

# PROVINCE OF NEWFOUNDLAND AND LABRADOR HOUSE OF ASSEMBLY

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Physical Mitigation of Muskrat Falls Reservoir Wetlands: Report of the Auditor General (Continued from November 23, 2022)

## **PUBLIC ACCOUNTS COMMITTEE**

# Physical Mitigation of Muskrat Falls Reservoir Wetlands: Report of the Auditor General

Chair: Tony Wakeham, MHA

Vice-Chair: Sherry Gambin-Walsh, MHA

Members: Scott Reid, MHA

Lucy Stoyles, MHA Brian Warr, MHA

Helen Conway Ottenheimer, MHA

Jordan Brown, MHA

Clerk of the Committee: Kim Hawley George

Appearing:

#### Witness Appearing

Dr. Ken Reimer, Chair, Independent Expert Advisory Committee (former)

# Office of the Auditor General

Sandra Russell, Deputy Auditor General Trena Keats, Assistant Auditor General Adam Martin, Audit Senior

## **House of Assembly Service**

Bobbi Russell, Policy and Communications Officer Mark Jerrett, Policy, Planning and Research Analyst Evan Beazley, Committee Clerk (A) The Committee met at 10 a.m. in the House of Assembly Chamber.

**CHAIR (Wakeham):** Good morning, Dr. Reimer. Thank you for your appearance at the hearing today.

The Standing Committee on Public Accounts is dedicated to improving the public administration in partnership with the Auditor General. The Committee examines the administration of government policy, not the merits of it. The Committee strives to achieve consensus in its decisions, whenever possible, and Members take a non-partisan approach to their work on this Committee.

For some housekeeping remarks before we get started, I always remind participants that this a public meeting and their testimony will be part of the public record. Live audio will be streamed on the House of Assembly website at assembly.nl.ca, and an archive will be available following the meeting. Hansard will also be available on the House of Assembly website once it is finalized.

Witnesses appearing before a Standing Committee of the House of Assembly are entitled to the same rights granted to Members of the House of Assembly respecting parliamentary privilege. Witnesses may speak freely and what you say in this parliamentary proceeding may not be used against you in civil proceedings.

I understand the Clerk has sent you the affirmation, so if we could start with that, we would start the proceedings.

#### **Swearing of Witnesses**

Dr. Ken Reimer

CHAIR: Thank you, Dr. Reimer.

Before we start, I want to go around and introduce Members of the Committee and the members of the Auditor General's

department who are here. So I'll start on my immediate left.

**J. BROWN:** Jordan Brown, the Member for Labrador West.

**L. STOYLES:** Lucy Stoyles, the Member for Mount Pearl North.

**S. REID:** Scott Reid, MHA for St. George's - Humber.

H. CONWAY OTTENHEIMER: Helen Conway Ottenheimer, MHA for Harbour Main.

**S. GAMBIN-WALSH:** Sherry Gambin-Walsh, MHA for Placentia - St. Mary's.

**CHAIR:** My name is Tony Wakeham; I'm the MHA for Stephenville - Port au Port.

Now, from the Auditor General's department ...

**S. RUSSELL:** Sandra Russell, Deputy Auditor General.

**T. KEATS:** Trena Keats, Assistant Auditor General.

A. MARTIN: Adam Martin, Audit Principal.

CHAIR: Thank you to all.

Dr. Reimer, we also invite any witness that comes before us, if they would like to make an opening statement, around two or three minutes. If you wish to do so, you're more than welcome.

**K. REIMER:** No, I think probably I will go straight into the questions. I think that would be easiest.

CHAIR: Okay, thank you very much.

What we will do is we'll do kind of a little round table. Each Member will ask some questions in turn and we'll just go around

and then if there are more questions to be asked, we'll do that at the end.

Thank you.

K. REIMER: Sounds good.

**CHAIR:** So I'll start again with to my immediate left, Mr. Brown.

**J. BROWN:** Thank you, Dr. Reimer, for joining us today.

My first question is, if you wouldn't mind explaining your role on the IEAC and the process of when the IEAC was set up.

**K. REIMER:** Certainly. I was approached in late June of 2017 with the idea that – I was offered the position of chair. I considered it and wrote back a proposal to deal with how I saw the scope of work. We had to work out some details of how financial transfers would occur to support the office of the IEAC and eventually that was sorted out, then I signed the contract on the 1st of August of 2017.

As chair of the IEAC, I chaired, really, two groups: the Oversight Committee, which consisted of the Indigenous groups and a representative from the affected municipalities, as well as non-voting member, representatives from Nalcor, the provincial and federal governments.

The scientific and Indigenous knowledge information that was brought, or the decisions that were made based on scientific and Indigenous knowledge, were developed through an Independent Expert Committee. That committee consisted of members who had been nominated by various parties of the Oversight Committee, vetted by me, and then I got them on contract, and this consisted of six scientists. So people who would provide a western scientific approach to the questions at hand, and three Indigenous knowledge experts, each appointed by the three Indigenous groups.

So the IEC looked at the technical information, Indigenous knowledge. Recommendations were put forth then to the Oversight Committee and, at that level, recommendations to government were created.

J. BROWN: Thank you, Dr. Reimer.

So when you were chair, there was obviously a report that Nalcor had commissioned on different mitigation risks and that was delivered in December 2017. Then the scope was narrowed down again and there was a supplementary report in March 2018.

In those reports, there were obviously timelines. When it came to certain events, a decision would have to be made by a certain date to commence work on the mitigation. Were you aware of those timelines in those reports and was it a part of your decision-making process to let the government officials know that certain decisions have to be made by certain dates in order to even do the work that was required?

K. REIMER: In my mind, there was no question of the urgency of this situation. Perhaps, if I may, I'll just step back to sort of how that process unfolded. I mentioned I was appointed on the 1st of August of 2017. We had our first meeting of the Independent Expert Committee in Happy Valley-Goose Bay just after Labour Day that September. That was an in-person meeting. We had had other meetings and also meetings with the Oversight Committee because there was a sense of urgency.

We knew that the full inundation was going to take place in the summer of 2019 and there was a sense amongst all of the participants, in my mind, and certainly in my mind that our work had to be completed quickly. My contract, in fact, only ran to March 31 of 2018, so there in itself was a deadline.

When we began our work, we had asked for that report you mentioned that Nalcor produced in December as one of our three recommendations that came out (inaudible) the 22nd of September. We wanted to get a sense of whether it was feasible and what the extent of the work would be. As we approached through the fall we had other work going on at the time, subcontracts from other experts bringing in other information to us along the away, we realized that we wanted to really get a handle first-hand of what was going to be needed if mitigation was to take place.

I formed a reservoir subcommittee consisting of several members of the IEC. What we did with them was to ask them to go through the geographic information system that Nalcor had available to look at the various areas. Were there some areas where there could be more benefit for the removal of organic carbon, i.e., soil, and then others? In fact we realized some areas would not be accessible, perhaps physically, for people to be able to use the equipment and so on.

Our reservoir subcommittee was working in parallel to that report coming in. Very shortly after it arrived, it was looking at full mitigation, soil removal. We were able to target other areas which we felt would have greater value and probably a greater sense of success in terms of getting it done. But to give you a sense of that urgency, we accomplished quite a bit in the first few months.

But as January of 2018 came, we certainly realized that we had a lot of work to do, certainly if we were to make recommendations to government by the end of March. I remember having more than one meeting with the Expert Committee to say to them: Are you prepared to make the commitment for the amount of work that has to be done between now and then? There was unanimous agreement to that fact.

So the experts certainly knew this was the case, and we were meeting at least twice a month, more frequently in some cases, to get to our end result. I communicated that information pretty clearly to the Oversight Committee, who I met with very regularly – no less than once a month. So the Oversight Committee had to know that we were pressing for that.

We pressed for a meeting in March of the Oversight Committee, where we had finally developed the recommendations, not just the mitigation ones, of course, but others. We had prepared, actually, my office, a series of documents to brief the Oversight Committee on three main thrusts: one was the mitigation, one was monitoring and one was human health.

That material was given to them in advance and they discussed it at an in-person meeting in Happy Valley-Goose Bay, I can't remember the exact date now, but around the middle of March, with the goal of a decision being made so a letter could be sent to government before the March 31 deadline.

There was some questions during that period, by at least one of the parties, about having enough time to be able to examine the material. Again, this sense of urgency was stressed, but they did request a delay and work was extended into April, which is why the final recommendations appeared to government in April.

During that process of discussions, I got a call from the deputy minister saying: Do you need more time to get the decision or do you need more time to get additional information? I replied by saying that we felt we had enough information to make our recommendations and we felt time was of the essence. So extending the work of the committee did not make sense to me. So as we delivered that final set of recommendations, there was a constant theme of urgency, I guess would be how I would best describe it.

**J. BROWN:** Thank you so much, Dr. Reimer.

So during the time – and like you said, you did speak with the deputy minister and obviously the special advisor that was appointed from government – did you ever get a sense from the department of municipalities and environment, that they didn't see the same urgency that was put on you by the decision to have this committee. Do you feel that there was a decision already made on what they were going to do and that they already had their minds set prior to receiving the recommendations?

**K. REIMER:** Not directly. Not in that sense, no. Certainly in my discussions with the deputy minister, he had been very supportive throughout the process. Had been instrumental, in fact, in helping set up the arrangements we needed for financial transfers and so on.

When I told him about the sense of urgency in that March time frame, I'm quite confident he understood that.

If I was to offer any suggestion of reluctance, I suppose, I would say that the scientific advisor never really thought that mitigation was required and that was ultimately shown in his decision summary afterwards as the non-voting member of the Oversight Committee. That was certainly not a singular feeling amongst members of the non-voting members for sure.

So I would say that was certainly present, it was quite clear, but there's no way in my mind that people could not have been aware that there was a sense of urgency. We had said many times, we have to have a plan that could be executed prior to full inundation of the reservoir.

J. BROWN: Yes, thank you, Doctor.

So obviously at the time, after your contract lapsed and the committee's final report was submitted and obviously the committee was dissolved, you offered to help the department with its work. It's been noted in the report that you did not receive any, I quess, replies to your offers of help.

During that time, did any Indigenous group or Nalcor, anyone like that, reach out to you to ask or express any help to find out what was going on with the permitting process? Did anyone ever come back to you and say, we've gotten nowhere, is there anything you could do? Did you receive any correspondence like that?

K. REIMER: I did not.

Early on in that process there was, at least one of the Indigenous groups, the Nunatsiavut Government, had suggested perhaps I should come to St. John's and deliver the report more personally and we even had that scheduled in late April with, then, I guess, Minister Joyce. I felt that was an opportunity to try to communicate our findings. Of course, ministers change, that meeting was cancelled and then it was delayed to a meeting with the new minister, I believe, Minister Parsons, in June.

So I kind of had the hope in that spring period, that okay, things were changing, government ministers were changing, got to be briefed, that things were still moving, but by the time July came and nothing had happened, I was getting quite concerned. We knew we still had the fall and winter period for those mitigation efforts to take place. There had been some discussion amongst the scientists and amongst the group that in fact fall and winter would be a good time to do that mitigation activity.

So we still had a bit of time, but that prompted me to write to the deputy minister by email in August saying what can I do to help? Things need to be moving ahead. I received no reply. I somewhat frustratingly wrote again in September and still received no reply.

J. BROWN: Yes, thank you.

I guess you were aware that in Nalcor engineering consultant's supplementary report, because we had scenario A and scenario B, which scenario A was: wetland capping; scenario B: targeted soil removal. Were you aware that in that report it did say that construction or, I don't know, I guess, mitigation work had to begin by the beginning of that November in order for it to actually work? Were you aware of that timeline and did you express that timeline to anyone in the department?

**K. REIMER:** I was very much aware of that. That was certainly a discussion point at the oversight meetings in March in Happy Valley-Goose Bay.

We all knew that that timeline was critical. There were several other scientific reasons for earthworks taking place in the colder part of the season anyways because methylmercury is most easily produced in the warmer months. By working in the colder month and stirring things up as it were, as you're working, we would minimize any potential release of methylmercury by working during those time frames.

So the time frame worked both from a logistical perspective, I knew it would take Nalcor at least some time to get organized to do that, and it was also the fact that it would be a better time to be doing work in its own right.

We had the window up until we didn't have the window anymore, I guess.

J. BROWN: Thank you.

So during that time were you aware of any presentations given by Nalcor on doing the work post-impoundment or are you aware of any presentations given to government on that situation of post-impoundment work instead? We did a lot of that in the earlier testimony that government officials received some sort of presentation to that.

K. REIMER: At the time, no. I was in the dark because I received no more information. But as the process moved on, I saw various media releases and other – I was closely following the situation as the best I could. I am subsequently aware that Nalcor received an engineering opinion that the work couldn't be done postimpoundment, that it would be unsafe.

That did surprise me. I have not seen the report so I cannot speak to the technical details. I know it did come up in our meetings of whether post-impoundment mitigation could have been done. I have some experience in contaminated harbours, harbours with contaminated sediments where in fact there's a very well-known technology for working over bodies of water with barges and heavy equipment to put capping material on the floor of the sea, the lake, the river, whatever the case may be, and capping areas when there's water above them.

In fact, I still believed that could be done, but I understand – and this is me not having seen the report –they're worried about slope stability. Equipment would have to go into the water without compromising the stability of the slope. It would have to access the water and obviously that's a much bigger task now that the construction season had been completed.

So there was discussion of that, but there was no detailed discussion about the feasibility because the committee was striving to have things done preimpoundment.

J. BROWN: Okay.

Thank you, Dr. Reimer.

**L. STOYLES:** Thank you, Dr. Reimer, and thank you for coming today.

A couple of questions actually. So you were part of the Independent Expert Advisory Committee, so I'm just wondering were you

appointed and how many people were on your committee?

**K. REIMER:** Yes, I was appointed as chair. The structure of the committee is set out in the terms of reference, which had been developed, I believe, in March, prior to me coming on board. So as my role of chair, I was chair of really two committees.

The IEAC was comprised of two subcommittees, if you like: the Oversight Committee, which provided the higher level of political and (inaudible) government aspects. That consisted of three Indigenous groups, a member of the affected community, three non-voting members representing the province, the federal government and Nalcor. The Independent Expert Committee were a group of nine people: six scientific experts and three Indigenous-knowledge experts.

So I chaired each of those committees with the Expert Committee feeding information in as recommendation and background material to the Oversight Committee.

On the Oversight Committee as chair, had there been a tie, I had, in the terms of reference, the ability to vote to make or break that tie.

#### L. STOYLES: Okay.

According to the Auditor General's report on page 9 it says that the deputy minister certainly advised the Auditor General that you were a key contributor to the policy decision-making.

How do you feel about that? Do you feel that you were – they listened to what you had to say, to your views?

K. REIMER: Well, in terms of the execution of the work, I guess in terms of the implementation of the overall recommendations, I've been quite disappointed. I think that the work of the IEAC, especially the Expert Committee who

worked so very hard – I think we had 40 meetings and developed or heard over 100 presentations (inaudible) in a period of eight months and commissioned several outside studies whose work we reviewed.

I think the recommendations were very well thought out. I think they represented a – the end result, unfortunately (inaudible) I suppose successfully achieved consensus of all aspects of the recommendations, except for mitigation, with the one exception that there was agreement on the capping of the wetlands. So I felt overall we were quite successful.

To have silence after that was, it was a pretty busy project and I'd have to say it felt quite disappointing that it was very quiet.

I am pleased; we felt some of the recommendations were urgent. The mitigation was urgent and also it was the communication to the public that an assessment of the current methylmercury levels in country food meant those country foods were, at that time, safe to eat. That was very important information because there was disinformation out (inaudible) were already contaminated with methylmercury. We felt that needed to be acted upon and, to my knowledge, it was not.

I am pleased to see that just this past September the Monitoring and Health Management Oversight Committee has been struck. That does speak to the heart of the key recommendations that was made in that time frame. It is, of course, 3½ years later.

**L. STOYLES:** In your opinion, I'm just wondering what went wrong. Would there be any different advice that you would give to the committee?

**K. REIMER:** I'm sorry, are you asking me what I think went wrong?

L. STOYLES: Yeah, I'm just wondering, we're looking at improving things to make things better for the future, because we know, obviously, things went wrong and things didn't happen. I'm just wondering if there was any different advice you would've given or if you would've made a stronger view on certain things?

K. REIMER: That's a very interesting question. I struggle when I think about this project. I did testify with the Auditor General some time ago and I'm now, of course, thinking about it again. I struggle to understand how things did not move forward. I can understand temporary delays with the change of ministers in the spring of 2018. I fail to understand why mitigation didn't take place, quite frankly. I'm also still further disappointed that the monitoring committee took so long to also sort of get in place, although I'm pleased that it has done so, of course.

One possibility would have been if I had still been on contract, because then I would have had, I think, a better voice to government to try to keep – I would have had more of a formal position by which I could have continued to follow up on those recommendations to ensure that they were being dealt with.

I tried to do so informally, as the former chair, and clearly that wasn't very successful.

**CHAIR:** Just to interrupt for a second.

Dr. Reimer, you don't have access to a headset by any chance do you, because your voice comes and goes at times. Sometimes it's very strong and then we lose the signal a little bit and I don't know if it's the –

**K. REIMER:** I'm afraid I don't. My office in Canada is more set up for these types of things. I'm now in my winter home so I'm making due. I'll try to make sure I speak

more directly and not move my head, that might help.

CHAIR: Okay, thank you so much.

**L. STOYLES:** So Dr. Reimer, who did you actually report to? Did you report to the deputy minister or the committee reported to the premier directly? Who did you actually report to?

**K. REIMER:** We were independent. Once we were set up, I had a budget; I had the committees. We had an office in Happy Valley-Goose Bay and we basically operated under my direction, which was, I think, the sense of the terms of reference that we were to operate independently.

We had an arrangement with the provincial government where we could go to the deputy minister's staff for passing of invoices and so on, having an audit basically, which were then paid by Nalcor, the payment agency, but we never had any questions in terms of (inaudible) through that process.

We were set up to be independent and we operated as such.

**L. STOYLES:** All right thank you, that's it for me.

S. REID: I want to continue along on those similar sort of questions that have already been asked here, I guess. I'm interested in the structure, the committee and the recommendation related to wetland capping or mitigation in general came about. You mentioned the three Indigenous knowledge experts and the six scientific people that were on the Expert Committee.

There have been some statements and maybe now some evidence about the nature of methylmercury. So I'm just wondering how that decision was made. Was it a unanimous decision? Was it sort of highly contested? I'm just wondering about that recommendation and how it was made.

K. REIMER: Certainly. Obviously, it was a complicated piece of information. What the committee has considered - and this would be in the Expert Committee because they were the ones reviewing the technical information. I mean, everything is modelled because of course the production of methylmercury takes place sometimes, perhaps years past the initial flooding of a reservoir. So the work that had been done by Harvard University was a full-fledged working model. We put inputs into that model, asking various scenarios to see if mitigation measures would be successful or not in reducing the amount of methylmercury.

We get asked in our original set of recommendations in September of 2017 that the model being developed under contract to Nalcor be expedited so it, too, would be ready for us to run similar scenarios before our deliberations. It was not ready; that recommendation was not met. But it was sufficiently ready that we could work with their modeller to put similar inputs in, to get a sense if the two models were in agreement or sufficient agreement to predict whether mitigation would in fact do something.

We were satisfied by March – again, when I say we, the Expert Committee - that indeed targeted mitigation, that is removal of soil and the capping of wetlands, would have made the difference. It would reduce the amount of methylmercury that would eventually find its way into country food. So when they finally came to making a decision, the experts made their individual recommendations. The decision was made with two options. One was full litigation, and full litigation meant removing soil and also covering the wetlands over those targeted areas. That was those refined areas that I mentioned we had, through the period of the winter, refined and asked to go into the decision-making process.

The second option for mitigation was to not remove soil, but to cap the wetlands only.

So eventually it came to a vote, and each of the expert members' decision-making thought process is a matter of record. I had them summarize that information and it did appear with our information.

In the end, three members of the scientific group recommended against any form of mitigation. They felt that it would not be effective or sufficiently effective in that if there were problems of country food going forward or health-related issues, consumption advisories would be sufficient.

I found that a bit surprising, personally, because we heard loud and clear from Indigenous groups that consumption advisories were not something that they wanted to see. The three Indigenous members all voted for full measures, that is soil removal and capping of the wetlands, as did two other of the scientists. One of the scientists took the middle ground and recommended capping only.

So, at the end of the day, out of the nine members of the committee, there were three who recommended against no mitigation and six who recommended for some form of mitigation, at least in the form of capping of the wetlands.

S. REID: So in terms of the groups that you were dealing with, that you were engaged with, in terms of the people responsible for implementing this would have been Nalcor primarily but also involved would have been the deputy minister of Municipal Affairs and Environment and maybe the Premier's office. Did they fully accept the recommendations that were being made or was there some resistance? You mentioned, for example, as you were trying to get these recommendations implemented, you had sent several letters and you hadn't got responses.

I'm just wondering about how responsive people were to these recommendations that were being made. You described the situation as urgent. I'm wondering if your

sense was other people were recognizing the urgency of this as much as you and your committee were.

K. REIMER: I'd have to say I don't know because once we submitted our recommendations, I really heard nothing. I heard nothing at all, in fact, until I got a call that I was going to have a meeting with Minister Joyce in late April of 2018, which, of course, then was rescheduled with a new minister in place and then I had a brief meeting, I think it was early June, with I believe it was Minister Joyce.

I certainly communicated the sense of urgency at that meeting. We had a very short meeting and I felt somewhat frustrated that it was not possible to elaborate on what we felt - and I say we, not just myself, but the committee as a whole - were the importance of the whole package of recommendations. Mitigation had a tight time frame, but there were other things in there like the communication information of trying to calm people's fears as it were because we knew at that point that country food consumption at that point in time was indeed safe, that people should not be worried about it, despite the fact that there were many concerns out there.

So I felt there was urgency around a number of matters. Those two, perhaps, had the tightest, the most important time frames in my own mind and certainly the mitigation measure, the capping of the wetlands most significantly so.

I did the best to communicate that, but I would say after that teleconference meeting with the minister in June, I heard nothing else until, in fact, I heard from the Auditor General's office about a year and a half ago.

**S. REID:** You mentioned you sent some written correspondence. I'm just wondering the nature of that. Was it an email, was it a more formal letter or were there any other attempts to contact people at Nalcor in

particular or anyone else in relation to these recommendations, where things were going?

**K. REIMER:** I communicated by email directly to Jamie Chippett, the deputy minister.

We kept an arm's length relationship, I think appropriately so, with Nalcor. We felt that the recommendation had been made to government and government would have to act. So I contacted the most senior person that I had direct access to.

**S. REID:** Was there any contact with the Premier's office in relation to this?

K. REIMER: No, there was not. In retrospect, I probably regret that, that I didn't make personal contact with the Premier's office. That was probably something that if I was to do it over again, I would have done.

**S. REID:** Okay, thank you for your forthright answers. I appreciate your comments.

H. CONWAY OTTENHEIMER: Helen Conway Ottenheimer, MHA for Harbour Main.

Dr. Reimer, I just want to continue on from the last question that my colleague asked and your response with respect to reaching out to the Premier's office. Because when I look at the fact that you've stated in your evidence that you were frustrated with how things were unfolding, the silence was disappointing, that even though you had recognized there was a sense of urgency, you still weren't getting a sufficient response in regards to the recommendations. Even after you had submitted your recommendations you said you had heard nothing.

What I ask about that is, the silence was disappointing, and you indicated just now that perhaps you could've reached out to the Premier's office, that might've been

something in retrospect that you could've done to perhaps draw attention and bring more emphasis on this matter.

Is there anything else that you think that would've been helpful? I know that you were in an arms-length relationship, but would there have been anything else that you think would have expedited this and perhaps avoided the situation that occurred with respect to the fact that no physical mitigation actually occurred?

K. REIMER: That's a very difficult one to answer, because I will confess that going to the media had crossed my mind because that would've certainly gotten the attention of things. But I chose not to do that. That was a deliberate decision because this project, as we know, was highly sensitive. There were a lot of concerns and fear about what was going to be happening once the reservoir was flooded. People were concerned about country foods; they were concerned about their health. We'd seen a great deal about it. I mean, it led to the creation of the IEAC as the result of a strike, or public unrest in October 2016.

We always wanted to treat this carefully so that people were getting good information and not sensational information. I felt that walking that line was important because we knew already, and as I mentioned a couple of times now, right at that point in time country foods were safe. We really wanted to get that message (inaudible) that things were okay at that moment and that I felt that the evidence was correct and the implementation of those recommendations would keep things safe. Or certainly, at the worst, provide an insurance policy with an early warning system to make sure that people could be comfortable. I felt that going to the media was not an acceptable way to do that for those reasons.

I confess, I mean I was no longer on contract, I felt I didn't have a great deal of power left and that's perhaps why I didn't contact or try to contact the Premier's office. I contacted the highest level public servant that I had had previous contact with, that being the deputy minister.

- **H. CONWAY OTTENHEIMER:** So on that point, do you think that if you had to have further communications with the deputy minister, would that have perhaps assisted in some way?
- K. REIMER: Well, I certainly think that we would have a discussion. The sense of urgency would have definitely been made clear. If I had a reply to my August email, I was perfectly willing to meet with whomever and to discuss with whomever the reasons behind the sense of urgency and I would have done so, quite happily.

Unfortunately, there's only so much you can do and your efforts fall on deaf ears.

**H. CONWAY OTTENHEIMER:** Yes, that is very unfortunate.

We have been hearing so far with the testimony of other witnesses that communication was definitely a recurring theme. The lack of communication I should say – the lack of effective communication between numerous officials, departments and so forth was definitely a concern.

So it would be safe to say that the communication piece here was, as well, very disappointing and lacking. Would you agree with that statement?

- **K. REIMER:** I would certainly agree with that statement.
- **H. CONWAY OTTENHEIMER:** (Inaudible) coming and going, unfortunately, so could you repeat your response to that, again?
- **K. REIMER:** I would definitely agree with that statement.
- **H. CONWAY OTTENHEIMER:** One further thing, I'm sure that you've read the Auditor General's report at length and understand

that one of the findings – actually perhaps the most critical finding of the Auditor General was that they could not find a plausible reason why the wetland capping policy decision did not happen in a timely manner.

When I hear your testimony as well, you really as well indicate that you can't understand what happened. I mean, is there any information that you have gleaned, even from examining the report, or is there any direction you can give us in terms of what happened here? Because we look at the fact that the provincial government established your committee to provide recommendations and this was going to have a very important impact, yet the recommendations, as you say, fell on deaf ears.

So can you give us any insight as to why you think this happened that the wetland capping policy decision did not happen in a timely matter?

**K. REIMER:** That is the most difficult question and with quite a lot of speculation.

I will start by saying I see no reason why it shouldn't have happened. I know from the report that Nalcor were prepared by June to implement the capping. They had done the cost estimate of it so they'd obviously done the engineering required to know what to do. I was quite pleased by that and it signalled to me – and again, I'm speculating, of course – that Nalcor had presumed (inaudible). So they were ready to go. That would have been ideal because it would've met all the timelines necessary.

I believe I read correctly, or interpreted correctly, that the authority to give them permission to move forward from the environment department lay in the hands of the director in that that could've been done without seeking higher authorities. So I don't know why it just wasn't done. It is a mystery to me as to why it wasn't done.

I suppose – and again I stress I'm speculating, but it's only a feeling that when I read in the report that it was really not until November that Cabinet began to discuss the recommendations that we had made, many months after we had recommended them, that in itself was disappointing. How there wasn't a sense of urgency that they do so, given the genesis of the committee and the significance of the project, it just simply baffles me.

H. CONWAY OTTENHEIMER: I would like to say it baffles many of us as well. I would also like to say thank you for the extensive work that you and the members of the Oversight Committee and the Independent Expert Committee have done in regards to this matter. I thank you for your answers to my questions and that's it for now.

Thank you.

K. REIMER: Thank you.

**S. GAMBIN-WALSH:** Hi, Dr. Reimer, Sherry Gambin-Walsh here.

You have answered most of my questions already; however, I do have one. On April 10, 2018, the IEAC issued its second set of recommendations. How were they released and to whom did you release them?

K. REIMER: Oh, how were they released? They were sent by email to the minister, but it was copied also to – I'm afraid my memory doesn't serve (inaudible) all those members of the Oversight Committee. Also federal government ministers as well. So it was a fairly (inaudible).

**S. GAMBIN-WALSH:** Sorry, Dr. Reimer, we lost you. We heard you say it was emailed to the minister; we didn't hear anything else. Can you tell us what minister it was emailed to?

K. REIMER: Minister Joyce.

**S. GAMBIN-WALSH:** Okay, and can you repeat what you said after that, please?

K. REIMER: And it was also copied to a number of other individuals, including members of the Oversight Committee and federal ministers of government as well. So you'd have to look at the original document. I'm afraid my memory four years later is not good enough to remember the full distribution list, but it was extensive.

**S. GAMBIN-WALSH:** Do you know if it went to the deputy minister?

**K. REIMER:** It would have gone to the deputy minister.

**S. GAMBIN-WALSH:** Okay, thank you very much.

That's all for me.

**CHAIR:** Hi, Dr. Reimer, Tony Wakeham here.

I wanted to follow up on a couple of questions relating to Nalcor and their belief in the urgency of the project. We heard from a couple of witnesses yesterday, one being the senior advisor from Municipal Affairs and Environment, who felt that there was no rush to do the capping and that it could be done after the flooding had taken place, so to speak. We also heard from another deputy minister of Indigenous Affairs that he was in a meeting where Nalcor had communicated that the actual mitigation could take place after the full flooding.

Again, in your committee, Nalcor were part of that, did anybody from Nalcor ever express the opinion that this wasn't urgent and it could wait until the spring?

K. REIMER: Not directly. I'd have to say that – and you could see that reflected in Nalcor's responses as non-voting members of the Oversight Committee – they didn't believe that mitigation was necessary. So you could argue that there was a lack of

enthusiasm – I guess I'll use those words – and the scientific advisor felt the same way. So I would classify it as a lack of enthusiasm.

How they could have got a firm idea that it could have been done later was certainly not a part of any of the evidence that we had presented at our deliberations. You know, I remember there was some informal musing about the fact that, as I mentioned earlier my testimony today, that sediment remediation – this is what that would be, is covering stuff that's below water – isn't a known technology. I don't know if the engineering report that was eventually produced to look at post-flooding remediation sought such expertise.

That certainly is a known technology. Whether anyone had thought about the ability to get equipment to execute that, I have no idea, but we never made that part of our decision-making process. Everything Nalcor heard at our Oversight Committee meeting, everything our scientific advisor heard, was we need to do this now.

CHAIR: So clearly that was the recommendation of the Oversight Committee; the urgency was expressed on numerous occasions that this needed to get done. There are emails from Nalcor as well later on that they were prepared to do the work in the area where they were. They could cover off 70 per cent of the capping with a revised estimate and they had the equipment and that there.

So were you aware of those emails that Nalcor had sent?

K. REIMER: I was only aware after I read the Auditor General's report, where that information was summarized. What I did see, as I continued to follow this in the media and elsewhere through the period of 2018, is I got a sense that there was a misinformation about the effectiveness of the capping. So I've always wondered

whether that misinformation sort of contributed to the lack of urgency.

By that lack of information, I mean I had mentioned earlier that we had modelled or had modelling done to predict how mitigation might improve the methylmercury situation. We knew that we would probably get about a 20 to 30 per cent reduction in methylmercury from the full mitigation: the soil removal and capping.

Because that modelling takes into account the surface area of the area and the wetlands comprise only a small percentage of that area, the estimates for what effectiveness the capping of wetlands might have was somewhat lower. It was something like 2 per cent, and I read later that in government, particularly during the judicial inquiry, that people thought it would be useless. What's a 2 per cent success rate?

But in all the documents that we had produced and in discussions we had with the Oversight Committee in March of 2018, it was pointed out that the 2 per cent is not an accurate estimate. That, in fact, the importance of capping is that it's the depth of the wetland. Wetlands differ from the soil in that they have organic material that goes down to, in some cases, considerable depth. We did not know the depth, so therefore, it was impossible to integrate that into the model.

What we do know is that from expertise we had on our Committee, that in other reservoirs, such as in Manitoba where wetlands were not covered, that organic material would continue to be mixed up into the water and contribute to the production of methylmercury. So the capping (inaudible) effectiveness, it was going to achieve a much greater (inaudible) be a much greater role than that 2 per cent number suggests.

Yet, what I read was and I got the sense of is that people had either misunderstood or were misinformed about what that 2 per cent number meant. In other words, they did not understand the significance of the capping itself. That probably – well, I shouldn't say probably because I wasn't present. That certainly could have contributed to people's sense of a lack of urgency.

CHAIR: Yes, thank you.

It would appear, from what we've heard from yourself, that that sense of urgency disappeared after the report was presented and your committee was dissolved, for all intents and purposes.

In your opinion, from what I have heard now, clearly wetland capping should have happened and could have happened and needed to happen. Is that a fair assumption?

K. REIMER: Absolutely.

CHAIR: Okay, thank you.

I'm going to swing around again now for some more questions.

**H. CONWAY OTTENHEIMER:** Thank you. Helen Conway Ottenheimer again, Doctor.

Doctor, I'm not a scientist, so bear with me when I ask some questions now about what you just stated because I'm trying to understand the 2 per cent reduction in the wetland capping. We heard yesterday from the senior advisor on methylmercury, Dr. Martin Goebel. In his testimony, he basically said there was reliance on a particular study, a Harvard study, by a scientist, I believe Mr. Calder he said.

Basically, in essence, the conclusion of Mr. Goebel was that there was negligible impact of wetland capping and a 2 per cent reduction. So that goes to what you just stated about perhaps the misinformation and that may cause less in sense of urgency with respect to this happening.

Because when I look at this I don't really understand if we have certain officials and scientists saying that the 2 per cent reduction, really, there wasn't going to be a negligible impact of wetland capping, yet, we also hear conflicting views. He also stated that there was a split decision on the science whether this aspect of the project should go forward.

So is the science clear on this? Is it clear or is that the reason that there may have been misinformation? Is it because there were conflicting interpretations of the science?

**K. REIMER:** The short answer would be no. The science was very clear, as you just stated. We did use models. That's the only way you could do it to predict something that's going to happen three to five years from now.

There was no question in the documentation – and I reread the package we prepared for Oversight Committee members to read prior to our meeting in March of 2018. In it, it shows a table with the fact that if you just covered the wetlands, using only the models we had available and the information for those models, that you could only estimate a 2 per cent reduction in methylmercury.

But there is a follow-on statement in that document in two places that says: but that is a low estimate because we don't know how deep the carbon levels are. It's the carbon that contributes to the production of methylmercury, so more carbon, more methylmercury. We did not know how deep that carbon went and that it likely goes quite far; therefore, the reduction of methylmercury by capping would be far greater than 2 per cent.

That was a point that was stressed in the briefing document to Oversight Committee members. It referenced a separate document in which that (inaudible) was described in more detail, which was available on our website and to Oversight

Committee members. It was discussed. I presented that material at the oversight meeting and I know that I stressed the importance of that, because I certainly was a firm believer in wetland capping.

# **H. CONWAY OTTENHEIMER:** Okay, thank you.

That clarifies, in essence, there was communication about this issue. There wasn't uncertainty. There wasn't confusion. It seems to be that the Oversight Committee was given that information; it was emphasized and stressed. So there would have been knowledge of the science on this wetland capping. That is what you are saying. Is that correct?

K. REIMER: Correct.

**H. CONWAY OTTENHEIMER:** Thank you very much, Doctor.

J. BROWN: Thank you again.

Just for the record so we understand and people who read the transcript later will understand: Can you provide to us, because we keep referring to you as doctor, can you please provide what your background and your education is when it comes to this topic?

#### K. REIMER: Certainly.

I am currently professor emeritus, a retired professor for the Royal Military College of Canada. I also held a cross appointment at Queen's University in Kingston, Ontario. I have a Ph.D. in chemistry, although I have been involved for the majority of my career in what I would call environmental sciences.

For 30 years, I was the director of the group I founded called the Environmental Sciences Group. That group did both basic and applied environmental research. It was one of the largest environmental groups in the country and universities and engaged in both a basic research of the traditional

university value but also applied contract work.

To put that in context. I was a scientific authority of the DEW Line cleanup project. That is the Distant Early Warning Line cleanup project across the Canadian Arctic. That's the first cleanup of radar stations that were built during the Cold War and had the legacy of the environmental practices of the days of the '50s and so on. That was some of the first work ever done in the Arctic and my group helped design that project, and because we were in a university and I had an academic freedom clause in my contract. despite the fact that it was a university within the Department of National Defence, Inuit asked us to do the confirmatory testing to ensure that when the terms of the agreement were being met in terms of removing contaminants, as per the terms of the agreement.

Because work in stakeholders' backyards is so important, I personally participated in over 100 stakeholder meetings, going to Inuit communities, talking about the contamination issues, what risk they posed to health and what the project was going to do.

So that's just one example of over a hundred projects of similar ilk where my interest had been in looking at a project where you look at chemicals in an environment. You have stakeholder concerns, often Indigenous peoples concerns, and you spend that time talking to people, getting effective solutions.

So this project – although my expertise was not in methylmercury, but certainly my expertise is in behaviour of chemicals in the environment. To that sense, I probably was an ideal chair, because I went into the first meeting of the Expert Committee and said I'm not an expert in methylmercury, but I am an expert in how chemicals behave in the environment and how they impact on country food and human health; therefore,

I've got an open mind to the evidence that's going to be presented in front of us.

I'm a quick learner so I knew a lot about methylmercury by the time that project was over.

J. BROWN: Thank you, Dr. Reimer.

Yes, thank you for putting that on the record. We appreciate that.

**L. STOYLES:** Dr. Reimer, I'm assuming now that Nalcor had their own experts. I'm just wondering if your committee of experts and their people all felt the same way about the project and if the capping should happen.

K. REIMER: I would say that Nalcor had their own perspective on whether it was worthwhile or not and I'd have to be (inaudible) because someone had said they didn't think any mitigation – no mitigation was required. Their experts, who were independent scientists on the other hand, including the person who was doing the model for them, the one we had asked to be completed by the time our deliberations were over and it was not completed - I might point I find that very surprising considering I'm sure that more resources could have been put to that. That was a recommendation we made in September of 2017, so I would have thought by the time March came we would have been able to get a full model.

We did get a part model. I would have to say that as we used that model, as well as the one that was developed by Ryan Calder at Harvard, we saw a convergence in the results. That is, to the extent you could compare them, since one was not completed and one was, we saw a convergence in terms of some of the predictions that were coming forward.

The Nalcor model, as I'll refer to it, done by their independent contractor, couldn't answer all of the scenarios that we had

asked of it; it wasn't sufficiently complete. But I saw, as a scientist, convergence in those results that gave me confidence that we were speaking about – we were getting similar outcomes. That made me comfortable that we were in a position to make a decision.

You might realize that, of course, as I held a tie-breaking vote, I had to both have my chair hat on, as well as my scientific hat on. Although I kept my scientific opinions largely to myself and I never had to vote, I had evaluated all the data quite rigorously so I could feel comfortable voting if I had to.

### L. STOYLES: Thank you.

**S. REID:** Yesterday I asked some questions of the witnesses that appeared in relation to the consequences of the capping not going ahead. So I guess I'm sort of interested in your professional opinion, and I know sometimes experts disagree on the implications of things.

But I'm just wondering in relation – there's been some testing that's been done. It's shown that the levels of methylmercury, at least at this point, aren't extremely elevated. So I'm just wondering, based on what you've said about the unknowns involved in terms of the depth of the vegetation and those sort of things, I'd just like to get your views, I guess, or your opinions on is there still some dangers or some consequences of this not happening despite the early evidence. What would you think are the consequences of this capping not happening?

K. REIMER: Well, let me start with your comment. I've heard the comment, in fact from the senior advisor to this project more than once, that the monitoring didn't show any changes. I would disagree. We had a discussion of monitoring with the Committee. We had an independent expert who is an expert in what the meaning of a result is when you take some water and sample it and get a number out. We could

not come to any agreement on – well, I'll say we had disagreement between the report that Nalcor produced from one of their consultants and the independent expert we hired as to what those numbers meant.

So I'm very happy to see that there is now an independent body that will be examining monitoring data going forward. Without getting into the technical details, I think that was absolutely essential, and I'm thrilled that that recommendation of our committee was accepted.

The other point is that the production of methylmercury takes time. In fact, what it (inaudible) not to the actual water, that's a starting point, it's getting back to the food that people consume. That takes time for it to be accumulated in the tissues of the animals, like fish, that people might consume. It's a multi multi-year process for that to get to a stage where the levels would increase to a state where they would cause risk to human health.

So it's too soon. I would argue – and, again, I've not examined the data recently – that the data would be inconsequential at the moment, in terms of making that determination. It would be, I think, irresponsible to suggest that everything is fine. It would also be irresponsible to say it's not fine. We just don't know. The data wouldn't be sufficient and it would be too soon. With that foundation of what I've just said, the question of whether capping is - I felt capping should have been done because I believe that there is this unknown quantity of organic matter that we could have captured and prevented forming methylmercury going forward.

The good news is that the methylmercury levels in the downstream area towards Lake Melville, before inundation, were some of the lowest that I've seen. That's good news. That means we're starting from a low and quite safe point. That means we may have a lot of time and maybe we'll get lucky.

Amongst the members who voted against mitigation, there was a sense that because of the unique characteristics of this particular reservoir, that perhaps the production of methylmercury will not be as great as perhaps the model suggested.

That is one of those scientific questions that can't be answered ahead of time, so we'll just have to see. But I think the really good news is – and I salute the provincial government for putting in place this new committee to monitor human monitoring and human health management, this Oversight Committee. They'll therefore perform a critical role in tracking the information, not just the water results, which are the main things that are published now, but also the fish at various stages of growth and the other consumed items that will be important to people downstream. So I think that it's good to have that insurance policy in place to provide that buffer.

**S. REID:** Okay, thank you again.

Thank you very much.

**CHAIR:** Thank you, Dr. Reimer. That's all the questions that the Committee has. But before I ask you for any final comments, I'd ask the Auditor General if they have anything they want to say or add based on the testimony this morning.

S. RUSSELL: No, I have nothing to add.

**CHAIR:** Thank you, Dr. Reimer. Again, we want to thank you for taking time to appear before the Committee this morning. I really appreciate it. Your knowledge is certainly to be commended and your memory after four years is still quite good, thank you.

I would wonder if you'd like to make any further comments before we end the session.

**K. REIMER:** Thank you for the opportunity to appear. I still do a lot of consulting post-retirement. I'm still engaged doing scholarly

activity. This has to rank as one of the more challenging and intriguing projects I've been involved in. It seems to pop up in one way or another every year or two.

I do hope, and with the appointment of this Oversight Committee, I feel comfortable that things are being examined by an independent body and that will provide the people who were our focus and responsibility that were downstream of the reservoir with hopefully a measure of comfort that an independent body is looking after their concerns.

**CHAIR:** Thank you again, Dr. Reimer. Good morning.

K. REIMER: Thank you.

**CHAIR:** That will conclude our hearing for this morning.

Motion to adjourn.

L. STOYLES: So moved.

CHAIR: So moved.

Thank you so much.

On motion, the Committee adjourned.