and Labrador is completely different than the geography that we have in Nova Scotia. Most of the coastline in Nova Scotia is settled and it's highly utilized, and that isn't the case especially on the south coast of Newfoundland and Labrador, where a lot of this aquaculture takes place.

Quite frankly, the Government of Newfoundland and Labrador made a concerted effort through regulation and government policy to increase the size of aquaculture in that province, not unlike what we're attempting to do here or what we will do. They are now seeing the benefits of those efforts, but it was a concerted effort. They put a regulatory regime in place, and they had financial supports in place. The government supported aquaculture, and as a result under those conditions, and quite frankly remote sites, they were able to succeed I think even beyond their expectations.

I'm not sure if someone else has a comment.

DR. ROLAND CUSACK: Again, I think we should look to some of the geography related to developing aquaculture in Nova Scotia versus other places in the world. We have great opportunity here in Nova Scotia from a biophysical standpoint to grow aquaculture in the Province of Nova Scotia. But it won't be salmon aquaculture, which accounts for the large proportion of those statistics in Newfoundland and Labrador, and New Brunswick.

The north coast of Nova Scotia in the Gulf of St. Lawrence area ices and freezes, and has temperatures year after year that would not be suitable for salmon farming. Those areas of the province around the Gulf coast of Nova Scotia - including the Gulf coast of Cape Breton - are really off-limits to salmon farming in Nova Scotia. It's similar to Newfoundland and Labrador; large parts of their coastal community.

The advantages we have in Nova Scotia are those key areas along mostly the mainland of Nova Scotia on the Atlantic side south of the causeway coming around through to the Bay of Fundy. Those would be the areas. As the deputy has indicated, there are large communities in there and we have to look at these issues relative to the new development, so the potential to grow is there. Newfoundland and Labrador again has had some significant supports in place to attract new investment. In fact they announced this year some quite significant new potential investments coming into, I think we could easily say, more than double those numbers that we're seeing on the screen today.

MR. LOHR: I guess I did ask the second part of that question already - where are the numbers relative to the two provinces today? I'm also curious why there was a drop in New Brunswick and in B.C. in that chart - I'm just curious about that. What happened there?

MR. HANCOCK: We'll start with the Newfoundland and Labrador production, and it's something that we've seen in Nova Scotia in the past too. As the industry is developing, you'll see a large amount in a given year class and then in the following year you might see production go down. What we've seen in Newfoundland and Labrador is the year after 2013, there was a reduction in the number of farm-gate value - I think it went down to about \$60 million a year - then for 2015 it's up over \$160 million, so it's gone back up. We saw this a lot in Nova Scotia - the bouncing up and down with the year classes going through.

In terms of New Brunswick, in the early 2000s there were disease issues on their finfish farms. One of the mechanisms they began to employ to control that was a system called "bay management." What that essentially means is that it takes approximately two years in the ocean to grow a salmon to market size and they don't allow the mixing of the year classes in the same sort of geographic region. Also, there were breaks that were given - fallow periods between a cycle in a given bay - and that really took a big decrease out of the area that was available to farm. They just were not farming it as intensively as they did before.

Interesting enough, all the companies that are operating in New Brunswick, Newfoundland and Labrador, and actually Nova Scotia are one and the same. These are larger companies and they operate in multi-jurisdictions, so you also see scenarios where you'll see extensive production in one province in one year, depending on where they stock their fish, and the corresponding next province might be lower, and then the year after that it might change around. So the bay management system is not just treated that way within the province but also within the entire region.

In B.C., quite frankly, their issues in terms of expansion have been largely getting access to new sites; it has been a challenge. There has been some significant regulatory change in B.C. over the last seven years, I would say, which really has led to very little in the way of development.

MR. OSBORNE: I just want to add one quick point there. As Dr. Cusack pointed out, Newfoundland and Labrador is still proceeding on a plan to continue growth in their industry and New Brunswick has talked about targets of doubling the size of the aquaculture industry in New Brunswick, so there are still plans even within the new farming methodologies and regulations there - they're still looking for increased growth and opportunity.

MR. CHAIRMAN: Mr. Belliveau.

HON. STERLING BELLIVEAU: Thank you for the presentation. Mr. MacNeil, I was thinking early in your presentation, the English language is something to marvel at. I'm making reference to your early comments about the review that took place. You suggested there was a review that was finalized in 2014, but yet you didn't call it by name - I understand it as the Doelle-Lahey report. In your presentation, you said your department was moving to develop it. Now, in fairness, if I was Mr. Joe Public, I would say the embrace of that report is in its entirety, so I think my questions are going to be around that particular scenario.

Also in your presentation, you talked about the department opening up for new applications. You talked about shellfish and trout, but yet there was no mention of open-net salmon and we're kind of skirting all around the question.

Also in your presentation you talked about the high values of all the different species and I respect that but yet there was no breakdown of species by species, whether it is shellfish, trout, or whatever - finfish - making reference to how that value was achieved.

What I'm trying to get to here, Doelle-Lahey talked about extensive consultations with Nova Scotians and they talked about a social licence. In one of your graphs you - and I ask if the Chair could put that up there - talk about dormant sites. To me there's a part that's missing here that Doelle-Lahey went to great effort to emphasize that the public, communities, need to be engaged in these thorough discussions and I didn't see that in your presentation.

The dormant site basically captures my question. There's a number of sites that have not been participating as we speak and the public raised the questions, do we get an opportunity to engage in that when those sites are being renewed and the process needs to be updated? This is what Doelle-Lahey points out very clearly. To me that's my first question, and I look for the strength as the department adopts Doelle-Lahey and moves towards that process.

MR. KIM MACNEIL: There's a lot to that question, Mr. Belliveau.

MR. CHAIRMAN: We have about an hour.

MR. KIM MACNEIL: Okay, we could use it up on that one, I think, and you really could. There's a lot of different things that are going on here and I'll try to respond to what I can and I know the folks here at the table with me will assist as required.

There has been a lot of consultation. As you know, the Doelle-Lahey, or the independent report that we refer to it as, spent a lot of time going around the province collecting information and we certainly utilized the majority of that report when we developed our regulations. But there's more going on there than Doelle-Lahey as well.

There's the advisory committee that has been struck since Doelle-Lahey and I would like, in fairness - I mentioned some of them - I think it's appropriate that I refer to some of the folks who are on this regulatory review panel. So it's Chief Terrance Paul, Chief of Membertou; Bernie Berry, Coldwater Lobster Association in Yarmouth; Paul Budreski, Aqua Delights Seafood Limited - he's from Halifax; Chris Clarke, the Mayor of Queens Municipality; Lisa Dahr, who is with the Tourism Industry Association of Nova Scotia; Dr. David Gray, Dalhousie University; Nell Halse with Cooke Aquaculture; Bruce Morrison, who is the Warden of Victoria County; Raymond Plourde, Ecology Action Centre; Carl Purcell, the Salmon Association; Lloyd Robicheau who is a lobster harvester in Fishing Area 32; Edgar Samson who runs Premium Seafoods; and Tom Smith, the Aquaculture Association.

We are consulting with them in addition to the Doelle-Lahey report, for information. We've also struck a science committee that I mentioned before and we also incorporated comments on the actual administrative processes internally to the department, based on comments from the Auditor General. So we really feel there has been a lot of emphasis on that independent report and it was a report that was exceptionally well done. There's a lot of other things that go into the making of regulations and I just touched on some of them there.

Some other points around the Doelle-Lahey is that the ministerial discretion in that, based on what they said - and these are some of the highlights that they came out with - has been considerably reduced in the new regulatory framework with the inclusion of the decision criteria, the described processes, and the role of the administrator. A lot of the political uncertainty that was there before is now gone.

As well, we could talk about some other things, but I feel that the government has gone beyond the Doelle-Lahey report. They recommended that we have an administrator make these final decisions on where these aquaculture sites are going to be. We're setting up an independent panel - not just one person, not associated with the minister - that will do an independent look at these sites and will make a decision based on science. That's very difficult to do sometimes but we feel - and that's what we're talking about here today - the decisions will be science-based, based on good science. We're putting a significant amount of provincial money, taxpayer money, into that good science to assure people that where there were issues before, we're able to confirm or prove those accusations, I guess in some cases, if they're true or if they're not. The minister is on record as saying we will utilize that science in the regulations where required.

MR. BELLIVEAU: Just a quick follow-up because there are so many responses there. Doelle-Lahey talked about classifications of particular sites. What Dr. Cusack said to me was the same thing; this is what hasn't developed. Doelle-Lahey clearly spoke about there having to be a classification. There are ways of determining where sites can be established and where not, and that has not been achieved. Again, it's wordsmithing. It sounds like it may happen, but it's not the reality of the world we live in.

MR. MACNEIL: I refer to Mr. Hancock on this. This was done with a lot of thought and a lot of input from our advisory committee and from staff and, in fact, from Doelle-Lahey - we certainly reviewed a lot of these options with them. But I would like Mr. Hancock to explain the reason why we went from that colour scheme which was essentially for finfish and finfish only, to a more robust and what we feel is ultimately a better scenario in how we select those sites.

MR. HANCOCK: Maybe to begin with, Mr. Belliveau, I'll just answer your question about the review for sites that are inactive. I think you had asked what opportunity people would have to comment on one of those.

There would actually be two opportunities for the public to comment on a site that would be reallocated. If a site is cancelled or revoked by the province, then under our new regulations, they'll have to go through what's called a performance review. That's when our staff gets the opportunity to take a look at that site and determine whether it would meet the new criteria that we have, the eight factors that must be considered. If the site really looks like it would not meet those criteria or is not consistent with our policy that we have in place, then the site will be gone. In the past, those sites - that's why we have so many that are out there - just sat in people's hands, and they were not taken back. This will be an opportunity to look at those sites.

That performance review is considered an administrative decision, so it would be posted on our web page, and there will be a 30-day period for comments. Once that's done, that is now put in our registry. Assuming that it was deemed, in our opinion and after public comment, to be a site that could still be reallocated, it sits in the registry and then we'll do a competitive call for applicants. Because the site has already gone through both its initial

process when it was approved and our review, then an applicant applying for it will not have to go through a process that's as extensive as if you were applying for a new site. The caveat to that is that it has to be for the exact same activity that it was originally approved for. So if it was approved to do mussels, you can't turn around and grow salmon on it.

We do a competitive call for proposals. We have to set the criteria for what we're looking for in those proposals. The successful applicant then puts in an application form to us. That still involves an administrative decision so even at that point, whoever the applicant is who won the right to apply for it, that would be reviewed by our staff and it would then be put up on our web page for an opportunity to comment.

There's a lot of opportunity for both notification to the public and for the ability to comment. I would point out that this ability to be able to have a site go into a registry or be able to move it but also make the process transparent, was a recommendation from the independent report.

On to the other issue about the zoning. The independent report was very clear that you did not have to have the zoning in place before you started accepting applications for aquaculture. The zoning was a recommended procedure that could be a form of advance planning so that the upfront work was done in advance, in terms of determining good areas from bad areas, with the idea being that it could accelerate the development process when somebody put an application in, or preclude them from applying for a certain area.

What we've done with our regulations is we've built them in a way that allows for multiple stages for us to be able to set policy on where we want to develop aquaculture or where we don't. There's the power in the Act for the minister, with approval from Executive Council, to proclaim an area as an aquaculture development area after doing extensive consultations and review. He can also have an area excluded from aquaculture development. That's a power that's in the Act right now.

The other part we have, if you remember I talked about that, the first process in getting a site is applying for an option. The option is the part where the minister has some discretionary power to make a determination whether they are going to accept the option or not. It's the policy piece. It's at that point where we make the determination if this proposed operation is consistent with the policy that we have for developing aquaculture.

So the point of the red, yellow, and green, we have the ability and, in fact, are going out and doing work right now to identify where the opportunities are, identify where the constraints are. That will lead into the policy we develop for accepting options.

As the deputy pointed out, the problem with the Doelle-Lahey report quite frankly was that it was really a paper that was totally focused on finfish. The reality is we grow many species in this province and although finfish tend to dominate the discussion, if you were a resident on the North Shore or on the Bras d'Or Lakes, you'd be actually more interested in what's going on with shellfish and would have concerns about shellfish



development too. It's important that your policy is broad enough so that it encompasses all the aquaculture activities and not just one.

The power in our legislation and regulations is there to use that tool, if we wished, but I would also stress that the degree of scrutiny they were calling for in the Doelle-Lahey report is met with every application that comes in in an area that's not classified.

MR. OSBORNE: Just to pick up on a point that Mr. Hancock made, from a practical point of view the independent panel recommended that from a finfish perspective. As Mr. Hancock mentioned, we farm a number of species in the province so it could be real challenging because you'd have for the same area perhaps many different colours, depending on what species. It could be one colour for oysters, a different colour for mussels, and a different colour for trout. If you try to apply that across all of the species we grow in Nova Scotia, it may actually just add more confusion for everybody than actually clarifying things. That's why we're going with the approach that Mr. Hancock described as well.

MR. CHAIRMAN: The honourable member for Cape Breton Centre.

MR. DAVID WILTON: In terms of the new regulations, why has it taken so long to implement the new regulations? When do you think you'll start seeing some growth in the industry?

MR. CHAIRMAN: Who wants to take that question? Mr. Osborne, do you want to take that question?

MR. OSBORNE: What's taking so long - the point has been made a couple of times during the presentation and in previous answers that it's key that we build stakeholder-public trust and investor confidence in the industry. We're coming out of a time when perhaps we need to rebuild both. We see this as an opportunity to do it differently and do it right, so we are putting the steps in place incrementally, putting all the pieces together that we need so that we can move forward in a way that we get to where we want to go and not go backwards again.

There have been a number of backwards steps for aquaculture development in Nova Scotia, and we've put a lot of time, effort, and resources so far into the new approach that we're taking. It's important that we get it right so that we don't go backwards. As we do that, as we put the building blocks in place - the regulations, the amendments to the Act, establishing committees that we need to provide us with the independent advice, to build the science which, as has been talked about, will be the foundation upon which decisions are made - we need to put all those pieces in place so that we can move forward in a progressive fashion and try to avoid the missteps perhaps that have been evident in the past.

We are moving forward. As has been already stated, we are accepting applications for certain activities now, and we anticipate moving forward. There certainly is interest. Municipalities are expressing an interest in seeing the industry grow in their areas from an economic development perspective. Along with the things that have been talked about here, there is a lot of other work going on collaboratively. For example, with municipalities, to do some advanced planning with them so they can understand and we can understand what the possibilities are in those areas.

Those efforts will not only be helpful in understanding what could be developed there in terms of what species, but also will pay off when proposals come forward in those areas - the more information that is generated from the preplanning should facilitate and make the review process a lot easier. We are making progress. It's not necessarily always evident. We do have some interest since we've opened.

I'll leave it to Mr. Hancock to talk about those.

MR. HANCOCK: Just following up on the interest, we made an announcement on July 6<sup>th</sup> that we were beginning to accept applications for shellfish, marine plants, and trout.

Actually, that reminds me that I think there was a piece to Mr. Belliveau's questions that we might have missed. That was, what happened to salmon? I think this is a really good example of the incremental approach and making sure that we get everything right. There is a committee that's still under way now examining how to put a system in place so that you can trace escaped salmon back to their place of origin. This is a big issue particularly for people who are looking at the restoration of Atlantic salmon stocks. That's an example of one of the pieces, and there's a few other things that we want to finalize that would be directly related to salmon before we proceed with that.

With respect to the other species, however, we've had at least nine expressions of interest. What's really encouraging about that is, five of those are from existing operators, but four are from brand-new entrants. That's just from July 6<sup>th</sup> to now, and that's translated into three applications for options that are now with the office. That's aside from the interest that we know of just anecdotally from people that we meet who are just testing the waters to see what's happening.

MR. WILTON: In the future, I think we all know where we are in the province - I think \$400 million a year is the figure that I've heard. Is there a lot of growth that can be taken from this point on with these new regulations? How do you see the new regulations affecting us in the future to grow the industry? We all know that we were second to Saskatchewan only five years ago from previous governments who let this industry go by the side. I'd love to know where you see that coming in the future.

MR. HANCOCK: We can toss numbers around back and forth all day long. I think the message I have heard loud and clear from industry, because ultimately if we want this industry to grow it's going to be about private investment, right? They need to have

confidence that they can come into this jurisdiction and that there will be a predictable process to get a licence. That doesn't mean it's automatic to get a licence, it's just that the process is understood and it's predictable.

They need to know there are fair rules to play by. So this is about creating the right environment for growth. We're fairly confident that we've got the right circumstances here and the deputy presented that in the slide presentation, in terms of the biophysical attributes we have, the infrastructure, all those things that are there. It's so important that we have a very clear set of rules for people to play by, to operate by in the province.

I think the other part is you can't underscore how important it is that we have existing operators being successful and making money. I think that's what's going to ultimately drive the growth in this business. So if the process here is predictable, if they see there are people here who have businesses that are sustainable in all forms - that includes making money - that's what is going to drive people here.

On that end we talked a lot about the new regulations and the importance there. The other part where there's a very big investment from the province right now is in the R&D. That is so important not only to answer some of those interaction questions that we have about the industry growing but also about some of those challenges that industry is having, whether it's biological challenges, whether it's about a new innovation. On top of that we have a lot of experienced staff, professionals, biologists, our veterinarians, who are working with industry to solve any problems they might have and to try to grow the industry.

I don't want people to think the focus is all about new sites and new people coming in, there's a huge amount of effort right now and there has been, quite frankly, since I've been in this job, on trying to work with existing operators to get them to reach their full capacity. I think that's really important.

In terms of numbers, it is hard to predict. You can do an exercise where we can look at the map and start putting imaginary farms in each one of those bays, and the sky is the limit in terms of that, but we all work in the reality where we know that there are other users who are in these areas and it's important that we do this in a very incremental way and not all parts of the province are going to be good for doing all types of aquaculture.

MR. CHAIRMAN: Go ahead, Mr. Wilton, real quick.

MR. WILTON: I'm just wondering throughout the world how big this industry really is and can you see Nova Scotia coming up to those figures, like Norway, up to the billions of dollars, could you see Nova Scotia doing that with these regulations that are new regulations put in place?

MR. HANCOCK: That's a great question. Norway is a very special case and they have ideal conditions for growing salmon in their area. I can't picture under the current technology that we use and the methods that we use, us being a Norway. However, we can just look at our neighbouring provinces, look at the State of Maine and actually some of the other states on the Eastern Seaboard, so there's significant opportunity for growth in Nova Scotia. I think that's sort of where I set my benchmark.

MR. CHAIRMAN: Mr. Harrison.

MR. LARRY HARRISON: Thank you gentlemen for being here. I just want to go back to salmon for a minute. My understanding is that there is a freeze on salmon applications. Could you explain why that is?

MR. CHAIRMAN: Who wants to take that on? Mr. Hancock.

MR. HANCOCK: As I mentioned before in my answer, it is certainly something we are preparing for. It's just that there are a couple of regulatory pieces that we want to have in place before we proceed with salmon applications. I mentioned the one about the traceability so I think it's really important. There's a lot of attention paid to salmon farming and I think people would feel more comfortable if we have all the pieces in place before we proceed.

MR. HARRISON: How long do you think it might take for those pieces to be in place?

MR. HANCOCK: You know what . . .

MR. HARRISON: That's a hard question, isn't it? (Laughter)

MR. OSBORNE: I would just add to that that it's a bit hard. On that particular piece, which is work on traceability, it is committee-driven work. It is co-chaired by the Nova Scotia Salmon Association member Carl Purcell, so it's hard for us to - the work will be done, I guess, when the committee comes forward with their final recommendations and that they are satisfied, at least that part of the work that is deleted for salmon.

We really can't dictate to the committee, I guess, when their work is done. We really need to give them the time and the opportunity to have those discussions. I would say it's an interesting committee in that it has people who used to yell across the room at each other on these issues now in the room working on how their respective interests can be resolved and factored in. I think from what I'm hearing so far, the progress has been tremendous within that committee. But we do have to respect the committee and give them the time they need to make their deliberations and come to their final conclusions, so we can't really give you hard and fast timelines on that.

MR. HARRISON: The regulatory parameters, are they going to be the same for salmon as they are for other species?

MR. KIM MACNEIL: Could we get some clarity on that?

MR. HARRISON: The parameters that are being used now to approve applications, will they be the same for salmon as they are now for other species?

MR. OSBORNE: I think you're referring to the factors to be considered.

MR. HARRISON: Yes.

MR. OSBORNE: I mentioned it before, they are on Page 2 in the regulations. I'll just quickly run through to give an idea of what they are. The first one is - these are factors in making decisions related to marine aquaculture sites, so ones that are in the ocean. The review board or the administrator must take into account the following factors: the optimum use of marine resources; the contribution of the proposed operation to community and provincial economic development; to consider fisheries activities in the public waters surrounding the proposed aquaculture operation.

They must also consider the oceanographic and biophysical characteristics of the public waters surrounding the proposed aquaculture operation. They must consider the other users of the public waters surrounding the proposed aquaculture operation. The public right of navigation must be considered, the sustainability of wild salmon must also be considered. The eighth and final one is the number and productivity of other aquaculture sites in public waters surrounding the proposed operations.

They are the same for all proposed sites in the marine environment.

MR. HANCOCK: If I can just add to that, given what Mr. Osborne just read, each application would be looked at in a different context, so obviously the impact on wild salmon would be very different than if you were proposing a salmon farm versus, say, a mussel farm. The broad factors are the same.

MR. CHAIRMAN: Mr. Belliveau.

MR. BELLIVEAU: Mr. MacNeil, you talked earlier, you used the words to talk about the Doelle-Lahey report, you actually were quoted - I have you down here as saying that you actually feel that your department has gone beyond Doelle-Lahey.

I have some concerns about that comment because I think the Doelle-Lahey report talked about the social licence and the citizen engagement, so I'll leave that for the public to debate because time is limited here. I want to move on to another question that Doelle-Lahey identified, it was enforcement. Actually the Auditor General talked about enforcement or the lack of the capacity. In your earlier statement you said there were four

enforcement officers. It is my understanding that now it is under the Environment Department and is going to be supervised through that.

We know, or my understanding is - and this is my question for the general public - there are a number of different departments, like the Departments of Natural Resources, Environment, Fisheries and Aquaculture, and Agriculture, and inshore fisheries are all going to be utilizing these enforcement officers. Are you confident now, with the realignment or restructuring of these enforcement officers under Environment and Fisheries and Oceans that aquaculture, the wild fisheries, inshore fisheries, will actually be strengthened?

MR. KIM MACNEIL: Yes, I'm very confident that it will be strengthened. We went from four inspectors, and anyone who has ever participated in any type of group like that realizes there are efficiencies in numbers. We went from four who were really looking at one area, the fishery, and we've gone to looking at more than 50 conservation officers who, I'd arguably say, are better trained, who are certainly better equipped, and we've helped with boats. They also have vehicles, appropriate ATVs, and they also carry side arms and have a full breadth of knowledge when it comes to enforcement.

We certainly feel good, I think from my departmental perspective, but I think from a personal perspective and knowing the people who left their department and went to the Department of Environment to be with the former DNR conservation officers, I feel good on a personal level that we're giving them the best possible training, both from a personal safety perspective as well as from a regulatory enforcement perspective.

MR. BELLIVEAU: Just a follow-up because I'm curious about the ROV you talked about. To me, that's a high-tech piece of machinery and may utilize a number of individuals. My first question is, how many individuals actually are going to use this remote vehicle and how often? To me it's just a matter of you're going to have to have more personnel to utilize these particular high-tech devices.

MR. KIM MACNEIL: Yes, in effect we do have more personnel who are joining the department and we've seen a considerable increase in our budget as well that we're utilizing to hire the expertise that we feel we need early on in the process that may not necessarily be required in three or four years, so we're not hiring people now who we'd have to let go.

I would like to say we've hired three people already, we've filled three new positions in the aquaculture group and we intend to add to that down in the Shelburne office.

As far as the people go, they are proud and would certainly be willing to take anybody on a tour at any time, to Bruce's shop down there in Shelburne, to introduce to you some of the highly qualified people we do have there. We have Dr. Cusack and the two vets who work with him and the two biologists. We also have another doctor who

works with Bruce, as well as lab people and biologists who are second to none. We are lucky to have them and it is part of the reason, I think - and if I can go on to talk a little bit about that.

You mentioned social licence, I'd call it public trust. We're working through - and I touched briefly on it in my presentation - a variety of methods to gain that public trust, in some ways to get it back. I think part of that is the commitment to this regulatory process and the commitment to have the best people we possibly can. I think you're getting a little sample of that today, the people who are here with me, this is the tip of the iceberg. There's a lot of people who support us in this work we're doing here and to present here, but also every day they are doing their best to ensure that we can move this industry forward in a sustainable manner.

I really want to emphasize that. It's not just about uncontrolled growth. It's about growth and about economic growth in a sustainable manner that doesn't negatively impact the environment.

MR. OSBORNE: I just wanted to comment on an aspect. I think part of where your question is coming from as well, it's something that we've heard from the beginning, which is capacity. We've heard that both from the general public and from the industry, in terms of what capacity the department needs to do these things to implement and enforce the new regulations, to support the new approach we're taking to development. It's an important question.

We've talked about the enforcement. In the past we had very practical challenges. When you think about needing at least two people to get in a boat to go on the water and you have four or five positions scattered around the province - from a simple, pragmatic point of view, it was very difficult. Now we have 55 officers, well-trained, equipped with boats that are around the province. Our ability to respond provincially to complaints, concerns, or issues has gone up significantly.

The other aspect of capacity, which has been mentioned, is some of the new equipment. We've made over \$1 million in investments in laboratory upgrades, boats, and equipment like the ROV. So along with the new approach and the new regulations has also come the investments in the capacities that we need to support the approach we're taking, along with the new staff that the deputy minister mentioned.

MR. CHAIRMAN: Mr. Mombourquette.

MR. DEREK MOMBOURQUETTE: Thank you all for being here today and providing us with this presentation. I have a question on fish health and I believe that would be for you, Dr. Cusack. Just to give you a chance here to talk a bit about the measures you have in place to ensure appropriate fish health and how that ties into the environment and business and all the stakeholders in play.

DR. CUSACK: The department has various programs and regulations related specifically to fish health and the health of the fish that are on farms in Nova Scotia. One of the components we have is an upgraded fish health laboratory in Bible Hill in Truro, on the campus of the Agricultural College. We share that lab with our pathologists and veterinarians with the Department of Agriculture. We do diagnostics for the aquaculture industry in that lab in Truro. That's one aspect.

The veterinary staff we speak of and the technicians also are engaged in routine health surveillance at the farms. These are routine visitations they make across to the different aquaculture sites and farms. It's very similar to veterinary programs you would see for other farmed animals, like cows, horses, and so on. That infrastructure is there for the routine surveillance.

There's also the capacity to engage the farms in emerging health issues so our staff is available 24 hours a day, seven days a week, so if there's a new health issue that arises in Nova Scotia or at a particular farm, the staff can go to those sites on very short notice and be mobilized very quickly.

We also have a program that's designed to test fish. Farmers don't run all aspects of farming at their site - there are stages to it where fish farmers would buy fish from other producers. You'd have hatchery production sites that would grow small juvenile fish that would again be passed on and sold to another operation, so there is this integration. Part of that process in terms of health is our testing of those fish prior to movement to a new site, so we're overseeing those aspects of health testing prior to movement of the animals from one particular farm to another.

I guess a new piece to what we're doing in aquatic animal health is around these new regulations. We talked about the Aquaculture Management Regulations that had been passed in October 2015 - a very large part of those regulations are to deal with aquatic animal health issues. We're now in a place where we really have a very comprehensive set of animal health regulations related to fish and aquatics and farmed animals. It has really brought us up to a new level so we are on par in exceeding some of the agriculture models for animal safety.

Included in some of those regulatory packages is the requirement for farms to have what we call a farm management plan. This is really a preventive health measure so we're asking each of the farmers - and it will be a requirement that will come into place the end of October 2016, a year after the regulations come into play, that outlines how they will care for animal husbandry, animal welfare, the veterinary care that the farms will be receiving on site, how they survey for diseases, and how they prepare themselves for emergency measures, so in the case that there is a disease that comes into the site, how they will react to that and respond. That's part of the regulatory requirement.



Another piece is the authority that is given to our office now to control. So there will be a list of reportable diseases that the farmers are required - so if they suspect or diagnose a particular disease agent on their site, then the province now has the authority to go in and react to that report. That could come in many different forms.

We could ask them - or in fact mandate them - to treat or vaccinate their fish. In very worst-case scenarios we hope not to find - because we're really in the prevention mode - is if something did occur, we could ask that those fish be removed from the site and disposed of in a way that is biosecure and maintains the health, not only of the farm, but in this instance the regulation is designed to guard for the wider industry and the wider potential fisheries implications.

That's basically some of the highlights of what we're doing now. Some of it has been ongoing. I've been with the department now for 25 years so we've been running a fish health program, it evolved from a single employee now to a larger group, as the deputy has indicated. In recent years we've helped develop the regulation and now we're at the phase that we're looking at implementing these new portions of the program.

MR. CHAIRMAN: Mr. Lohr.

MR. LOHR: I'm interested - I know you mentioned in your presentation, Mr. MacNeil, business development tools. I know in the farm world there is a Farm Loan Board and I know there is a Fisheries and Aquaculture Loan Board. I'm just wondering what steps are being taken to improve aquaculture - being somewhat similar to farming in that it is probably fairly capital intense with pretty long lead times sometimes before there is any return as you wait for things to grow.

I'm just wondering what steps are being taken to improve the Fisheries and Aquaculture Loan Board for aquaculture. How available is it and how is that going to help the industry?

MR. KIM MACNEIL: That's a great question, and certainly as you're aware, I think in the past there was a significant focus from the Fisheries and Aquaculture Loan Board on boats and maybe not on the aquaculture sector, so we've been working very closely - all our staff - with the fish loan board to educate them about how the industry works and how they could help move that industry forward.

So we are looking at some things through the Farm Loan Board with deferred loan payments around shellfish and as well as access to loans for smolt and seed, and as well as loans for infrastructure - so we're talking about rafts and strings for oysters and things like that.

We're looking to do that and certainly the Fisheries and Aquaculture Loan Board has a responsibility to ensure that they're going to get their money back. So it has been a significant amount of work with them to ensure that the aquaculture sector gets the

financial assistance they need, the reasonable assistance they need, but it's done in a thoughtful way so that we're not just throwing money out at the industry.

MR. LOHR: I appreciate the answer, and I do recognize that there is a big difference between lending money for boats and developing an aquaculture farm. I know one of the complaints I've heard in the past, and I'm just wondering if this is still true, is if someone had an existing aquaculture licence they could not go to the Fisheries and Aquaculture Loan Board and borrow money to buy the next site over, it just wasn't possible. I'm wondering if the loan board will allow this sort of development - purchasing the neighbour's farm - which would be quite common in agriculture. I'm wondering if that's still true about the Fisheries and Aquaculture Loan Board in regard to aquaculture.

MR. KIM MACNEIL: It was true and it's no longer true. So they can purchase the farm next door now.

MR. LOHR: In fisheries.

MR. KIM MACNEIL: Yes.

MR. HANCOCK: I can add just one other point, and I think this underlines the changes at the loan board. They now have a member from the aquaculture industry who sits on the loan board, which hasn't been the case for many years. A lot of these good initiatives actually predate some of our interventions there, but all the pieces that the deputy was discussing in terms of deferred loan payments, being able to purchase seed, those are in place right now. So it's not something down the road; it's now.

MR. CHAIRMAN: Mr. Belliveau.

MR. BELLIVEAU: Mr. MacNeil, I'm intrigued by your comments earlier. You talked about Doelle-Lahey and you said that your department actually has gone beyond Doelle-Lahey. My question to you is, is there any reason why your department or your minister, or you and your colleagues here today, have not publicly endorsed Doelle-Lahey in its entirety?

MR. KIM MACNEIL: I think that was done, I think the minister came out and accepted that report. In fairness, to say that every word of a report - it's a huge report, and we've got a copy of it here - that every word is something that the government would institute, I don't think that's reasonable and probably not responsible in this case.

We felt that where we didn't accept Doelle-Lahey we actually improved on what they have recommended. We've also had extensive conversations with Doelle and Lahey since the release of that report and we're fairly comfortable with the fact that what we ultimately arrived at in regulatory form was certainly matching the spirit and surpassed the spirit of the Doelle-Lahey report in that regulatory form.

As I mentioned before, part of that is because those regulations were also influenced by a wide variety of people throughout the sector and the fact that, as Mr. Hancock pointed out, that independent report tended to focus on finfish aquaculture. Really, if we're looking for the economic bang that we need, that the province needs, that we think aquaculture can provide, we need to look at more than finfish.

MR. CHAIRMAN: Ms. Lohnes-Croft.

MS. LOHNES-CROFT: I'd like to go back to compliance, if you don't mind, because I find that interesting, and the whole transition of your enforcement officers moving over to the Department of Environment. How often are spot checks done on these sites?

MR. HANCOCK: Actually, I can't answer that because the requirement is that the Department of Environment handles all that.

MR. KIM MACNEIL: The Department of Environment normally does all their inspections on a risk basis, so the sites that pose the most risk would normally be visited the most often. That's from an employee of the Department of Agriculture and it should be the Department of Environment providing that answer, but normally that's how inspections are done.

MS. LOHNES-CROFT: So they do report back to you - I would assume you get some kind of report when a visit is made to a site?

MR. KIM MACNEIL: Absolutely, we certainly know the outcome of that, but they are an independent group and they're doing the regulatory portion of this, the enforcement part of these regulations, and that is left with them to ensure there is an influence from the developer. That's one of the reasons it was moved to the Department of Environment: that the people responsible for the development aren't also the people doing the enforcement.

MS. LOHNES-CROFT: What are the consequences for failing to comply with a regulation that has been picked up by the enforcement people?

MR. KIM MACNEIL: I can start that off. There is a lot of talk about summary offence tickets. It's essentially like a speeding ticket and they do have the ability to issue those, but I think more importantly under the legislation, it's also called long form charges, which means that the charge is more serious than something that could be paid with a \$1,000 or \$2,000 fine. It goes to court, and a judge and a court would decide the amount of the fine. That is also available under the Act and regulations.

MS. LOHNES-CROFT: Would part of that be working with your department then to become compliant and follow the regulations? Is there a special program for people who fail to meet regulations, to upgrade and be educated into where they can improve their facility?

MR. KIM MACNEIL: There are ongoing programs available and we would like to work with everyone so that they are in compliance with the regulations. That is part of the regulatory plan that we've been implementing - the education of the people who work in aquaculture, as well as the education of the enforcement people. That's a big part of anything. They also have to be knowledgeable. They have to know what to look for. They should know what is serious, what isn't serious - what warrants a summary offence ticket, what warrants a long form ticket.

We've also helped them with that education. We also have people, again - not to harp on that too much - we have a lot of knowledge in the area of aquaculture and we're always available to pass that on to the Department of Environment for regulatory purposes or other purposes.

MR. HANCOCK: Can I just add, one of the points on that one about being proactive with industry, I want to follow up on one of the points that Dr. Cusack pointed out and that was on the farm management plans.

This is really quite a new thing - certainly the first time I'm aware of it in the aquaculture sector in the world, but it's something very familiar at food processing facilities. So it's the same concept where basically the operator has to submit a plan to us that details all the procedures that they do - the process that they have on their farm - and how they're going to control their operations in a manner that keeps it compliant with our regulations.

That program is in the process of being rolled out right now. All operators will have to do it and it's not just about fish health. It will capture all the elements of our farm management plans, so it will be farm operations, containment management for finfish, the fish health, and environmental monitoring is included in there as well.

In that document, it's very much a document that is unique to each operator. The part that is not unique is that there are regulatory outcomes that they all have to meet, but they will detail to us what procedures they'll put in place to do it.

What this does is really put the focus back on the operator to take a look at their operation to determine where there could be the most hazards in there and where you have to control those risks. So it's a real risk-based approach. It's based on HACCP principles - Hazard Analysis Critical Control Point. Again, if anybody is familiar with food processing establishments, it's the same concept as a QMP that the Canadian Food Inspection Agency uses.

The other really interesting thing about that tool is it's not a program or a plan that you make and you put on a shelf. It's one that requires ongoing reporting. We've designed it in a way that it's very consistent with third-party certifications that a lot of people are going for - whether it's food safety certifications or sustainability certifications. We're not

necessarily asking for a separate set of records. It could be the same records that you keep for your third-party certification.

The other aspect is it's something that can be audited, so the reports that are generated from that farm management plan give us the ability and the Department of Environment to go in to make sure that on almost a daily basis people are running their farms in a manner that's compliant with the regulations.

I think another fundamental aspect to a farm management plan is that it's built on constant improvement. If you're identifying areas where you're having issues of non-compliance then there's corrective action measures you can take where you can show how you're going to change your processes to make yourself compliant.

This is a huge piece for industry and it's going to take some time, so we're recognizing, or have in the last few months, what a huge job it has been to create the framework and the template for it. It's creating a lot of interest with neighbouring jurisdictions on what we do. What we've been told when we were investigating and looking at this thing, looking at companies that have gone the route of third-party certifications where there's a lot of paperwork involved and a lot of reporting, is that it is a huge onus in terms of that burden for the reporting and paperwork, but they've all seen significant gains in the efficiency of their operations. So not only is it a useful tool for really promoting compliance and ensuring compliance, but it also can create some real efficiencies for companies as they really are forced to take a really close look at how they operate their businesses, so that's a big piece.

In terms of the rollout, the focus right now is on the development of the template and getting people to submit plans to us. Where we're now starting to direct our attention for next year is in training, so we can have components like biosecurity, which is important for all types of farms, where there can be a training component that's built on biosecurity. This is part of that piece that we're talking about, that it's one step at a time and built up.

I am really hopeful that we arrive at a spot with those farm management plans that by following your own plan, documenting how you do it - quite frankly, the visit from the Department of Environment should be a matter of going in - can I see these records, can I see these records? - and really authenticating that the person is actually doing what they say they're doing.

The one other piece I'll just touch on with the Department of Environment is that it has only been just a little over a year where that division has taken place. We've got an excellent working relationship but I think there's a mutual respect with where that relationship sort of stops and starts. They definitely contact us for expertise on the biology and the fish health aspect of things, but when it gets into an investigation or whether they're going to pursue charges, they really remain very independent on that. That's their area of expertise and I think that's the strength in the system.

What we do, to your point about what the repercussions are, we talked about summary offence tickets, the ability to prosecute, and of course there's always the ability to do warnings; I'm sure the deputy would know more about that. The other part is that in our framework, we have built pieces in there where we look at the history of the operator. So when it comes time to apply for an option, let's say, if you're an operator right now and you want to apply for another lease space, one of the criteria spelled out in our regulations is the history of the operator. If you have a history of poor performance or non-compliance, that will be taken into consideration. That's one of the fundamental recommendations of the Doelle-Lahey report: that good operators be rewarded for their performance and bad operators not be rewarded.

I think underlying all of this - and you can't underscore this enough - is even when it was just four inspectors, they had no rules to work with. It was extremely discretionary in terms of what the outcome was that we are looking for.

Now we have this extensive collection of well-defined rules with thresholds that have to be met, so industry knows where they have to be on these things and the inspectors now have something to go in there and actually inspect for.

MR. OSBORNE: Just one extra little piece I would add is that we do certainly communicate with the Department of Environment at several levels between our two organizations, and we do have an MOU that is being developed to describe the roles and relationship and how we work together. So there is communication, but it's just not on individual investigations or cases or complaints. That's clearly what they do. We do get together regularly and talk about the bigger picture, the program areas, changes that may be required to the Act or the regulations and, as Mr. Hancock mentioned, on an ongoing basis there is exchange of technical information.

We're certainly there to support any need that they have in that sense, or even sharing of boats or equipment to do that kind of work as well. There is a lot of collaboration and communication - it's just not on any individual complaint or investigation that they're doing.

MR. CHAIRMAN: Mr. Lohr.

MR. LOHR: To summarize a little bit of what I heard, I think the world needs aquaculture. It's growing all around the world, yet it has flat-lined here in Nova Scotia. We had a report in 2014 that we all thought was going to make things pretty clear in regulations. It has been two years. There have been two advisory panels announced. I heard one was independent. Some of the regulations that we still await are in the hands of those advisory panels. It just feels like the world is progressing in aquaculture and you're doing good work, I won't deny that, but it feels like it has stalled.

I'm just wondering when will we really see - I think I heard one of the Bruces say, I don't remember which one - that the goal was that someone who wanted to get a licence would just look online at the manual and understand what needed to be done and go ahead. When are we going to get there? How long are we going to be stalled?

I know we have the Dalhousie AC that's got the only aquaculture program in Canada, I think, and yet many of the graduates go to other provinces to work - if not all.

MR. KIM MACNEIL: I guess we all share your enthusiasm for the aquaculture sector and we would like to see it progress as quickly as we can, but we certainly need to temper that with doing it the right way and we feel that if we rush into this without the appropriate legislation, regulations, and policy - which is where we are right now in all of this. We already have our regulations, but we're working on how the policy and procedures work on the areas that you're mentioning. We think it has the potential to be a huge problem if that's not done correctly.

Mr. Belliveau mentioned previously the issue of social licence. I won't cover it again, but I did cover it in the presentation. I referred to it as public trust and acceptance, and we feel that in order to get that public trust and acceptance we have to do this in a thoughtful and in a coordinated manner so that we eventually end up with a sustainable industry.

As you can see here, we've got a lot of passion at this table for this sector and there is nothing that we would like more than to move it forward as soon as possible, but we want to make sure that we get it right. It's really important that we get it right.

MR. CHAIRMAN: With that, we will draw this committee meeting to an end. Before we do, I want to acknowledge the hard work that your department has done. It's very apparent that you're leaders in the world on the regulation side of things, so I do commend you and your team on the organization. Just a second, Mr. Belliveau, I do see you, but I am speaking now.

I do see the importance of gaining the trust of the public, I understand Mr. Lohr's passion, but it's very apparent that we're taking the right steps to ensure that we are doing the right thing for this province and the future of this province and for future generations, as our oceans are so fundamentally important.

With that, I want to thank you again for all your hard work. We will have a five-minute recess, then we'll go to committee business. Mr. Belliveau, we can address you at that time during committee business. Thank you.

[2:45 p.m. The committee recessed.]

[2:50 p.m. The committee reconvened.]

MR. CHAIRMAN: Order. We are now on committee business. Mr. Belliveau, I'll get to you at the bottom of it but first can I do (a), (b), and (c), and then we'll get to your request, whatever that may be.

The first one on the committee business was a letter from - we sent a request for information to CFN Consultants Atlantic. They sent a response back saying that they are not the best place to get that information.

My question to the committee is, do we want to continue on asking the question, going through the recommendations that Mr. Goode has implicated or are we okay with what he has provided? Are there any comments on this? Mr. Lohr.

MR. LOHR: I'm just trying to wrap my head around this. What I understand was the question was on dispersants and the use of dispersants in the case of oil spill cleanup. It was, I think, a question posed about the environmental aspect of that, is that correct?

MR. CHAIRMAN: Yes.

MR. LOHR: Okay. I think the question is still relevant, if we can ask someone else, if Mr. Goode is suggesting someone else to ask, we should ask the question.

MR. CHAIRMAN: So can we ask the office to draft a letter - the same question - to the Canada-Nova Scotia Offshore Petroleum Board? Would all those in favour of the motion please say Aye. Contrary minded, Nay.

[The motion is carried.]

MR. CHAIRMAN: The next part of committee business is the Cape Breton Partnership has requested to come forward to the Economic Development Committee. My recommendation would be to approve this request and just put them into the hopper of the agenda. Are there any concerns or Nays regarding that? Mr. Lohr.

MR. LOHR: Did they give an indication of what the topic was they wanted to address?

MR. CHAIRMAN: They did send a letter of request - a land and asset database. Mr. Wilton.

MR. WILTON: I think the request is for them to approach us and inform us on past properties and stuff that's owned by government, what they can do to utilize them in the future, so it's basically to inform us.



MR. LOHR: I would defer to my Cape Breton colleagues' decision on this - if they want it, that's fine with us, but it's up to you.

MR. WILTON: I'd like to make a motion that we do accept them.

MR. CHAIRMAN: Perfect. Would all those in favour of the motion please say Aye. Contrary minded, Nay.

[The motion is carried.]

MR. CHAIRMAN: Great, thanks. We will add them to the calendar.

The last item of committee business before we go to Mr. Belliveau is an email we all received from Shelly Hipson. I think we all have it here, it's quite detailed and it went to a lot of people.

My recommendation is to send this to the Department of Fisheries and Aquaculture and ask them to create a response and send it back to Ms. Hipson, and make sure we're cc'd in the letter so we're all clear on the communication. Does anybody have an issue opposing that suggestion?

Would all those in favour of the motion please say Aye. Contrary minded, Nay.

[The motion is carried.]

MR. CHAIRMAN: Great, thank you. Mr. Belliveau, off to you, my friend.

MR. BELLIVEAU: Mr. Chairman, I'd like to put a motion on the floor that this committee write a letter to the Minister of Fisheries and Aquaculture requesting the adoption of the Doelle-Lahey report in its entirety and work to ensure that all recommendations of the report are implemented.

MR. CHAIRMAN: Would all those in favour of the motion please say Aye. Contrary minded, Nay.

The motion is defeated.

With that, the next meeting will be October 11, 2016, from 1:00 p.m. to 3:00 p.m. At that time, the witness will be determined.

The meeting is adjourned.

[The committee adjourned at 2:55 p.m.]