

Expert Panel Public Presentation Session
Review of Environmental Assessment Processes

December 5, 2016

Northern Grand Hotel, Fort St. John, B.C.

Expert Panel:

Johanne Gélinas, Chair;

Doug Horswill;

Rod Northey;

Renée Pelletier.

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Opening Remarks

Erin Groulx: My name is Erin Groulx, part of the Secretariat supporting the Panel. Before I pass it over to Johanne, the Chair, I just thought that I would highlight a few things.

Just so you know, the emergency exit would be through those doors. There's another door just behind there. The bathrooms are down the hall to the right.

Please make sure that your cell phones are silent. The first presentation is going to be by teleconference, so we want to make sure that everybody can hear.

Also, there's going to be an audio recording of all the presentations today, and the transcripts will be made available on our website, and you'll have access to that by (inaudible).

And I think that's everything for me, so now over to the Chair.

Johanne G  linas: That's fast.

Good afternoon, everyone. Sorry for the delay. And I will apologize also. If you see us eating a sandwich, it's that we spent the morning on the runway without being able to eat a little something. So if we want to have our mind focusing on your presentation, we need to have a little bite.

My name is Johanne G  linas. I have the pleasure to chair this Expert Panel on Environmental Assessment, and I am accompanied with my three member colleagues, Ren  e Pelletier, on my right, and Doug Horswill, and also Rod Northey.

Let me just explain to you a little bit what this is all about. The first thing you should know is that we have the mandate to look at the three different processes, so it means the one run by CEEA, the other one is the one of the National Energy Board, NEB, and the third one is the CNSC one, which is the Canadian Nuclear Safety Commission. So we look at all these three processes, and our mandate is to come with a proposal of what the Minister of Environment and Climate Change has called a "Modern Day Environmental Assessment" process.

Part of our mandate is to look at the goals and purposes of a "Modern Day Environmental Assessment," and also to engage with a vast group of stakeholders, so indigenous communities, environmental groups, organizations, individual companies. Whomever has an interest in environmental assessment is welcome to participate in our events and share their views with us. And the third part of our mandate, of course, is to get back some time early next year with a report which will contain recommendations. You don't have to be an expert to join us, you have to have an interest and a view, an opinion, and, even better, suggestions to do better in the future.

One word about our website. We have started our journey now 11 weeks ago on the east coast, and we have moved toward the west coast. We still have this week and next week to visit different locations. We still have to do Prince Rupert, Vancouver and Nanaimo, after two days here in Fort St. John, and then we'll be ready to look at all the things that were said to us, and move on.

The one thing that you may find of interest is that as we go, we have produced summaries of what we heard. This is available on the website. Also, all those who have submitted briefs, you can also access those.

We have given until December 23rd to table to us submissions. We don't have them all, but by December 23rd we should have them all. So a few days after the new year, all this material should be also available on the website.

Finally, we got two technical briefing sessions that we called. Both were taking place in Ottawa. One was with all the federal departments involved in environmental assessment, and the other one was with all the provincial authorities responsible also for EAs. We have summaries of those meetings too, which might be of interest for you.

As far as Fort St. John is concerned, we have those formal presentations all afternoon long, and I can tell you that we will probably end this session by 6:30. Right after — we may take an extra half hour — we have the workshop. The workshop is open to anyone, and it's really for you a way to get more into dialogue and answers different questions on how we should improve EA. It goes beyond your main topic, if I may say, that you may present to us this afternoon.

Tomorrow is what we call Indigenous Day. We will have also formal presentations made by people tomorrow, and we have in the evening, if we have enough participants, what we call the "open dialogue session." On both days everybody is more than welcome, and at the end of these two days, again, we will produce a summary, and you will be able to revisit what you have said.

Without further ado, as Erin was saying, we have someone on the phone from Kamloops that we unfortunately were not able to listen to last week. And that was our fault, I should say. Today it's up to — and let me look at my notes — Ms Emma Hodgson.

Are you on the phone, Ms. Hodgson?

Emma Hodgson: Yes, I am. Can you hear me all right?

Johanne Gélinas: Yes. I will probably invite you to talk a little bit louder. Let's give a try.

Emma Hodgson: OK. For me to speak? I have a hard time hearing you, actually, but if I speak louder, is that what you need?

Johanne Gélinas: Yes. And we have your slide deck presentation in front of us. So up to you.

Emma Hodgson: OK, great.

OK, thank you very much. And if anyone cannot hear me or something is going wrong, please interrupt me during this process, because being remote is always challenging.

EMMA HODGSON

Emma Hodgson: I just want to start by saying thank you for organizing this so that I can call in remotely. Also, I think this review is very important, and I appreciate being able to have a place to give some feedback.

My name, as I said, is Emma Hodgson. I'm a Ph.D. candidate at the University of Washington in fisheries ecology. I have been work with some collaborators in Canada. I'm Canadian, but I've also been working with collaborators, two other graduate students, and right now am presenting this on behalf of myself and Adrienne Davidson, who is a Ph.D. candidate in political science at the University of Toronto. I'll be talking a little bit about our work, and then also some recommendations for the Panel.

If you want to advance to next slide, please, slide 2 is the outline of what I'll talk a little bit about, what our work has found, and then some insights from that work to provide some input on some of the themes that are in the review process.

Moving on to the next slide, slide 3 is investigations into changes of the NWPA. We're really interested in looking at the changes that were made specifically to the *Navigable Waters Protection Act* when it was rewritten as the *Navigation Protection Act*. This work was motivated largely from two perceptions that we observed, both in kind of public consciousness, as well as in Parliament, so this idea that when *NWPA* was changed there was a lot of oversight to Canadian water bodies, and then also this notion that environmental assessment creates this administrative burden or red tape. Those might be two kind of contrary ideas, but we noticed that as part of the dialogue after the changes, and we wanted to really look into whether or not those were founded or kind if we could do some research on that.

Advancing to the next slide, slide 4 has our approach that we used. We looked at a third of the environmental assessments that were triggered by the *NWPA* in the period from 2003 to 2012, which was around 800 of the 2,400 triggered by that piece of legislation. Of course, there were obviously a lot of other EAs triggered by other legislation in the process, but this gave us a snapshot to look at.

Advancing to the next slide, slide 5, what did we find from this? I mean there are a number of things we looked at, but relevant for this review, I

think, is that 73 per cent of the assessments were completed in under a year, with an 87-per cent completion rate under two years, and actually over half were completed under six months. The average times of completion across all of the assessments, whether or not they're approved or not approved, was under a year, so 0.95 years. In general, we did an analysis looking at the trend through time, and there was some evidence pointing towards kind of a quicker time to completion during the period that we looked at, from 2003 to 2012.

What can this provide for insights, and how does that contribute to our understanding under the *CEAA* review process? There are two main points. If you advance to the next slide — we're not on slide 6 — we found that because projects were completed — or the assessments were completed in under a year for most projects, and under two for a vast majority, that there might be some kind of overstatement to this regulatory burden, that, in fact, they're actually completed often in a rather timely manner. And then the other notion that we had talked about was this perception that there was a loss of oversight regarding changes to the *NWPA*. We, through our reading and research, discovered that it wasn't actually changes to the *NWPA*, or the new *NTA*, that created this loss of oversight. Rather, there was this whole new paradigm or how environmental assessments are triggered using the designated projects list, and that, in fact, kind of the *NWPA* didn't change it, but the changes to the *CEAA* were what perhaps would create some change in how oversight was allotted to different water bodies. Most of our insights or recommendations are kind of now in relation to that last finding regarding the designated projects list.

If you can advance to the next slide, slide 7, this is just these two scenes that I wanted to say that I will provide insight on, representing my collaboration, so restoring robust oversight and avoiding duplication, and then the last point, really briefly, we wanted to touch on the involvements of experts.

The next slide now, slide 8, with restoring robust oversight, I wanted to talk specifically about the relationship between the *CEAA* and the other federal legislation, and then some relationships to other provincial legislation.

Again, thank you for advancing the slides to the next one. We're now on slide 9. This is the relationship between the *CEAA* and other federal legislation. One of the things that we realized through the process was that, both by the public and by parliamentarians, that the changes to the *Navigable Waters Protection Act* were not well understood. There were discussions in the media, but also we looked at House of Commons debates and found that a number of members of Parliament had that perception: that there was a loss of oversight specifically from the *NWPA*, not ever referring to this notion of the designated projects list or changes to the *CEAA*.

In this regard, we wanted to specifically make the recommendations that when government makes a modification to a piece of legislation,

it's critical to provide the public with sufficient information to understand what the changes are and what the implications of the changes are. And kind of following from that, we specifically wanted to get feedback for the implications of changes to the designated projects list.

So we discovered that was a major change. We didn't do the research to necessarily determine what the consequence of that is, but believe it's really important for the government to do that or to in fact contract someone to do that research, specifically, what is the consequence of the new designated projects list? Are there now projects that will not receive environmental assessment because they are not on that projects list? And is that good or bad? We don't necessarily know. It's possible that it will avoid red tape because projects won't have an impact that are not on that list. But it's also possible that an environmental assessment now will not be conducted in a circumstance where the project would have an impact.

We have three recommendations. One was that if the government already has an understanding of the implications of these changes, like a quantitative assessment of how this shifts environmental assessments, then this should be provided to the public. If not, then this is important to carry out, to do a quantitative assessment of what the implications of that change are, so how many projects don't actually receive an environmental assessment now, and of the projects that don't, do they actually not have an impact on the environment or do they, and therefore should we reconsider this change?

Can you now move to next slide? We're at slide 10. This is the relationship between the *CEAA* and other provincial legislation. We mostly want to talk about this removal of strategic or regional environmental assessments under the new *CEAA*, with potential for a number of consequences. We have read academic literature that suggested there's potential for downloading responsibility onto provinces under the new process. That, obviously, could have a consequence if there's more responsibility there. Obviously, there's this desire to avoid duplication with provincial legislation or provincial environmental assessments. I think that's positive, to not have duplication, but we just need to understand what the consequences are if we remove some responsibility from the *CEAA*.

And then we were specifically interested in this regarding this potential for cumulative effects across projects if there aren't these strategic or regional environmental assessments, and specifically regarding transboundary impacts. "Transboundary" meaning either, literally, on the boundary between a province and another province or territory or also projects could be upstream, so impact could be transferred through rivers or through atmospheric interactions, and so projects need to be really considered in this larger framework, effectively.

Our recommendations were two-fold: one, to really ensure that projects are assessed for cumulative effects across boundaries, so across different provinces or territories, and that the environmental assessment process is really flexible enough to engage with these questions in cases where there could be transboundary effects, or we don't necessarily know, and so need to assess that.

And then kind of my almost final point is the next slide, slide 11. We just wanted to touch on involvement of experts. Specifically, we think that experts could be used in this cumulative impacts assessment framework. Experts in academia and other research disciplines are really pushing the boundaries of our understanding of how to assess cumulative effects, and there seems to be a disconnect sometimes between that approach and what could be carried out, so we want to make sure that if the government is trying to involve experts in a kind of more involved fashion, then that could specifically be used under the cumulative effects assessment portion of environmental assessment.

Just to conclude, if we go to the next slide, slide 12, I think the major takeaway, though, that we really wanted to make is that we really appreciate the government is going through this process, and want to make sure that it's part of government mandates that when a policy change is made that the public is provided information so that they have a strong understanding of what changes actually mean so that they can really provide meaningful input into review processes just like this. There needs to be clarity and transparency, for example, with the designated projects list change here, but it's any change really, so that the public can provide input.

Then with that, I'll just go to the last slide, and say thank you very much. I appreciate the chance to be able to contribute.

Johanne Gélinas: Thank you very much. And, again, our apologies for last week.

I will turn to my colleague, Rod, for a few questions.

Rod Northey: Yes, hi. Thank you very much, Ms Hodgson.

I just want to start by saying thank you for a very, very interesting paper. Your Journal of Science paper, and the detail that you've provided, I don't think we've seen anything the like of it so far. Just on the point of science, and what you've tried to do, very, very helpful.

I have a couple of questions related to some of the things you're dealing with, and related specifically to our mandate going forward. One of them is this. You are making a very strong pitch to get back some transparency and put navigation back into the environmental assessment as a trigger, but I wanted to try and turn to your own expertise, as a Ph.D. candidate, and ask the question: what is it about

putting navigation in place that would do something to improve the quality of EA? Assuming that we put back in place some kind of trigger, what is it you're looking for on the science of an EA that is tied to navigation, if anything?

Emma Hodgson: Sorry, I just want to make sure. It's kind of hard to hear. The question was specifically how —

Rod Northey: Yeah, what —

Emma Hodgson: — putting the triggering mechanism regarding navigation —

Rod Northey: Yeah, something —

Emma Hodgson: — and how it could improve environmental assessment?

Rod Northey: Well, one of the things that's come up in the past, just to give you some insight, is the idea that why is a navigation, as an issue, triggering an assessment of a whole project? They've said —

Emma Hodgson: Yes.

Rod Northey: — "You know, that's just something in the river or a stream or a lake. Why is that triggering a review of everything?" The other thing that is tied to that is what kind of effects are these projects causing, and how do we deal with the federal role in this? There's some major overlap between navigation and fisheries and fish habitat, so I'm trying to — my question of you is: given all the work that you've done, could you help us a little bit and understand what you think the science issues are that should be considered, that don't get considered, if we don't focus and look at navigation better? That's my first question, and I'll just see if you have some thought on that.

Emma Hodgson: Yeah. Umm...sorry, I'm writing this down so that I can have it in front of me so I can think about it.

Yeah, I think that's a fantastic question. I guess our point was less so about the role of navigation specifically in triggering mechanisms. We focused on that legislation because it hasn't received a lot of focus so far in the literature, where the *Fisheries Act* changes had. And, I mean, the *Navigable Waters Protection Act* originally was meant for navigation, as perhaps you were trying to hint at, so in some ways the federal government really did go back to the original mandate, which was to protect navigation.

I guess — I think — I don't necessarily think that it's using the *Navigation Protection Act*, or something like that, to improve environmental assessment. I think it's more we now have this new framework where we don't have

that triggering mechanism, we have the designated projects list. So it's understanding what that change actually means, and if that change isn't something that we want, then we want to go back to this triggering mechanisms, then thinking through kind of what the role of all the triggering mechanisms actually is for inducing an EA.

Rod Northey: Let me just say that often we pose questions that the Chair sometimes calls "homework," if you want to think about this —

Emma Hodgson: Yeah.

Rod Northey: — as homework, but your paper does cover a number of things in a lot of detail. I wasn't really following up on the paper directly, but my second question is more closely tied to your paper.

When you were trying to look at the rationale for including various rivers and lakes as designated or not designated, I know your paper highlights that there was not transparency. You couldn't figure out what the federal rationale was. One of the things I just want to ask, because it wasn't clear in your paper, is: was there an instance of dealing with indigenous people's use of a river or lake? Because one of the things we've heard in several locales so far is that the loss of navigation, as an issue, affects the First Nations or indigenous peoples dramatically because they are still using these rivers and lakes for traditional purposes. Did you have any investigation of that or have anything to illuminate on that? Was that a parameter in the federal framework, if you know?

Emma Hodgson: That's a fantastic question. I didn't see an example of that, and we didn't necessarily look specifically into the detail of, you know, what lakes or rivers are navigated — what is used for navigation and what we define "navigation" as. But I think an incredibly important issue is, yeah, is navigation only for transport, you know, of cargo, or is it for people who actually navigate by a different means, by motor boat or canoe, and for what purposes? And I think that would be an incredible thing to follow up with. I guess I don't have much insight to provide, but I think — yeah, I think that's a great question and a great thing to follow up with.

Rod Northey: Thank you.

Johanne G  linas: Doug.

Doug Horswill: I would like to just explore a little bit the notion of loss of oversight just so I make sure I understand what you've said and what I've read. And I have to admit at the beginning that, unlike my esteemed colleague, I have yet to read your paper, but I will be reading it in due course.

In terms of oversight, your first analysis relates to the number of completions, and the timeliness of them. And then later on, when you get

down to slide 9, you talk a little bit more about the designated project list versus the triggers. But in the course of your comments — and this is what I just want to clarify — I think I heard you say that you're not sure whether reducing the number of assessments actually reduced the effectiveness of the oversight, in that if more concentration was on bigger projects, with bigger impacts, you might end up with a positive answer, so it's kind of an unclear issue at this point in your mind. Am I right on that? Or if not, can you —

Emma Hodgson: Yes, right.

Doug Horswill: — make me right?

Emma Hodgson: Yes. No, you're right. I think one of the things we really tried as academics writing that paper is to approach this from a totally objective point of view. We don't yet know what the consequence of this change is, if it's good or bad. So there is the potential that there are fewer assessments, and the projects that don't receive assessment actually have no impacts, but we need to really make sure that is the case.

Doug Horswill: OK. Thank you.

Emma Hodgson: So, yes.

Doug Horswill: That's good.

Johanne G  linas: And just before we let you go, do you have any examples? In the work that you have done, have you seen any examples of good cumulative effect study that has been done?

Emma Hodgson: Good cumulative effects studies, like in the literature or are done environmental assessment?

Johanne G  linas: Both.

Emma Hodgson: Yeah, I mean, I know — I have talked with other people who've done more reviews of actual environmental assessments using cumulative effects. I, personally, do research on that in the academic literature, and am happy to provide some examples, and also reviews that have covered kind of what has actually been used. So I think there are. It obviously is an incredibly challenging area to actually understand the mechanism, and then the consequence of any decision that we make or the project that we do. But I think we're advancing the field constantly, and so, yes, I can provide — I could send in some literature, if that would be helpful.

Johanne G  linas: That will be helpful, as we are looking at assessing cumulative effects, as an example, at a regional level. Anything that might be useful for us to look at, please feel free to send us the information, and we will look at them.

Emma Hodgson: Great. Yeah, I will.

Johanne Gélinas: And, again, thank you very much for your work. I think you have done this work with a colleague, so send her our best regards, too. Thank you very much.

Emma Hodgson: I will, thank you. And, yeah, thank you for very much, I really appreciate this.

Johanne Gélinas: Bye-bye.

Emma Hodgson: OK, bye.

Johanne Gélinas: I will invite Ken Forest to come and join us for his presentation. I have forgotten to mention that you have 15 minutes. We **had** time to read all the submissions so far, at least the next five, so please focus on the essentials so that we can have a dialogue with you. If you take all your time to read your presentation, then we are limited in entering into a dialogue with you.

saying? Good afternoon. Were you able to listen to what I was

Ken Forest: Sorry, no, I was —

Johanne Gélinas: OK. So I will repeat it because it's important. You have 15 minutes. If you take your entire 15 minutes to read your brief that we already have gone through, we won't have time to get into a dialogue. This is really what we are looking for, so if you can summarize, and then we can have a dialogue together.

The floor is yours, Mr. Forest.

Ken Forest: Thank you very much.

KEN FOREST

Ken Forest: Thank you very much, by the way, to the Panel for coming around. I think this is quite an important venue that you're having here.

My colleagues and I met a little while ago and we spread our topics around, so I'm going to be focusing on one topic. From the slide, you can see that I'm going to be taking a look at the EAs that can assess the sustainability and communities of natural systems, but I particularly want to focus on science. From my point of view, and only from my point of view — I am sure there's lots of points of view — these EAs should be looking at science, the economy, law and ethics. I wish I could say a lot about ethics, but I'm going to actually, today, focus on science.

Could I have the next slide, please?

Johanne Gélinas: You can do it yourself.

Ken Forest: Just touch? Which one?

Unidentified female: Just one of these guys. Yeah.

Ken Forest: Oh, OK. Thank you.

The things that I want to talk about in science relate to three areas. One is the panel compositions, one is the dismissive evidence, particularly with the example of Site C, and I'm going to end off with a comment on climate.

So for the panel compositions. I'm going to read this little statement, and then comment on it, "It would be prudent to ensure that one member at least has, in part, a science background." This comes from my experience. I was the first speaker at the Enbridge hearings in Grande Prairie, and I also gave a presentation to the Site C hearings in Fort St. John. My impression is that panels — and I could be wrong on this because I haven't looked at the composition of all panels — but my impression is that panels tend to have a lot of law professionals, they have industrialists, they have people that are specialized in indigenous backgrounds, but I haven't seen specific science credentials around panel members. Perhaps I'm wrong even on today, but even for the Panel today I'm not sure that there's a lot of science background across the spectrum of this Panel.

The reason I wanted to say that is because — I'll give you two examples. If you're a lawyer, and you're coming at a problem as a lawyer, you tend to come to a conclusion first, and then you start finding evidence to support that. From a science point of view, you start taking a look at evidence, and then you see where that eventually leads. It's not just that kind of thinking, I think, that's important to having a science background for panel members, but it's also if that background could also include ecology, biology, some kind of life science background, then there would be some context within the kind of framework that the panels would bring. I'm sure that there are panels that have science background people on them, but I'd like to see that as almost a prerequisite. I think that kind of thinking is quite important. And science itself is not really intuitive, it's something that's learned. It's a way of thinking and analyzing and understanding.

I'll go to the next slide. I'm coming at this one from personal experience with Site C. The Site C panel found that evidence for the value of long-term agriculture was not relevant or convincing. It was therefore dismissed as an argument in the final summary and their report. When Site C hearings were on here, there was a lot of presentations on the agricultural potential for this valley, the importance of the

valley, and even with the science around the valley, and in the report it was not seen as particularly relevant.

Scientific information is not just a product of experts studying a particular project in a time and a place. It's an accumulation of evidence by multiple researchers and agencies over time, and can be presented by any informed person even with one with a confirmational bias. And confirmational biases everybody has. I have them, and I'm presenting my confirmational bias side of things here right now. I don't have a problem with science being presented with confirmational biases, but I think that once all of the evidence is in that somehow we have to step back from those and see where the evidence has led.

When I gave my presentation at the Site C hearings, I gave a number of citations, and I spent a lot of time doing research around science. What I couldn't do, I didn't have the resources for, and neither did some of the other presenters, is to do specific research on Site C agricultural potential here in the valley. We didn't have the time, we didn't have the expertise and we didn't have the resources. But we did have the ability to take a look at science, itself, and see what it said in general about science and climate and dams and rivers and agriculture, and that seemed to be going by the wayside even though it was presented.

I'm not going to go through the next two slides, other than to show that I have them and you have them, but here's an example of the kinds of science research that I took a look at, and gave presentations on in my panel review on Site C, ones like this. These include things like peer-reviewed papers, papers from advisory panels, from journals, from agencies and from institutes like the United Nations. There's a lot of information that can be had, and because I wasn't a particular expert in science, in agriculture, on this particular project, it seemed to go by the wayside, as did some of the other presenters' material.

The last thing I want to comment on is climate. All assessment panels should have to view project impacts in time frames of centuries, not just a decade or two or three — that's my opinion — and all projects should be viewed through a lens of new and changing climate, because we're hitting some new normals. I think that applies to both mitigation and adaptation. I have to say "mitigation" is a word I would love to discuss sometime, but it's a weasel word. But in terms of those things, I think that climate needs to be part of the overall lens that all projects are seen through.

I just listened even on the news today that over the next 50 years we can expect to see about a 70-per cent increase in major storm events that are dropping water on the planet, and particularly in North America. When that kind of thing is happening, projects need to be taken a look at around that. If Site C is built, we're not looking at next year or 10 years or 20 years, we're looking at 80 years from now, and what the potentials for an ARkStorm are, for instance, for dropping huge amounts of

water into reservoirs that we already have, or even the reverse of that, having 20- and 30-year long-term droughts. I think we have look at all projects in that light.

That's the end of my presentation. Thank you very much.

Johanne Gélinas: Thank you very much, Mr. Forest, for your presentation.

I guess I'm tempted to ask you the first question by asking the following one: how do you define "science" yourself?

Ken Forest: Science, to me, is a way of thinking. It's way of taking a look at a problem and — yeah, of course, you start out with a hypothesis, and you can have a suggestion as an answer, but the real tact is to get as much information around what you're looking for as possible, and seeing where that information leads. That is really the core essence of science: taking a look at data, taking a look at other research and facts, taking a look at what other people have to say, but, in essence, not determining a conclusion until you can see where the information ultimately leads.

Johanne Gélinas: Can you make a parallel between what you just said and the fact that agriculture was almost dismissed by the panel?

Ken Forest: I can't say why it was dismissed — we've had a lot of conversation here around that — but I can say my impression. And I'm going to talk about Harry Swain just for a second. I think he did an excellent job as the panel chair, and right now he's coming out with some problems against in Site C. He had some caveats around things that he wasn't allowed to address during that panel, which I can't get into right now. But from my point of view, he was seeing a lot of things, and you could see these by the kinds of questions that were being asked even by him through an economic lens. An economic lens is a singular lens. It seemed to be maybe a hidden confirmation bias on his part to ask things about all aspects of presentations, but always with a view of what the impact on the economy was. I could be wrong on that, but that was an impression that I had.

Johanne Gélinas: Ideally, what you would have liked the panel to consider with respect to this specific issue, how things could have been different.

Ken Forest: Oh, there's so many things.

Johanne Gélinas: You can go with more of one.

Ken Forest: OK. Well, transparency. If they were going to give a summary in their last final review, I would like to have seen why, for instance, agriculture was not considered, not just that it wasn't. I would like to see specifically some of the — these citations are out of date, so there's contradictory evidence around some of these kinds of pieces of evidence that have been presented, or whatever it

happened to be, not just "Well, we didn't consider this to be particularly relevant."
Thank you.

Johanne Gélinas: Thank you, that's very helpful.

Renée Pelletier: Just a follow-up to that — you may have actually already just answered my question — I wondered whether you knew if the reason the panel did not consider the agricultural issues might have been because of a scoping issue: that it had been scoped out of the project or out of what the panel was going to be reviewing. Do you know at all?

Ken Forest: Yeah — well, I mean, a lot of the information that came in around agriculture came from BC Hydro, and BC Hydro gave very misleading information. They didn't talk about the potential for the agricultural viability of the valley in particular, which is a little microcosm of what you can grow, where you can get cantaloupes and watermelons, tomatoes and cherry trees, they talked about agriculture in general around the piece, and the impact of Site C on a large area. But when you get up in the upper Benchlands, the only thing you can grow up there are canola and hay, and it was a very misleading way of looking at that.

I think that if somebody had had a science background or an ecological background or an agricultural background or something, they would have picked up on that, and they probably didn't.

Renée Pelletier: Right. OK, thank you.

Johanne Gélinas: Go ahead, Doug.

Doug Horswill: How was the scope for the assessment actually developed, do you know?

Ken Forest: I'm sorry, I didn't understand the question.

Doug Horswill: The scope. By "scope," I mean things that are included in the assessment. You've explained to us — or told us that agriculture was excluded. Do you know how the scoping process went, because that might give us some clue as to why certain things were scoped out?

Ken Forest: I'm not clear about the entire way the terms of reference for that were set up; however, one of the difficulties I have with environmental panel reviews the way this one was set up is that it was a joint review between the federal government and the provincial government. The provincial government had a lot of input into what that environmental assessment was going to look like, and they had predetermined conclusions on what the outcome of that was going to be. Because of

that, their terms of reference skewed, I think, the way that panel review should have been set up.

Doug Horswill: Do you know whether or not there was any public input into the terms of reference, either commenting after the fact or —

Ken Forest: You know, this was years ago, and I can't remember, I'm sorry.

Doug Horswill: OK.

Ken Forest: I'd like to, yeah.

Doug Horswill: In terms of the science question, you run through in your chart there a number of different kinds of reports. I guess if we started putting it altogether it would be virtually endless. What advice would you provide on the notion of how you whittle that science down to a manageable amount for a panel to look at?

Ken Forest: I think you might want to step back and take a broader view on that, and that is that when the science is being presented, you could present thousands of citations and papers and journals and abstracts. I think that when anybody, even myself, when I was giving that kind of a presentation, I was giving it with a confirmation bias, and I was looking at supporting the point of view that I wanted. The key for the panel would be to be able to sift through that, listen to multiple numbers of presentations like that, and see if they can pick the pattern out from the entire range of those. Unless you had people off in the background behind you actually taking a look at these and checking them out, I'm not sure how that would work.

Doug Horswill: Yeah, because it gets to be a point of trying get —

Ken Forest: Yes.

Doug Horswill: — to manageability, right?

Ken Forest: Yep.

Doug Horswill: You have to come to an answer at some point. I like your point there, the notion don't make a decision until you see where the science leads. Maybe, in terms of elaborating that thought, what's the end point? How do you know when you're going to arrive at it?

Ken Forest: One of the things about science is that it's open-ended.

Doug Horswill: Yeah.

Ken Forest: Certainly even after a panel review is finished, new science can come in and change some of the things that are happening there. If suddenly we found out there was a climate report coming in that suggested there was a 90-per cent probability of an ARcStorm coming in, and large amounts of water coming into Site C and compromising it, or some earthquake issues around fracking, after the panel review that might change some of the kinds of information that we would look at, even though that was new science.

I think it would be prudent of a person who had the science background to be able to sift through the different kinds of arguments — they could probably be lumped in some ways — and not try and go through everything. You couldn't do it unless you had a huge number of people behind you searching those things.

Doug Horswill: OK. Rather than ask you to answer this now, I'll just leave it as a thought, and if you wanted to add anything in the future to our roster of things. But you talked about climate change, looking forward centuries to see what the impact of climate on a project or a project and climate might be. As we think about it, what I know, which is very little, it seems to me there's a vast uncertainty, and the farther you get from now the more the uncertainty grows. Thinking about that statement that you've made, how do you manage that in a world of uncertainty? Like I say, maybe you don't want to answer that now, but maybe you want to think —

Ken Forest: No, I can —

Doug Horswill: — about that.

Ken Forest: I don't mind answering that.

Science works in probabilities and the probabilities — science is the very best that we have to make determinations on empirical evidence right now, and those probabilities can be given at a specific point in time. The probabilities may change over time. I think we have to go with the very best that we have at the time, knowing that, as new science comes in, we need to be able to change our points of view. Now once a dam is built, it's game over.

I think you just simply have to go with the best evidence that you have at the time on that. I don't think, in the broad range, climate is not going to suddenly reverse itself. The idiosyncrasies of how science is going to play out across different spectrums of the North American continent or the world might change. But the climate is going to change, and it's going to change in a way that I think is pretty well understood.

Rod Northey: Yes, Mr. Forest, I guess a couple of things. I'm a lawyer, so I guess I'll declare that from the outset, and we have another lawyer on the panel —

Ken Forest: Right.

Rod Northey: — but we do have an engineer. Do you consider engineers to be scientists?

Ken Forest: I think engineers are trained in ways to think scientifically in a lot of cases.

Rod Northey: All right. Well, I just note somebody on this panel is an engineer, and I note also — I just went to look at Site C — it also had an engineer on its panel.

The question, though, that I think is more troubling to me is not whether or not the panel has a scientist on it, but I wanted to go to your comment that because you were not a scientist your evidence was dismissed. I want to just do this in a two-part. You advised you appeared before the National Energy Board and the Site C. We've heard a lot about the differences between those two kinds of public events. I wonder if you could just comment on, as a participant, what your experience was in those two fora, and whether you noted anything better or worse between them.

Ken Forest: This Panel has asked me more questions from all of the kinds of presentations I've given in my life, and I'm almost 70, than I've gotten from all the other panel reviews and anything else that I've ever attended. And when I went to the NEB, in Grande Prairie, and I went to one that was here, I didn't get any questions at all. None. I think that the kinds of questions I'm getting right now are even more productive than the presentation I just gave.

Between the two of them, they were courteous, they were polite, they listened, they acknowledged, they nodded, and then I left. I didn't see a tremendous amount of difference.

Rod Northey: It's often said that if — I'm going to say "not often said." Let's go to a different perspective. It would be good if people from the outside, from communities, get together, as yourself, and try and work out a presentation, as I'm hearing today — you're dividing things up — and then come all saying somewhat different things, all trying to be relevant. Did you try and make those kinds of efforts that you're doing here today in front of both panels? I have your answer on whether it worked, but I'm just curious if you did try to, in a sense, split forces and say some important things, all from the community's perspective?

Ken Forest: With Site C, the answer to that was categorically yes. We spent a long time talking about that, even up to years before the presentations. With the NEB, I simply applied. It was in Grande Prairie. I didn't know anybody, it was at a distance, and I couldn't do that, and so I gave my presentation the way that I saw it.

Rod Northey: Well, I'm just going to say I'm glad your experience today was more productive. I'm sorry to hear it that way. If you have any further thoughts for us on — we've heard your hypothesis and the like. I will just simply say many people have made the suggestion that EA should be science-like, and introduce hypotheses than can be tested. So we've heard that, and you'll have to, I guess, wait and see what we say about it. But thank you.

Ken Forest: Thank you very much.

Johanne Gélinas: Thank you very much. And the downside of asking questions is that we're always running late, so —

(Laughter)

Johanne Gélinas: — I'm sorry about that right away. But we'll go through all of your presentations, and we will be listening very carefully.

The next person is Gwen Johansson.

GWEN JOHANSSON

Gwen Johansson: Thank you very much, and thank you to —

Johanne Gélinas: Good afternoon.

Gwen Johansson: — the panel for coming. All of us, I think we really appreciate the fact that you've come.

I won't give you the background, because you have the presentation.

Johanne Gélinas: Mm-hmm.

Gwen Johansson: You can read that. I will sort of indicate the thesis which I would like to suggest is in play, and that is that when a population loses confidence in the institutions that have been put in place to protect the public interest, that population is at risk. I think that we're kind of at that point in Canada because of maybe the complications. There are so many complications now, and life is so difficult, and there's maybe too much knowledge to try and gather to base our opinions. But I do think that we're not in a good place as far as these institutions like the environmental assessment process.

Just to look at the process — and I'll use Site C as an example because that's that most recent one that I participated in — when the majority of the legislation and the policies and so on that had been put in place to protect the

public interest were eliminated, as was done with the BC Utilities Commission and the Agricultural Land Reserve, and various other policies and so on, that basically was the tipping point for certainly myself as to whether we had a robust process in place that we could actually logically consider the merits of the project. My purpose isn't to argue the merits or the lack of merits of Site C here, it's just to point out that those checks and balances were essential to considering that project, and they simply weren't able to be looked at.

The hearing process, I think, should be a quasi-judicial process. I think that testimonies should be given under oath, and it should be subject to full procedural guidelines and safeguards. Because under the present system, I found that if a proponent didn't really want to deal with a question that was brought up, they just didn't, and there was no way of preventing that.

The terms of reference. I know that the environmental assessment panels are not decision makers, and I guess that could be a question that could be debated, but at present, the way our governments are set up, it's not a decision-making process, it's an advisory process. But I do think that if a hearing comes out with the conclusion that they think that perhaps it ought to be, there was a course of action that they would like to make, say if they feel that the project should not proceed, then they should be free to make that. I'm not sure that was within the terms of reference, say, of the Site C project.

I think that proponents have been put in a position — and they're not all happy about this. But it's just that they have been put in a position where they are more or less in charge of most of the material that comes into the panel, and they shouldn't be in charge of the environmental impacts statements or of the studies. They clearly have a vested interest in that project going ahead, otherwise they wouldn't be there. So the decision makers, and those making recommendations on the decisions, should be coming from a neutral body, rather than the proponent.

I think studies should be under the supervision of an independent body. Right now, the way I understand it — and I could be corrected if I'm wrong — I understand that if the reports are completed, say the studies that the proponent has — the proponent puts out the request for proposals for the studies, and hires the consultants that are doing the studies, and lays out the terms of reference. And then when that study comes in it goes to the proponent, and then they — and that's the last, as I understand it, that he sees — the scientist sees of that. It goes to a writer, and then the writer standardizes the language and so on. That's not a good process. That should be eliminated. I don't think that works, because they're surrounded by the proponents for projects, and it's not neutral, in my sense.

The studies should be science-based, and they should be of the highest caliber. I don't want to go through it if you've already had an audience with,

or are going to have, the 350 scientists that have written the letter of concern. I'm not going to go through that. It's quoted in there. But I think that there is a trend that — we're getting — it's sort of as though we've plucked off all the low-hanging fruit, as far as these big projects are concerned, and the ones that are left now are maybe extremely damaging. We can't continue to do that, I think. But I think that what's happening is that as the projects get bigger, and the environmental impacts are greater, then we make more efforts to create a process where we don't have to consider all of those impacts. I think that's kind of a — well, it's a very dangerous place to be, I think, as far as we're concerned.

The playing field is not even when you go into those processes. Proponents have enormous resources to make their argument. That was certainly clear at the Site C hearings, where you went in and the proponent had, you know, the first table — we were the first line of speakers — and then behind them there was a row of about, I think, eight or ten people that were in charge of going through the impact statement, or whatever the literature was, and being able to forward back, and then another row was behind them to support. There was an incredible amount of support that they had.

And sort of, then, the individual that's up there that's trying to make their presentation, they've done all of this on their spare time, by themselves, with no background. And the Canadian Environmental Assessment put out, I think it was, \$19,000 for individual groups to work with, and, you know, it was appreciated certainly, but if you want to come with a scientific study, or any sort of evidence that, you know, will withstand cross-examination, you have to bring in the expert himself, and, quite honestly, \$19,000 doesn't come very far.

One of the things that was done here was we tried to see if we could combine the \$19,000s. That didn't work. So I think there has to be consideration, and that is one thing that I think the panel has to consider, is how you do level out that playing field so that all points of view get a chance to be evenly considered. I'm not sure how you're going to do that, but I have great faith in you.

(Laughter)

Gwen Johansson: Cumulative impacts. I think the question of cumulative impacts has been dealt with very dishonestly. You know, on Site C there were three, really, areas of cumulative impacts. There was the cumulative impact on the Peace Valley itself. There are two dams on it already, and so this would be the third one. That wasn't considered in the cumulative impact because — I call it the Easter Island model of cumulative impacts, because you keep dragging along the baseline all the time. The first dam was created, and that had an impact, and then the second one was created, but the impacts of the first dams, well, that had already been done, so you didn't count those. I mean I just don't think that's a valid way to look at cumulative impacts.

There was also the cumulative impacts resulting from the other industries, the cross industries. We are a highly industrialize area here, with oil and gas and forestry and mining and agriculture and wind farms and various other things, but that also is not considered over the time frame. Anything that was permitted to go ahead was considered, but there was no looking at the land base and saying, "OK, so, you know, here we have" — I'll give you an example, and it's an oil and gas example.

Not too far from here, about a few miles north, there's a quarter section, 160 acres, on which you would not be able to build a house or create a homestead there because of the spider web of pipelines that come in to it, because it's in an area where there's a lot of oil and gas activity. When you get a facility, then, you know, the pipelines have to come in to that from the various wells and so on. That landowner has lost the use of the surface of that land and for whatever he might want to put there. That was never subject to any cumulative impact assessment because it's all individual projects, right?

Oil and gas and other extractive industries have the right of forced entry to go into land in order to develop the subsurface. If a company wants to put a well on a piece of property, then they can go to the Surface Rights Board and get the — if the landowner doesn't agree, then they can go and get the right to go and do that. The surface owner eventually has very little control over what happens on this. In this case, you know, that particular landowner ends up with a piece of property that he has very restricted use of and it's never been something that he asked for or something that he really wanted to happen. That's another way of looking at it.

The other thing for Site C would have been the cumulative impact on the electricity system as a whole, and what the impact on rates will be particularly, and that was never examined. When the report came out, and certainly what Mr. Swain has spoken about since, is that, you know, the impact on rates, and the cost of this thing, is that they didn't have the material — I think the quote was something like, he didn't have the information, the resources or the time to go into that. As a result, on this iteration of Site C, there was never any examination of, you know, the validity of the costs.

I remember very well the sheet of paper that came out when they entered it and when they submitted their environmental impact statement. At that time it was a \$7.8-billion project, and the financial report was 8 ½ by 11 inches, and there was a lot of white space on it, and it just sort of added up to \$7.9 billion. There's never been on this iteration an examination of those costs that was open to the public.

I think that pretty well, I guess, covers — maybe there might be one or two more. The sustainability I will defer to Robert Gibson, who knows far

more about it than I do, and I'm sure that you will have had a presentation from him. So I think that's it. If you have any questions, I'd be happy to try and answer them.

Johanne Gélinas: Thank you very much. We already had the presentation from Mr. Gibson —

Gwen Johansson: Mm-hmm.

Johanne Gélinas: — and you can access that — during our Toronto presentation, right?

(Off microphone)

Johanne Gélinas: Do you want to start?

Rod Northey: All right. Well, let's start with the biography. I think it's Madam Mayor, is it not?

Gwen Johansson: That would be true, but I'm here as an individual.

Rod Northey: All right, I just thought I'd ask. And the other part of your bio that was interesting is you happened to be on the board of BC Hydro —

Gwen Johansson: Mm-hmm.

Rod Northey: — for about a decade.

Gwen Johansson: No, four years.

Rod Northey: Four years.

Gwen Johansson: Four years.

Rod Northey: I misread it, did I?

Gwen Johansson: Well, maybe I made a typing mistake. It could be.

Rod Northey: Oh, I am wrong. All right. Now is this before Site C was in their sights?

Gwen Johansson: Well, Site C has been in their sights since — you know —

Rod Northey: OK. That's what I thought.

Gwen Johansson: — for a very long time, but it was certainly not on the front burner at that time. Natural gas was by far the cheapest source of generation at that time.

Rod Northey: All right. I want to just try and come at a couple of things. The point, I guess, on your cross-examination point, there are lots of competing things happening in hearings —

Gwen Johansson: Mm-hmm.

Rod Northey: — and one of the things that we hear about is that hearings are taken over by lawyers —

Gwen Johansson: Mm-hmm.

Rod Northey: — I've already conceded I am a lawyer, so I'm not terribly happy to hear that — as opposed to a more informal kind of hearing. We've often heard the NEB is an example of the very formalistic legal thing —

Gwen Johansson: Mm-hmm.

Rod Northey: — and that a panel review is less formal and does a better job of inviting participation and encouraging participation —

Gwen Johansson: Mm-hmm.

Rod Northey: — and having people speak. Now your example of the informal is one of the drawbacks to it —

Gwen Johansson: Mm-hmm.

Rod Northey: — which is if the panel is not so interested, you don't have a right to get a question.

Gwen Johansson: Mm-hmm.

Rod Northey: You've seen a lot of things from your experience —

Gwen Johansson: Mm-hmm.

Rod Northey: — and you've given us a recommendation, and you really want cross-examination. I just want to ask you, given that many of your own public meetings as a mayor would be very informal, can you give us a sense of how to do this balance ourselves from your experience?

Gwen Johansson: Well, I do think, you know, that on these big projects you do have to have a quasi-judicial process. I don't think that the informal one works that well. I just think that it was too informal. In other words, you couldn't get at the nub of the question. Maybe you could have cross-examination without lawyers. I don't know whether that's something —

Rod Northey: I actually can tell you I've had clients that have done exactly that —

Gwen Johansson: Mm-hmm.

Rod Northey: — and so, yes, absolutely.

Gwen Johansson: Mm-hmm.

Rod Northey: Anybody can cross-examine. But the question I want to also is it's not as if in Site C the panel did not sympathize with some of the big issues.

Gwen Johansson: Mm-hmm.

Rod Northey: There's sort of multiple layers to examine Site C from, but at the end of it is it the participation angle, which we've heard from comments was not terribly favourable —

Gwen Johansson: Mm-hmm.

Rod Northey: — to the public, there is the question of whether the panel was scientifically expert, but then there's also the question of whether the panel answered the fundamental question, or should have had the mandate to answer the fundamental question and it didn't. There's a lot of issue —

Gwen Johansson: Yeah.

Rod Northey: — Madam Mayor, respectfully. Which one do you think we should focus on? Is it all of them?

Gwen Johansson: Well, I mean you have to try and do the best you can with what you've got, right?

Rod Northey: Mm-hmm.

Gwen Johansson: That's what we all have to do. It's not as though the Site C panel was in any way restrictive. They made an effort. They went out of their way to try and make people feel comfortable in coming forward and asking the questions. But there has to be a way to make sure that all of the scientific information is there, and that

there is somebody on the neutral side that can speak to it. I mean one of the examples here is that the 350 scientists that have now signed that letter, and also I think there's 1,500 or 1,700 early —

Rod Northey: Yes.

Gwen Johansson: — early career scientists, you know, and that information — yeah, and they didn't become involved until later, and they didn't become involved, I suspect, because there was no funds there for that sort of thing. The reason that those 350 scientists are doing that now, I suspect, is because there has been a multi-year grant that was made, that was completely unrelated to his hearing, and that allowed those people to have the wherewithal to go and do some of the studies. They've now been able to critique the studies that were done by BC Hydro and have been, you know, very critical. I think you have seen in the report that they did indicate that they were not well done.

Rod Northey: I'm going to leave it. I have other colleagues with questions. Thank you.

Gwen Johansson: Thank you.

Johanne Gélinas: I have two questions for you. You talked about funding —

Gwen Johansson: Mm-hmm.

Johanne Gélinas: — and being able to hire, if I understand correctly, your own experts.

Gwen Johansson: Mm-hmm.

Johanne Gélinas: We all know that that might be very costly.

Gwen Johansson: Mm-hmm.

Johanne Gélinas: Different people will come with different experts. If the panel was to convey some experts —

Gwen Johansson: Mm-hmm.

Johanne Gélinas: — that you would like to cross-examine or question, would that be an alternative to be able to have that frank dialogue —

Gwen Johansson: Mm-hmm.

Johanne Gélinas: — with some experts?

Gwen Johansson: Well, I think that maybe that might be way to do some of this anyway. You know, the BCUC, for instance, used to have the ability to hire its own experts, and I think that worked quite well because, I mean, there's some of that stuff that is really, really complicated. I mean, you know, like if you're going get into elasticity of electricity rates or something like that, I mean you do need some expertise, and I think it was helpful to have, say, the BCUC be able to do that.

Johanne Gélinas: My second question has to do with the economics of a project. We heard people saying that the environmental assessment should focus on the environment. We have a broad view of looking at the three pillars of sustainability —

Gwen Johansson: Mm-hmm.

Johanne Gélinas: — so including the economics of things. What is your view on that, because you refer to that also? Should we, as a panel, have the opportunity to look at all the elements —

Gwen Johansson: Mm-hmm.

Johanne Gélinas: — including for you, stakeholders, to ask questions on the economics of a project through an environmental assessment process?

Gwen Johansson: Well, I think you have to because there's nobody else that's going to do it. There was nobody else that was doing it on Site C, for instance. The environmental assessment process was the only one that was neutral. Everything else, all the studies, all the financial reports and so on, were done either by BC Hydro or else by the provincial government, which was also the proponent for the project, and that does kind of set Site C apart from some of the other projects that would be looked at. But if nobody else is going to be responsible for doing it, the environmental assessment process kind of has to do it, like, so I think...

Renée Pelletier: Two quick questions. The first is going back to the funding piece. I think you mentioned that you had tried with some people in the community —

Gwen Johansson: Mm-hmm.

Renée Pelletier: — to combine the \$19,000s, and that didn't work.

Gwen Johansson: Mm-hmm.

Renée Pelletier: Was it just logistically you couldn't make it work or were you prevented from combining your resources?

Gwen Johansson: Well, the impression I had from the Office of the Canadian Environmental Assessment Act, was that you couldn't sort of come together. You know, the idea would be that you would have a number of different NGOs or, you know, different groups that would come together under the umbrella of one, and then say, "OK, give us x number of dollars, give, you know, whatever your inclined to give groups, and then we can figure out how to put that to best use to make the case." And, you know, agriculture has been mentioned, and there was an expert that was brought in for that. But that would have been a way in which the local groups could have then decided maybe where their priorities were and where the best bang for the buck was. There's probably problems with that, too, because there would be competition for those funds perhaps.

Renée Pelletier: Right.

Gwen Johansson: You know, it just depends, I think. But I think that would be worth a try.

Renée Pelletier: OK. OK, thank you. And then the other question was your point about EA panels are advisory and not decision makers.

Gwen Johansson: Mm-hmm.

Renée Pelletier: Do you think they should be decision makers?

Gwen Johansson: I think so.

Renée Pelletier: Yeah?

Gwen Johansson: I think so.

Renée Pelletier: OK. Thanks.

Gwen Johansson: Well, the trouble with governments, and governments are good things, you have to have them, but you don't have experts, so you don't have people who have looked at all of the aspects of it. So I think that I would like to give that a try.

Renée Pelletier: OK. Thank you.

Doug Horswill: A little bit more on that same question. If the panel were to become a decision maker or decision-making panels were to be established within a new impact assessment process, what conditions would you put on it? What criteria? How would you see that decision? Is it purely environmental or goes it go beyond that? How would that work?

Gwen Johansson: Well, first off, you have to make sure that you're panellists are well versed in whatever they're going to be considering and that — you know, the selection of the panellists is really important, I think, and they have to be very neutral. There's questions about where they ought to be located. I mean there's pros and cons to having ones that are local versus ones that are from a very long distance away. I sort of favour the concept that if you're going to be a decision maker, you should have to be able to look out the window and see the consequences of your decisions because you'd have to live with the consequences of those decisions. We certainly have to do that at local government, I can tell you. But whether — sort of to go back to — just to rephrase that, because I got off on a —

Doug Horswill: Well, the notion was if they're a decision-making panel —

Gwen Johansson: Mm-hmm.

Doug Horswill: — what range of consideration would they need to be able to examine in order to make that decision? Is it environment alone or is it a much broader suite of issues?

Gwen Johansson: Well, if it is — if you're — if that's the only panel, the only independent panel that's looking at it, then it has to look at the whole gamut. If there's going to be some other body looking at, say, the costs, the finances of it, then you would look at the environmental, and maybe they would look at the economics of it. But if the environmental assessment is the only game in town, then I think you have to look at everything.

Doug Horswill: Just to remind us, in this case the Utilities Commission did not have anything to do with Site C. Is that correct? Were they ruled out in some fashion?

Gwen Johansson: The who?

Doug Horswill: The Utilities Commission —

Gwen Johansson: Yes.

Doug Horswill: — the BCUC.

Gwen Johansson: Yes. Yes, the *Clean Energy Act* of 2010, that was passed by the legislature, exempted Site C and nine other projects from environmental assessment.

Doug Horswill: OK. On another area for a moment, you think a neutral agency or an independent agency should run the environmental impact statement and environmental assessment.

Gwen Johansson: Mm-hmm.

Doug Horswill: Is your reason for saying that perception alone, or do you have specific evidence beyond perception to suggest there are things wrong with the system where the proponent is conducting the EIS/EA work for the panel?

Gwen Johansson: Well, maybe it's a bit of a combination. If I remember right, and I wasn't, you know, completely involved with it, but if I remember right the environmental impact statement was written by BC Hydro, it was submitted to the governments, and they were to look at it and decide what — but it came back, if I remember right — and others that you're going to hear from may be able to answer this better — but it came back, I think, virtually the same as it went in, so I don't think there were any changes that were made to it. Basically, we were dealing with an impact statement that had been designed and written by the proponent.

Doug Horswill: OK. My last question. In terms of regional assessments in this area, going back even as far as the land-use planning process that occurred at the time of the Harcourt government, is there an existing regional plan of any sort, and was Site C considered within it, do you know?

Gwen Johansson: The LRMPs — I think that's what you're referring —

Doug Horswill: Yeah.

Gwen Johansson: — to, right — they were an attempt, you know, to do a regional plan. But if I remember right, and I could be wrong, they were basically brushed aside under a new government, and there hasn't really been a regional plan. The regional district has something of a plan, but not a real resource plan —

Doug Horswill: OK.

Gwen Johansson: — and, actually, because there's been things take away from local governments. You know, we used to have some control over what happened on Crown land, especially if it was within our borders. We don't have that anymore.

Doug Horswill: OK.

Gwen Johansson: Yeah.

Doug Horswill: OK, thank you.

Gwen Johansson: Thanks.

Johanne G  linas: Madam Johansson, I cannot let you go without asking you one very specific question, and it's a question of curiosity on my side. We are in our 12

weeks of travelling around the country. We haven't seen any municipal representative, elected mayor or —

Gwen Johansson: Mm-hmm.

Johanne Gélinas: — administrative people, and you came here yourself as an individual.

Gwen Johansson: Mm-hmm.

Johanne Gélinas: My question to you is the following: where do you see the role of municipalities in assessing those major projects?

Gwen Johansson: Well, I believe that major projects should be considered, that regional or the local government should have a considerable amount to say about them because we're the ones that have to live with them. And many times they're a benefit, and sometimes they're not a benefit, but right now there isn't any avenue, really, to do that. The District Hudson's Hope did make a submission to the Site C panel, and, you know, I think it was of interest to them, but I don't think that there is an avenue, really, by which local governments sort of are made to feel that they can make a difference. We get a lot of things downloaded from senior governments, and they usually come without the means to fund them. But as far as planning for what's going to happen, especially in an area like this, where the resources are so rich, and there's so much that can be taken from here, we don't get much say in how they're developed or how it's done. That, I think, is unfortunate, because I think we actually do have some things that we could offer.

Johanne Gélinas: Thank you very much for your participation this afternoon. Thank you.

Gwen Johansson: Thank you.

Johanne Gélinas: Our next presenter is Randal Hadland.

(Pause)

Johanne Gélinas: Good afternoon.

RANDAL HADLAND

Randal Hadland: Good afternoon.

Thank you, also, from myself, for the opportunity to speak, and thank you for having my earlier submission. You know, basically, I've got the same

submission, I've just added a few things at the front and the back and in the middle. So I will try and even it out and not give you the whole thing again.

I'll be talking about the need for a comprehensive, fair and open review process. Such a process is possible and we need to work towards it.

Our current Prime Minister's father was part of the original round table in the Club of Rome and its limits to growth. Here in the Peace we are fortunate enough to be the guinea pigs for what was perhaps the most comprehensive, fair and open environmental process in Canada. The Site C hearings in '82, which we helped initiate and design, were a starting point for what was to be a new era in energy and environment impact recognition. We've had a lot of pushback from proponents of development at any cost over the last 30 years, and it now evident that the pushback is not relenting. It is obvious from recent governments' decisions on the energy and the environment portfolios that the limits to growth are not yet understood or have been forgotten. We need to work together and identify development that is actually economic. Financial development is not enough. It doesn't recognize the value in social, cultural, intergenerational or ecological development. If those factors are not considered in the same vein, with the same interest, the limits to our growth might sneak up on us faster than we're prepared to deal with them.

We have had demonstrations lately of the need to examine issues from all points of view, and we have had them because people understand that their concerns are being swept under the carpet by corporate demands for profit. We can see that the pendulum has swung too far in favour of shortsightedness and self-interest. In order to restore confidence in the environmental assessment process, it is necessary to have the decision-making material and the decision-making criteria open and available to the public for appeal, and we need this in the new law to make this retroactive to the decisions that have based on material passed under the old legislation, like the recent Site C permit approvals.

The new environmental assessment law needs to provide for a period of time, say six months, during which decisions can be appealed to decision makers, and additional time, if necessary, to allow for procedure and resolution through the courts before any kind of final approval. The final approval that has been granted by the provincial and federal governments before court appeals took place is just the wrong way to approach this.

We've been through different regulatory processes in our efforts to stop Site C. I believe it is fair to say that in each case, including the recent joint review panel, we have been able to show that the proponents did not examine the issues thoroughly enough. Please remember that none of this would be necessary if proponents honestly and thoroughly did what is required in the first place. We know

that self-regulation does not work; therefore, we need a better regulatory review process.

I think there's two options that we have for environmental evaluations. Each proposal could have its own decision about which approach to take. We can from the beginning adopt a collaborative approach, in which all aspects of procedure, participation, impact assessment, benefits and costs, necessity and timeline are dealt with by representatives of all interested parties, with oversight from the environmental assessment agency. On the other hand, we could continue on with a confrontational approach. In either case it is necessary that public, NGOs, First Nations participation in processes, from drafting guidelines and terms of reference, through transparency issues, pre-hearing review of proponent documents, scheduling, intervenor funding, hearing procedures, panel selection, et cetera, must be ensured. This process would then also need to be subject to an environmental assessment agency ombudsman's office dedicated to transparent evaluation of complaints.

We need to consider the impacts on nature. Gwen talked a bit about the cumulative effects. I would just throw in a little different perspective as well: the cumulative impact of each project within the industry, like Site C, which has close to 40,000 acres of soil, habitat, forests, and all their connections under threat of slip sliding under a reservoir — that, in turn, is in addition to the 800,000-some acres that are already in BC Hydro's books as being under reservoirs in this province — and whether those cumulative resource losses adding up impact on the sustainability of our land have reached the limit that we can allow. And, then, as Gwen pointed out, we have to examine the affects of all of the other major industrial impacts in this and any region.

And we need this because we live here. Over the 40 years or so that an amazing number of people and organizations have been trying to find some resolution to the Site C proposal, we have stopped Site C as being not proven in our best interest. We've looked at conservation and efficiency, passive and active solar, solar water heating, micro, mini, community-scale, and mega projects of all the active generation and storage systems for increasing our energy availability. All of these options have their own costs and benefits, and our governments have a responsibility, through public processes, to ensure that we are getting this right and that we're not blindly following bad advice.

It's not enough to say that a private or Crown corporation has found the best answer that they can provide, and so we will examine this to see if it is good for the economy. We need comparables in order to determine value, and evaluating a series of peas in a pod doesn't give us the kind of evaluation we need. We're going to need more than a row of peas in the face of climate change, population growth, and reduced fossil fuel use, so it is important that we look at all the options.

Government decision-making is already based on criteria, so adding sustainability — or substituting sustainability criteria is not as radical as it might seem. A member of Parliament makes a pledge to conduct him or herself in the best interests of the country. The very continuance of our country, and our ability to survive within its sustainable level, has to be the highest of those responsibilities.

The issue of bias, which I addressed, I'd like to just emphasize that I have seen proponents like BC Hydro adopt a consultative process that ignored not just the concerns of public participants, but their own public promises to examine areas of concern, and the guidelines that they themselves developed and agreed to for their environmental assessment reports. This kind of arrogant and dismissive public disengagement is not going to resolve environmental conflicts.

I'll leave it at that. Thanks.

Johanne G elinas: Thank you very much.

Doug, would you like to start?

Doug Horswill: Sure. I'm just catching up with my notes of what you said. I'm going to just go through a couple of different things that struck me for need of clarification or questions.

On the notion of retroactivity, and your changes, could you just amplify what you were getting at there, the notion of retroactivity? Was it simply with respect to Site C? Was it linked up to your appeal process?

Randal Hadland: Oh, I see. I'm sorry, yeah, in particular Site C, because that is what I've got the experience with. I believe that we need to have an option in this coming legislation to go back to require transparency in the decision-making process. We had a reasonably complete hearing on Site C under the review panel. We had a fairly comprehensive report come out of it. The panel, of course, not being a decision-making body, made recommendations, but did not say that it should or should not go ahead. But when the governments made their decision to ahead, they did not release their decisions for it, other than to say that it's in the best interests of Canadians. But there was nothing presented in the panel hearings that indicated that there was an emphasis on the benefits that would create a public interest or be in the benefit of the public interest.

Doug Horswill: OK. So that could have been satisfied if there had been reasons attached to the decision. You may not have liked the decision any more —

Randal Hadland: Yeah.

Doug Horswill: — than you do, but at least you would have understood something about how —

Randal Hadland: It is necessary to have that understanding. It is also, then, necessary to have that option for an appeal.

Doug Horswill: Right.

Randal Hadland: Yeah.

Doug Horswill: You mentioned six months. Is that a thought-out kind of number that would apply in all cases or was it something you felt applicable in this particular case or just something for us to kind of mull over?

Randal Hadland: Mm-hmm. Thank you. Yeah, I think it's more an idea for you to mull over, as a panel. I think that six months would have been plenty of time for the Site C decision.

Doug Horswill: OK. The two options that you suggest, the collaborative, everybody's involved and it's overseen, have you got some thoughts on how that would work, your notion of...?

Randal Hadland: I was one of the initiators of a study that included BC Hydro and the B.C. government and ratepayers' associations and environmental groups and First Nations groups and commercial users and industrial users on Site C as a comparison to conservation. We drew up our own terms of reference, we determined how we would evaluate submissions concerning what was economic and what was not economic, we hired our own staff to do the actual research for us, and then we, upon review, made our own recommendations to the BC Utilities Commission and the government. I mean there are a lot of details that could come out of that, but I'm not sure how deep you want to go with it.

Doug Horswill: It's more process than substance that I'm looking at, but for the purposes of our deliberations it might be interesting if there was anything you could provide us around the process you've just described, how it worked, how you picked the people, that kind of thing. Not so much, as I say, the output, but the process and —

Randal Hadland: Yeah.

Doug Horswill: — the way it worked.

Randal Hadland: I'm hoping to be able to put together more information on that particular topic, and a few others, and I'll try and get those in by the 23rd if that's sufficient for now. Thanks.

Johanne Gélinas: Thank you very much for your presentation.

Randal Hadland: Thank you.

Johanne Gélinas: Our next presenter will be Mr. Ken Boon.

(Pause)

Johanne Gélinas: Good afternoon.

KEN BOON

Ken Boon: Hello. So, yeah, thank you. Yeah, thanks for this opportunity. And, yeah, I did send a longer report, and, you know, you indicated you've gone through those. And I've been —

Rod Northey: Just a minute.

Johanne Gélinas: We haven't gotten yours.

Ken Boon: Oh, OK. Well, I sent it in pretty late last night, so maybe it...

Johanne Gélinas: OK. Anyway, we will be listening, so —

Ken Boon: Oh, OK. OK.

Johanne Gélinas: — no worries.

Ken Boon: OK, so my experience coming here today is, like many others here, going through the Site C process, and lessons we've learned there, and continue to learn, myself, personally, as we're being expropriated for this Site C project from our farmland and our home.

I'll start with the pre-consultation and consultation process. Many of that went through that were very frustrated. The problems there range from — well, I think many of us thought it was going to be almost like a sober look at the project, and would perhaps be an opportunity for the project to actually not even proceed any further. That's the way it was put to us by BC Hydro, when they said — they laid out their five-point plan on how Site C would proceed, and at any one of those steps, at the end of it, they said they would do a review and possibly stop it there, not proceed any further.

But unfortunately, in the case of Site C, it was very evident very quickly that that was not the case, because it was also very evident that the government was really the proponent behind this, in many ways, moreso than BC

Hydro. And I mean we're not just saying that because we're sore losers. You know, that was what came forward from the comments that various government ministers made in the press, that "We need Site C. Oh, yeah, and let's let this review process go on," you know? So they were speaking out of both sides of their tongue.

Anyway, the consultation process had, you know, a lot of limitations. Some of the recommendations that I put forward you'll see out of that. Well, for one thing, the proponent should not be running the process. There should be, you know, independent and unbiased management and control of the public consultation process, and the cost of that should be billed back to the proponent in some way.

Consultation should be sincere and meaningful. And, I mean, I know that's a loaded thing, you know? I mean we hear that all the time, especially with First Nations, you know, what does consultation actually mean?

Public demand and request for public meetings should be granted during that process. What we found in the consultation process was BC Hydro really preferred a public open house scenario, where they'd have a number of people standing around big, flashy colour boards around the room and they could pick you off one at a time, and not have a public discourse take place in the room, where everybody that's there can hear, you know, and be educated from the questions and answers that were being put forth.

I remember one time, actually, in the Site C case where, I think, the group that was there, we commandeered to room and rearranged the tables, and set it up so they had to do a question and answer, but they didn't seem too happy about that.

(Laughter)

Ken Boon: Yeah, the environmental impacts statement. You know, most of the work for this — this was raised earlier — was done by contractors working directly for the proponent, but, at the end of the day, BC Hydro wrote the EIS. This speaks to a question I think Doug gave to Gwen after her presentation. There's a very real danger of a bias being translated into that EIS. For example, my wife and I, we had an opportunity to show a contractor exactly how their work was interpreted in a document put out by BC Hydro, and they were shocked by how it diminished what they thought was the most important and relevant findings from their own study, you know? So there's a real disconnect there from what — you know, and very good people. Obviously, these contractors, they're scientists and biologists, and you name it, you know, and I think for the most part they're doing good work, of course. The problem is what ends up on the documents put forward by BC Hydro or the proponents in any case.

In general, we heard complaints from various experts that the quality of the EIS for Site C was very inadequate. Once, again, a recommendation for that is the proponent should not be writing the EIS.

I've got a whole part of cumulative effects, assessment, natural capital, sustainability, the terms of reference study area, you name it. I'll pass on by that, other than, you know, just here again some notes I seen. You know, my recommendations for that come out with increased funding for those — oh, sorry, OK, I'm moving on to public hearings.

I guess, back to cumulative effects, the main thing there, I think, you know, I think the whole environmental assessment process, the key to it, of course, is what is actually studied and, you know, what comes out of that, especially if, you know, I hear the recommendation the panel will be, you know — or, you know, a consideration, should the panel be the decision maker or the government, ultimately? Well, obviously, it's really important what is in that study, and we really have to expand the cumulative effects assessment, you know, and we have to value natural capital, you know?

For instance, in the Peace River Valley, the David Suzuki Foundation did a very good study of what is the natural capital of the Peace River Valley. You know, it's enormous, and that's not captured at all in the current environmental assessment process. You know, I think, ultimately, at the end of the day, when a decision comes out from a EA process, it should almost be based on almost like a multiple accounts evaluation of valuing all these different things, including the economic, you know, benefits from a project, but you have to also value the economic benefits of the natural capital. Those all have to go into the mix. And I found in the Site C process that was not the case, to the very restricted terms of reference.

The public hearing process. Yeah, I found there was a very lack of capacity for those taking part in hearings to hire experts to present. There were short time frames involved for those to prepare. You know, one problem that became evident, I thought, in the Site C process was pressure and influence on government employees who presented at the hearings, representing various ministries, when the government that they work for is the proponent. And, you know, that was a problem, you know, and there, once again, that should not be the case.

Among other recommendations coming out of this, for me — and that was spoken to as well — is those taking part in hearings should be under oath, you know, and that was discussed already. You know, there's benefits to an informal process. Perhaps the process should be that, you know, experts in their fields maybe should be under oath, and the general public, you know, landowners, First Nations, maybe not so much. I don't know. Like, maybe there should be, you know, two parallel paths there.

But I'll give you an example, though, of where being under oath would be a benefit. Just this past August, at BC Utilities Commission rate hearings, one of the BC Hydro executives that presented as well at the Site C hearings, under oath at those hearings in August for the BCUC rate hearings, basically answered questions that led to the conclusion that there's no economic basis for Site C. There's not business case for Site C. That's not the message that came out during the Site C hearings, when he gave presentations there. But he wasn't under oath there, too. That just demonstrates to me a problem.

OK. Yeah, you know, the decision process. You know, my — yeah. OK, so one of the situations there. I'm also president of the Peace Valley Landowners Association, and we did two judicial reviews of the government's decision to proceed with Site C. And, you know, the B.C. government stated that certain key recommendations from the panel, you know from the report that came out from the panel, when they made the decision to issue the green light for the project, they said those were questions for another day. And those recommendations spoke to the cost, need and alternatives to Site C. Because what the panel said in the case of Site C is that those should go to the BCUC. Of course, we all know that government had exempted this project from the BCUC. But despite that, that's what the panel recommended. That should have some bearing. Irregardless of that, they are recommendations that come out of the panel, you know?

And when that was challenged in court by the PVLA, both in B.C. Supreme Court and the B.C. Court of Appeal, the courts offered conflicting decisions, but both diminished the need for government to consider key recommendations, you know? So here you have a problem coming out of the EA process, and maybe this was more a change of legislation more than anything. Obviously, the courts are struggling with it. Recommendations that come out of a EA process should be required to be considered by the government.

And then I guess I'll just end up — I'm just skimming through here, because this is something I've had a lot of experience with lately, with the conditions that will come out of the certificate, and now that construction has started and they're working, but, of course, they're supposed to be following the conditions that are laid out. We always hear it all so many times, that, you know, governments that to brag that, "Well, you know, there's x number of conditions that come out of this, you know, permit, you know, certificate, so don't worry, everything's going to be fine. They'll have to comply to these." And what we've been finding with Site C is there's a very lack of capacity for CEAA and B.C. EAO to do the compliance and enforcement work, and, basically, there are conditions that are not being followed either at all or not as intended, and there's a lack of consequences for companies who do not comply with those conditions.

You know, truly independent environmental monitors are seldom on site. Companies have monitors, but, of course, you know, you can't help but think, when you're receiving your pay cheque from a company who has you there as a monitor that must compromise your situation. I mean I can't see any alternatives to that. Thankfully, we do have independent monitors, but, unfortunately, they're barely ever on site.

Whistleblowers. I, myself, have had whistleblowers phone me who worked down on the site, who want their identity protected, telling me about, you know, horrible things that are happening down there. And they're not being reported by anybody, obviously, so that's a problem.

The company is normally notified when CEAA and B.C. EAO are scheduled to come on site for inspections. They're usually given a few days' notice. So they can be accommodated and toured around. Well, that obviously is a problem, you know? And one of my recommendations out of that is there should be, you know, more random and surprise visits on site by independent inspectors.

I'll just finish really quickly with the rest of my recommendations on the conditions. I mean conditions should be realistic and serve a purpose. You know, to me it's more important to see realistic, needed conditions, as opposed to a big number of conditions. And I know, you know, the companies, obviously, have to have conditions that they can work with, or else why proceed? You know, if it's impossible for the project to proceed with the kind of conditions that are actually laid on them, obviously that's not going to work. So that has to be considered when conditions are laid on.

There has to be more capacity for compliance and enforcement, with independent monitors on the ground, funded by the project. Online inspection and monitoring reports should be available, and kept up to date. More random, surprise visits. Employees who report infractions, whistleblowers should not be in fear of repercussion for reporting infractions. I think higher levels of consequences to match non-compliance issues, you know? And depending on the nature of the non-compliance, either work should shut down and/or fines should be an option. Because right now, I can tell you, with my discussions with the B.C. EAO, they don't have many tools in their toolbox to deal with non-compliance issues, other than just writing warnings. That seems to be about it, to my knowledge anyway.

Anyway, that's all I got. Hopefully, you know, my written report covers it better.

Johanne Gélinas: Thank you very much. Who, according to you, should do the EIS?

Ken Boon: Well, yeah, that's a good question. And, like, to put it under one body, I'm not sure. You know, obviously right now it's a vast multitude of independent contractors that, you know, contribute to it. Who that one body would be who should write the EIS, I'm not sure. I'm sure there's probably other people that have turned their minds to this more, who — hopefully, Bob Gibson has an answer for that.

Johanne Gélinas: Rod.

Rod Northey: Yes, thank you. I'm just trying to get the sense of this whole BC Hydro example you gave, where the person gives evidence at the panel hearing, and then — was the evidence simply different?

Ken Boon: Well, OK, and I have not gone back myself and looked at what he exactly said during the Site C hearings, but he played, you know, a fairly significant role, stating the financial case of Site C, you know? And I can tell you this much just from my general recollection, it was a different picture than what he gave under oath to the BCUC rate hearings.

Rod Northey: I'm just trying to get a sense of the flavour of the panel hearing, and how it went. The panel was engaged. It has some expertise. I'm just trying to get a sense. Did you feel that the panel was giving appropriate attention to the major areas? I mean everyone will have different views of whether everything was properly done, but did you have a sense? Were you sitting through many of the panel hearings?

Ken Boon: Yeah. Yeah, I did sit though quite a bit, and, I mean, it was very interesting. They had a lot of limitations placed on them. You know, obviously they could not make a determination on whether it went against First Nations' treaty rights. They could not make that call. You know, the terms of reference were pretty bad. Like, as was mentioned earlier, you know, obviously you have all the other cumulative effects in this region, from both oil and gas and the previous hydro-electric projects, and essentially none of that was included. It was with a very narrow focus on this project.

The panel had, you know, major limitations place on them. And despite that, I would say, you know, I thought they did a pretty good job overall, you know? And that's reflected in the recommendations that they put forward. You know, there's a couple of places where they were really buffaloeed in, and that's come up, too. The agriculture was horrible. But, in all fairness to the panel, I would say that — like, BC Hydro essentially invented a whole new way of evaluating farmland, you know, that's never been used before, to my understanding. And, you know, there was no agrologist on that board, and I guess they bought it, you know, whatever, you know despite some very compelling presentations by, you know, individuals and experts speaking against the loss of that farmland, you know, such as Wendy Holm and Evelyn

Wolterson, you know, and speaking to the fact that valley could, you know, supply 1 million people with fruit and vegetables, and, you know, the lost opportunity of agriculture in that valley, you know? Overall, I think it was pretty good that way, though.

Rod Northey: OK. One further question, just a role of government experts. I think it was your suggestion that the B.C. experts, B.C. government experts seemed to be constrained. I'm just wondering, was there a perceived difference you could note between whether a federal expert was saying more than a B.C. expert? I mean we are often told that it's great to have the federal experts evaluating a provincial project, but I'm just wondering, on the ground did that look obvious to you?

Ken Boon: Yeah, OK. So, yeah, provincially, you know — and it's unfortunate. FLNRO, Forest, Lands and Natural Resources B.C., it was very sad. It was actually disappointing to watch their lack of capacity to deal with the Site C hearings. And I think that's unfortunately a result of just provincial government cutbacks on their ministry. You know, they had so little capacity to deal with their role that they were expected to play in the hearings. I thought that was unfortunate.

I did attend in Peace River, where Parks Canada, and I think Environment Canada — I can't remember — dealt with downstream impacts. But, in a sense, you know in that case, it was actually almost like the panel just let people blow off steam down there, because it was really outside of their study area. They were not allowed to look at the impacts of controlled water flow from the BC Hydro dams on the Peace-Athabasca Delta. In a sense that was very interesting presentations down there, but it really didn't play into the recommendations that come out, because it was beyond their terms of reference.

Rod Northey: Thank you.

Johanne Gélinas: Doug.

Doug Horswill: I was interested in your notion of a decision based on multiple accounts. A multiple accounts process you described, and then you enumerated what might be in some of those accounts. Economics generally being one of them, natural capital another, and environment I expect, social impacts. Have you got any particular models that you could share with us around how that might happen? I mean valuing these things is very difficult because they don't have a market price in a lot of cases, and you get to the economist dilemma. Any thoughts on how the tradeoffs get made within those accounts, and between them and among them, and any examples you can point us to?

Ken Boon: Well...yeah, and I'm sure there's a lot of experts. I'm hoping the people who have been — and I know just — and in my presentation that I sent to you folks, I have links in there to some of the presentations that were given at the Site C

hearings by experts on cumulative effects assessment and sustainability, and there's also one on natural capital, analyzing natural capital, and so I'm hoping that the experts that actually this their field would address that more properly.

I know on a personal level, like the fact that BC Hydro now wants to put a road right through our house, and all the other houses and infrastructure in Bear Flats, despite other options for the road, what we've been told by BC Hydro is, "Well, yeah, but we put that through a multiple-accounts evaluation, and this is the route it ended up with." Meanwhile, we want to see that actual multiple-accounts evaluation, you know, so we know why we're all getting booted out of our houses. We cannot get to see that. I know that's separate from you guys, sorry. But, you know, I can see real value in a multiple-accounts evaluation process being put forward, as long as, obviously, you give due consideration to issues such as natural capital and sustainability and so on.

Doug Horswill: Thank you.

Johanne Gélinas: Thank you very much for your presentation.

Ken Boon: OK, thank you.

Rod Northey: Can I just ask a question, sir? We need a copy of the presentation. If anyone who has come in has given presentations, do you mind just checking in to confirm that we've received it? I feel badly, Mr. Boon, we haven't seen —

Ken Boon: Oh, OK.

Rod Northey: — your presentation yet, and I would like to have. Thank you.

Ken Boon: OK, thanks.

Johanne Gélinas: We'll take one more before a short break. I will invite Mr. Neil Thompson to join us. After that we'll take a 10- to 15-minute break, and we still have six presentations after the break.

(Pause)

Rod Northey: Mr. Thompson, I see there is a presentation. Did we just receive it or did it come in earlier?

Neil Thompson: I'm still working on it.

(Laughter)

- Johanne G elinas:** OK.
- Rod Northey:** OK, but —
- Neil Thompson:** I will try to get it —
- Rod Northey:** — something's not here in front of us.
- Neil Thompson:** Well, I brought some slides for you.
- Rod Northey:** That's what I'm wondering. So you just brought them. OK, thank you.
- Neil Thompson:** Yes, these are slides I brought to the Site C presentation. Can you see that OK?
- Johanne G elinas:** We have a screen in front of us.
- Neil Thompson:** Oh, good. All right.

NEIL THOMPSON

Neil Thompson: Well, I'm speaking to it from the aviation perspective. I think, I hope that your Panel would have some aviation expertise. We've not seen it at previous assessments.

Generally what happens, the consultant, who has no background either, will model the impact of a project to the proponent's satisfaction, and that becomes, then, the EIS. But no one with appropriate expertise gets to review their work, so what we've seen with the OSB mill and the BC Hydro process is consultants submitting modelling of what impact will be seen on visibility or low cloud, impacts that will affect the air traffic control zone. That's my perspective, is the air traffic. So my interest would be mist, fog, freezing mist, freezing fog, low cloud, especially in the case of the mill emissions containing water vapour that's hot. So it comes out of the stack and it drifts downwind and cools. Well, somewhere down there it will freeze, in our winters. But if you fly through it before it's frozen with a cold airplane, of course you have ice all over your airplane. Nothing else could happen.

The parameters that they assess generally start around 0.6 of a mile of visibility, which ignores the standards by the World Meteorological Organization and the International Civil Aviation Organization, where they agreed that any phenomenon reducing the visibility to 6 miles or less shall be included in a weather report and shall be included in any aviation weather forecast. But the consultant starts his modelling at 0.6 of a mile, ignoring a parameter of 6 miles, which is important. From the air carrier's perspective, they make a fuel management decision at 6-mile visibility.

If it looks like they're going to have trouble getting in, they will have to carry more fuel to go to an alternate airport, if the forecast is unreliable especially. If you have industrial emissions encroaching your airport control zone, the reliability of the forecast deteriorates rapidly. I've worked in an aviation forecast office. It's not easy to do. But if you have to factor in pollution, it's very much more difficult.

Johanne Gélinas: Mr. Thompson, if I just can make a comment, we are looking at environmental assessment processes across the country, not on a particular project.

Neil Thompson: Yes.

Johanne Gélinas: I don't know where you're going with this information on —

Neil Thompson: OK.

Johanne Gélinas: — aviation, but I think it's related to the lack of expertise when we do assessment of projects. I will invite you to maybe stay at that level, without getting into the detail, because, as you mentioned, we're not experts and —

Neil Thompson: OK.

Johanne Gélinas: — you will lose us.

Neil Thompson: That's fair. I think a simple solution, because it's not reasonable for me to expect you to be experts, would be to have the environmental impact statements reviewed and endorsed by the people who study aviation weather every day. That would be the pilots, the air traffic controllers, the aviation weather forecasters. Search and rescue have a lot of expertise. Endorse their work by the people that understand it, then you don't have to be experts. Then it's endorsed by the people that understand the subject. That would be a very simple solution. That would keep the people who write that impact statement honest. It could not cherry pick the climatological data they use. They couldn't use outdated models, which we've seen.

The modelling ignored the background moisture from the industries that surrounded the airport before this project was proposed. Like, we already had pollution. What should have happened was the impact cumulatively added to the pollution that we already had. But they ignored the existing, which had no credibility in the aviation community. For Hydro to say that the impact will be restricted to within, I think it was, 1 kilometre of the new reservoir, there was just a chorus of laughter at the airport. How could you possibly create a brand new reservoir, and then fluctuate the water level underneath it, and break the ice at least once a week all winter? How could you add heat to the river water downstream? When it comes through the turbines it warms up, so then it'll give more moisture into the air in the valley, creating more fog, right, you know more low cloud, more supercooled liquid, which is an icing issue. No one could believe that.

Johanne Gélina: My colleague has some questions for you, so would you mind if he asks right now?

Neil Thompson: Sure.

Rod Northey: So I've been involved in a few EAs where air navigation's been in play, and Transport Canada has been all over proponents. Where was Transport Canada?

Neil Thompson: Good question. I went to five weeks of the Hydro hearings. Transport spoke for 20 minutes about the *Water Navigation Act*. They did not mention aviation weather.

Rod Northey: All right, let's just back this up a bit. Where is the nearest airport, and what kind? Is it an aerodrome or an airport in relation to the dam?

Neil Thompson: The dam would be about six miles or less from the airport.

Rod Northey: OK. The one that I probably came in —

Neil Thompson: Yeah.

Rod Northey: OK. And there are flight paths and all that. It's at one of the regulated airports, with its own flight paths, et cetera, to and from the runways?

Neil Thompson: Are you thinking about the dam?

Rod Northey: No, I'm thinking about the airport, and the airport's intersection with the dam. The airport has runway strips.

Neil Thompson: Yeah.

Rod Northey: OK. Normally, you have a whole zone, generally for a noise contour, but you do it at both ends, coming in, leaving off, and they draw contours around.

Neil Thompson: Yeah, it's a five-mile circle.

Rod Northey: Right. OK, so is the dam just outside that?

Neil Thompson: Yeah, just outside it.

Rod Northey: All right. You are saying, though, that Transport Canada never provided any analysis of the navigation issues associated with the airport?

Neil Thompson: Not at the hearing. What they did behind the scene we don't know, but the joint review panel had no benefit except what was said at the joint review, which was nothing about aviation weather.

Rod Northey: And so there was Environment Canada, that also has a meteorological office —

Neil Thompson: Yeah.

Rod Northey: — and they spoke, and did they connect the dots between the dam and the airport?

Neil Thompson: Environment Canada train our forecasters, but they spoke a little bit about the modelling, the default settings used in the modelling, to explain that Hydro's consultant didn't know how to set default settings. But then they steered the conversation off to the fish habitat. For 20 minutes they spoke about fish habitat.

Rod Northey: OK. Sorry, I'm not quite done. I know the Chair wants to get back — OK. Let me also try and get back to this. Normally there's an environmental impact statement that's released, and there's usually a process in an EA review where the panel has an opportunity to have all the government agencies review something before a public hearing starts and assess the sufficiency of the EIS. Are you familiar with that stage of it? It's a paper process, but everyone gets a chance to review something, and the government agencies generally provide a written review of an EIS that's in front of the public. Have you ever heard of that?

Neil Thompson: I've read quite a bit of it.

Rod Northey: OK.

Neil Thompson: And then we ask questions, for instance why was the modelling starting at 0.6 of a mile —

Rod Northey: Yeah. I'm actually way earlier in the process. Before you even got to the hearing where you're sitting in front of the panel or asking, the EIS is reviewed and put out for public comment.

Neil Thompson: Yeah.

Rod Northey: Normally, governments provide written comment on their mandate and the EIS —

Neil Thompson: Right.

Rod Northey: — and I think that was done for this, but I can't speak for what we're talking about on aviation. Was it?

Neil Thompson: I saw some of that. They actually asked for input into the EIS, which I submitted. You know, you do the best you can.

Rod Northey: All right, so there was some, but still you don't believe there was anything from Transport Canada on this, and no questions back and forth asking BC Hydro for more information?

Neil Thompson: Well, we still haven't got a straight answer —

Rod Northey: OK.

Neil Thompson: — about why they would start modelling at 0.6 of a mile. Point-six of a mile, we're shut down. We only have one runway that could be used —

Rod Northey: Right.

Neil Thompson: — you know? The other three runways are already —

Rod Northey: Yeah, I'm not trying to ask you all the technical points.

Neil Thompson: Yeah.

Rod Northey: Needless to say, that's ahead of where I am. I'm just not following the departure from — OK, thank you.

Neil Thompson: Well, back to when the mill was being assessed, we had a real environmental assessment board for that. But when you looked to see who were in those chairs, there's no pilot, no forecaster, no air traffic controller. We have the Oil and Gas Commission. We have municipal officials. We have forestry people. There's no expertise on aviation present in the room.

And to make it worse, the person appointed from the waste manager's office — that would be the provincial Minister of Environment — he had a chair on that board, and when they concluded he got out of that chair and he went and sat in the regional waste manager's chair, in an acting position, and stamped the thing approved. How can you do that?

I tried to appeal that, to say that he had not properly addressed his mind to the aviation aspects. In return, I got the longest email of my life from a one-man appeal board, a one-man appeal board in Vancouver, who said — and you're lawyer, you might invent sentences like this. What he said was —

(Laughter)

Neil Thompson: It was unreal.

Rod Northey: I take it that's not good.

(Laughter)

Neil Thompson: Well, I was blown away. What the sentence said was I would not be given standing to present my appeal, even though I had brought two forecasters, two retired controllers, a climatologist — I had it all organized — all go to Vancouver. I will not be given standing to present my appeal because the board has no jurisdiction because I have not been aggrieved more than any other citizen. What was that?

Rod Northey: Sadly, I do know what that language is all about. OK.

Johanne Gélinas: Would you like to have a copy of that long email?

Neil Thompson: Sure.

(Laughter)

Johanne Gélinas: It's an invitation to give us your copy of the letter.

Do you have to present more about this thing, because it's so specific that beyond the fact that there was, obviously, a lack of consideration for your concern for this specific project, I don't think we can very much further?

Neil Thompson: No, we're short on time. This one will help you, I hope. I list on the left visibilities that are important to IKO and World Meteorological people, but point six is where the consultant started.

What I'm trying to show you here is when those rules were established, we said six miles, which I believe was because airplanes were approaching about 60 miles an hour and they thought it was reasonable to give the pilot six minutes to find the threshold, the landmarks, assure himself there's no one on the runway and land. He could do that safely in six minutes. And at three miles, of course, a mile a minute, it's now to three minutes. And as visibility goes down, you get less and less. To three-quarters of a mile, we can still operate. But as you see, even at 60 miles an hour, he only gets 45 seconds to find the threshold and land, right?

But now you have faster airplanes. You have a 120-mile-an-hour approach speed, which cuts that time in half. And then people don't

realize, but when a pilot's looking out the window he can't see straight down. He's look out at about a 45-degree angle. Which cuts the time again.

I don't know if any of you are from B.C., but we had a terrible wreck in Cranbrook, a piece of equipment on the runway. It was a terrible wreck, yeah, and poor visibility.

Johanne Gélinas: It speaks for itself.

Neil Thompson: Oh, yes.

Now, Transport Canada's perspective, I've highlighted the one word in red. I'll give you a minute to read this.

(Pause)

Johanne Gélinas: Can we stop here, Mr. Thompson?

Neil Thompson: You wanted to stop? OK.

Johanne Gélinas: Unless you have something else to tell, but we cannot go through everything on the slide for sure.

Neil Thompson: OK. Well —

Johanne Gélinas: Do you have a conclusion?

Neil Thompson: Only to say that recommended by Transport, it is not enforceable.

Johanne Gélinas: No.

Neil Thompson: And as near as I can find, there is no one who can enforce. It's got to be looked at, and I'm hoping through your processes it could either be a set-back distance between industry and their emissions and our airports, that would be one way to approach it, or, as I said earlier...

(BREAK)

Johanne Gélinas: OK, we are ready start.

Andrea Morison: OK.

Rod Northey: So everyone can wake up, because we have more pictures in this presentation that we ever get in a day.

(Laughter)

Rod Northey: So thank you.

Andrea Morison: OK.

Johanne Gélinas: So thank you very much for joining us. Please.

Andrea Morison: OK. I got this "glasses on glasses off" thing happening —

Johanne Gélinas: Oh. Join the club.

(Laughter)

Rod Northey: So do I. Which one would you like to do today?

Andrea Morison: Well, I'm just going to see close up. I don't know what's over there, but anyway.

ANDREA MORISON

Andrea Morison: My name is Andrea Morison. Thank you for the opportunity to present. I've been a resident of the Peace Country for about 20 years, and my interest in presenting to you stems from my role in facilitating the locally based Peace Valley Environment Association's formal participation in the EA on Site C dam. I also completed a Master's thesis that focused on evaluating the public participation process and practices used in timber management planning in Ontario. This included the design and testing of a model to evaluate the effectiveness of public participation in EA.

My involvement the EA on Site C has left me completely disillusioned with the integrity of the present EA processes, both at the federal and provincial levels. I hope this review will inform the creation of a vastly improved process, for without hope what do we have?

Please keep in mind while you view my presentation that most of what you are seeing is going to be lost and the Peace River will be widened by up to five times along an 83-kilometre stretch. This loss is a startling example of just how flawed our present environment assessment process is, but I do have to note that we are still fighting this dam and it's our hope that we will stop it yet.

I made a number of recommendations in my written presentation, but I don't have time to address them all. I'll just pick out a few here and run along.

My first recommendation is that the Canadian environmental assessment process should be conducted and overseen by an independent body rather than government. As such, I will refer to EA Agency, rather than CEAA, for the rest — oops, what happened? —

Johanne Gélinas: You really go too fast.

(Laughter)

Andrea Morison: — for the rest of this presentation.

Rod Northey: Just wait.

(Pause)

Andrea Morison: Yay, for technical support. Thanks. OK.

So the EA Agency would have a purpose, vision, mandate and criteria to uphold. Additionally, it would be subject to periodic review by other non-partisan agencies and interests to ensure that it's fulfilling its purpose and meeting the needs of Canadians. This is important because we must put the sustainability of ecological systems above our needs and political preferences. We're presently racing toward the demise of the planet, and subsequently the human race. We must figure out how to live in such a way that our needs and desires do not destroy ecological systems that we are fully dependent on. Conducting EAs through an independent body will ensure greater consistency and credibility of the process and reduce the chance that the purposes of the processes are modified or ignored by governments, as they see fit, based on ideological preferences.

This is beneficial both to proponents and the public. The proponents must invest considerable time, money and effort into these processes, which can span over multiple government terms, so they need to know that their efforts will not be snuffed simply based on the change of government. The public deserves the confidence and certainty of knowing that principles which the EA process is meant to uphold will not be ignored based on partisan political ideologies.

My second recommendation is that all decisions on EAs should be transparent and all information and correspondence associated with decisions should be made available online. Under the present federal government-led process, decisions are made by cabinet behind closed doors. The number and scope of significant adverse environmental effects arising from the Site C project are unprecedented in the history of environmental assessment in Canada, and yet the federal government's decision, and reasons for a decision, are not available for any of us to see. To ensure that the public participation process is credible and carried out with integrity, participants should be made aware of how decisions are made, including

how their input has been considered, when they are made, who makes them and what they are.

My third recommendation is that the EA Agency should ensure that it implements the many purposes of undertaking environmental assessment, as stated in the Act, as well as the Act's mandate, with full integrity. I don't have time to go into detail about how most of the statements of purposes presently listed in the Act were not upheld by CEAA in the case Site C; however, I do want to emphasize that it's essential that whatever purposes the legislation states must be adhered to, and evaluation to ensure that this is happening should be conducted.

I do have a number of comments/recommendations about the public participation processes, starting with recommendation number 5: That the EA Agency must create a defined purpose for conducting public participation. In the case of Site C, there was no definition of purpose for carrying out public consultation. Managers of the public participation process must understand why the process is being conducted to effectively design goals, objectives and strategies associated with it. Knowledge of the purpose will make it easier to determine areas of weakness or vulnerability in the process. In the case of Site C, whenever the proponent was asked to justify their consultation efforts, the reply was that the process had been comprehensive, and they always backed that up by adding that they'd held x number of meetings, as if the fact that the meetings were held were proof of how meaningful the consultation was.

My sixth recommendation is that the EA Agency should consider the work of Sherry Arnstein, who developed a ladder of citizen participation in the Journal of American Institute of Planners in 1969, and ensured that public participation is conducted at a partnership level. The purpose of public participation should include an understanding of the degree to which the public is empowered to influence decisions. As you can see by the diagram on the right, the bottom rungs on the ladder represent therapy and manipulation, followed by degrees of tokenism, which is where we're at with the existing CEAA process, and move up to actual integration of citizen input in decision-making on projects.

My seventh recommendation is that once a definition and level of public participation is determined, the EA Agency should develop goals, objectives and strategies associated with various intervals in the EA process to facilitate their ability to ensure they're meeting their defined intentions for carrying out the process in the first place.

My eighth recommendation is that the EA Agency should ensure their public participation process is effective by having independent experts conduct periodic evaluations of the process at pre-established intervals. The evaluations must include input from the public agencies implementing the process, as

well as the proponent. Evaluating public participation programs at certain points during the process provides the EA Agency and the proponent with information on deficiencies before large amounts of money and time have been spent. It also provides the opportunity for timely improvements to the process. Conducting evaluations of the public participation process helps to ensure that the process is seen as credible by the public, which is beneficial to the EA Agency and the proponents.

I skipped ahead to recommendation eleven. The EA process should require the proponent to engage with the public prior to submitting a proposal for EA. This may assist a proponent in gaining greater interest in support of a project, valuable insight may be gained from public perspectives not previously considered, and this, in turn, can help reduce the cost associated with proceeding to EA with an unformed plan. It could reduce the potential for conflict with the public if the public feels their views have been considered and incorporated early in the planning process. This is very appealing to the public. It may also better inform the proponent when they are determining the need for alternatives to and alternative means of a project. In the case of Site C dam, the proponent made the mistake of jumping to predetermined conclusions about all three of these aspects of their proposed undertaking, which continues to be a tremendous source of controversy to this day.

My twelfth recommendation is that all public input received in an EA should be acknowledged and provided with a response. Additionally, it should be made clear to the contributor how their input was considered in decision-making. In the case of Site C, many of us often felt heard by the JRP, but because many of their recommendations were ignored, combined with the fact that there's no requirement for a response to our input and there were no transparent decision-making processes, we were left feeling that our efforts didn't count for much.

My next recommendation is that the proponent of a project should not be the agency overseeing nor making the final decision on the EA associated with its own project. I guess we talked about this a bit, but, honestly, this has got to be about my favourite recommendation. Seriously? The Province of B.C. submits for a dam, and then they make the final decision. That's clearly a conflict of interest.

My fifteenth recommendation: if the federal and provincial governments continue to play a role in EAs, that it should be a requirement that representatives of the ruling parties be forbidden to make any statements during the EA process which clearly support their preferred outcome for the project.

My sixteenth recommendation is participant funding for EAs must be adequate to ensure the public's input can be meaningful. As I think Gwen mentioned, in the case of Site C each participating group was provided the maximum of \$19,000 to participate. Our organization had to pay for a coordinator, a legal team,

subject-matter experts. Given this minimal amount of funding, it meant we had to choose a single area of concern to focus on, when, in actual fact, we had many. So the funding amount was far from adequate. The EA process was demanding and extended over a period of three years. The subject-matter experts and legal team supplied their expertise at considerably reduced rates, and my organization collected cans and bottles from ditches, held bake sale, garage sales, paddles, art auctions, dances and much more to ensure they could participate in this process. Our effort was complemented by a significant number of volunteer hours by our members as well. I spoke to our agricultural experts over the weekend and they advised me that they calculated they actually spent \$360,000 worth of their time to provide expertise for us during those hearings, and they felt they could have used considerably more. It's a lot more than the \$19,000 that was provided.

I would also like to recommend that decommissioning plans for projects should be a requirement of environmental assessments. In the case of Site C, this is a \$9-billion project that will destroy 107 kilometres of river valley, cause massive amounts of river bank erosion and silt to build up, not to mention a kilometre-long, 60-metre high piece of concrete and gravel-filled infrastructure that's only expected to last a hundred years. It's incomprehensible. There is absolutely no decommissioning plan, nor was there any requirement for such a plan in the EA. It was addressed in a single paragraph in the EA, and basically BC Hydro said, "We don't have a plan for this right now, but when the time comes we'll deal with it." Research shows that decommissioning a project of this magnitude often costs at least as much as it does to build it, if not more.

Recommendation — oop, was I behind? Oh, I'm pressing the wrong button, sorry.

OK, eighteen. None of the terms of reference for the joint review panel should be removed after the joint review panel process has commenced, nor after recommendations have been issued. Ken spoke about that.

Recommendation twenty, the joint review panel should be required to make concluding recommendations either for or against projects, not just grey area report and recommendations. It could go either way. And I do feel that they should have the decision-making power.

The last recommendation I just wanted to mention was construction of a project should not commence prior to or while there are decisions being made in court on cases concerning the project. In the case of Site C, both the Peace Valley Landowner Association and area First Nations had, and in the case of the First Nations still have, cases against this project being heard by the courts. Despite this, construction of the dam continues, and I don't feel like this is right.

I'd also just like to emphasize — and Ken discussed it — that there is a need to quantify the value of ecological systems, and have them actually count when looking at things like greenhouse gas emissions, carbon sequestration capacity, et cetera, because I'm just really tired of hearing about how there's so little greenhouse gas emissions with hydro-electric dams. They didn't consider methane either.

Overall, ensuring effective public involvement will contribute to the creation of projects that are affected by more people and provide greater benefits to communities. More importantly, it will ensure that we, as a society, are able to continue to co-exist with the ecological systems upon which our survival depends.

The end.

(Laughter)

Johanne Gélinas: Have you made the assessment yourself, I mean your association, how much money you would have needed to do a proper job?

Andrea Morison: No. No, I just got that figure there, the \$360,000, from the three experts. Those were the three agricultural experts. We had also hired an economic expert, and we gathered up \$10,000 ourselves to pay him. But I know the agricultural assessment experts, like that just gave them enough money to basically respond to what BC Hydro had put forward. They put forward a little bit more. Like the agricultural economist, you know, she calculated that you could provide food for over a million people from the valley. And she put forward a little bit more, but their reports were quite short, and not particularly detailed, because there is just no resources for that.

Johanne Gélinas: Thank you.

Doug Horswill: There's a lot of interesting recommendations here. I'm just going to focus or ask to elaborate a bit on one, recommendation 11, the notion of proponent engaging with the public prior to submitting a proposal for EA. Have you got any thoughts on what the content of that consultation or engagement would be, and how it would work?

Andrea Morison: Hmm, not a lot. I have a lot of concerns and criticisms, not necessarily a lot of answers. You know, basically, I could see it following a similar process to what happens already, but the point being that they're going to get a lot better buy-in if they're seen to be asking for that participation right from ground level. I mean this Site C example is just an extreme example of where they just jumped way ahead of it. You know, they probably could have come up with lot better, more satisfying solutions if they hadn't done that. The public don't like that. They don't like it when they say, "Oh, well, they've already decided on that project, what's the point?"

Doug Horswill: OK, thank you.

Johanne Gélinas: Rod, what have you got?

Rod Northey: All right, I've got a few, thank you.
One, I just want to understand from this very scenic picture how much of this is under water?

Andrea Morison: Ken, why don't you go ahead and point it out? Why don't you go up and —

Ken Forest: Well, at that particular place probably just the bright green field —

Johanne Gélinas: Go to the screen, if you don't mind.

Andrea Morison: Yeah, go to the screen, Ken.

Ken Forest: Oh, OK.

Unidentified Female: And don't forget about statutory rights, Ken.

Ken Forest: Yeah, OK.
(Laughter)

Rod Northey: Just a minute, I have one question.
(Laughter)

Andrea Morison: Watch out.

Ken Forest: Any other input?

Andrea Morison: Ongoing erosion.

Ken Forest: So I think the reservoir line is somewhere around here, right through here —

Rod Northey: OK.

Ken Forest: I think a new highway is going to go through here. But then you got to keep in mind what they call statutory right of way, with sloughing, I think the statutory right of way has basically doubled the size of the footprint of this project, because the unknowns, with the unstable hillsides of the sloughing —

Andrea Morison: It's all clay banks.

Ken Forest: Yeah.

Rod Northey: OK, thank you.

All right, the first question: purposes of EA and the precautionary principle. You may not have an immediate answer, I think it's a pretty tricky question, but many people think that an EA in itself is precautionary because you're supposed to do something before you leap — look before you leap, that is what EA does. So what is it that you would like to think EA does with the precautionary principle?

Andrea Morison: Well, I would like to think that, basically, we don't know everything about how the world works and how ecological systems function, and we have a lot of questions. I would like to be sure that we don't proceed with projects when we don't know answers to critical questions about, you know, what's going to happen and what those impacts are going to be.

I think right now, the way that we operate is, you know, they don't know. "Well, let's do it and see what happens." For example, in the case of this dam, there have been engineering reports that were produced in the 1980s for the BCUC hearings, and one engineering report states 22 times within the report that they don't really know what's going to go on with those clay banks, so they're just adopting an observational approach. So it's "OK, go flood that valley, and just see what happens."

Rod Northey: OK. Thank you.

The idea of doing an evaluation, as you put it, an independent evaluation of the EA while it's going on, we have not heard that suggestion before, and I'm just going to ask a couple of quick questions around it. One, I presume that must be for a large project, which Site C would clearly be, but are suggesting that as a practice generally or for the largest? What was your —

Andrea Morison: I would say as a practice generally it — like, I see that there should be a review of that independent body who oversees and manages it all, that they should have periodic reviews. And then I see that within an environmental assessment process that there's goals, objectives and strategies for each portion of the process, and that you would evaluate those and make sure that you are actually meeting those goals and objectives and the overall purpose.

Rod Northey: Do you want to just assist me a bit? What are the main pieces or stages in the EA, as you see it, just to support that, because everyone's got different view of what it is? One might say planning before you submit the EA — is that

one stage? — submit the EA for written review and government comment a second stage, public hearing's a third stage, something like that, or do you have more stages?

Andrea Morison: OK, so I haven't worked it out.

Rod Northey: OK.

Andrea Morison: In terms of the public participation process, I see that as having an additional evaluation conducted of the process as you're going through the process.

Rod Northey: OK.

Andrea Morison: Yeah.

Rod Northey: All right.

Johanne Gélinas: One more.

Rod Northey: Pardon?

Johanne Gélinas: One more.

Rod Northey: Oh. I will say a bit of shock at the statement that a decommissioning plan was not prepared except on a page, and you said it should required.

Andrea Morison: A paragraph.

Rod Northey: By way of information, the *Canadian Environmental Assessment Act* of '92 required it, and always did require it. I'm a bit puzzled. What didn't happen?

Going to this point about a recommendation pro-con project, I just want to ask you, because there's a back and forth on this. If you say that your panel reviewing this is a science panel, and they stay within the norms of science, that would then stay within the norms of what's acceptable in terms of a scientific answer to a scientific question or a quasi. If you go to, is this project good or bad? That's really not a scientific question, it's a value judgment of some description. One of the tricky issues to wrestle with, we're wrestling with is what is the makeup of this panel? If it's expert plus including ethics and politicians and the like, I mean how do you mix the question of getting the science right, plus being able to impose a value judgment so to speak? Do you think that a panel should have the whole ambit, both?

Andrea Morison: Yes. Yeah, I do.

Rod Northey: OK.

Andrea Morison: I don't think it should be just scientists. I think it needs to be a mix, and I think there should be absolutely no politicians involved in any of this. I mean they just don't have the long-term interests of Canadians as a priority, and they all have different ideological preferences. So depending on who's in, a project goes or doesn't go. And then it could just come up again in four years, and maybe there's a different government in and it would be a different answer.

Rod Northey: All right. Am I done? Yes.

Johanne G  linas: One more.

Rod Northey: All right. I have to ask about your ladder.

Andrea Morison: Oh, my ladder. Yeah.

Rod Northey: Yes.

Andrea Morison: Arnstein's ladder.

Rod Northey: Yes. And I'm allowed only one question. So you put *CEAA* as placation.

Andrea Morison: Well, now wait — well, it's at the — it's below placation, because —

Rod Northey: Oh, you think it's token.

Andrea Morison: — consultation is below.

Johanne G  linas: Yes.

Rod Northey: Yes.

Andrea Morison: Yeah. But, I mean, the whole area, it's all tokenism: placation, consultation or informing, and that's exactly what it was, I mean especially given the fact that there was no documentation — I looked — stating why they were carrying out public consultation. It's not there, so it never said what are we contributing? What are we being asked to contribute? How will it influence decision-making?

Rod Northey: Right.

Andrea Morison: Yeah. Terrible.

Rod Northey: All right, I'm cut off.

(Laughter)

Johanne Gélinas: Can I just ask your association in how many projects you have been involved over the last couple of years?

Andrea Morison: One.

Johanne Gélinas: That's the only one?

Andrea Morison: It's Site C.

Johanne Gélinas: OK. And I have to mention that I can see you did those pictures.

Andrea Morison: I did some of them and — yeah.

Johanne Gélinas: Congratulations. This one in particular is —

Andrea Morison: Thanks.

Johanne Gélinas: — exceptional. Thank you very much for your contribution —

Andrea Morison: OK.

Johanne Gélinas: — and we'll take the time to read again your submission.

Andrea Morison: Great.

Johanne Gélinas: Thank you.

Andrea Morison: OK.

Johanne Gélinas: Our next presenter is Amanda Trotter, and after Amanda we have four more presentations.

(Pause)

Johanne Gélinas: So we don't have any presentation from you.

Amanda Trotter: No, you don't.

Johanne Gélinas: OK.

Amanda Trotter: I have brought it to hand over to you. I have a copy of it for each of you as well.

- Rod Northey:** Do you want to hand it over now?
- Amanda Trotter:** Indeed, I can.
- Rod Northey:** OK.
- Amanda Trotter:** Give me a minute.
- (Pause)
- Johanne Gélinas:** One will be enough.
- Amanda Trotter:** You just want one?
- Johanne Gélinas:** Yes. You don't have it with you?
- Amanda Trotter:** Yes. What would we do without technology?
- Doug Horswill:** Live a happy life.
- (Laughter)
- Amanda Trotter:** Probably.
- Johanne Gélinas:** We're listening to you.
- Amanda Trotter:** Thank you.
- Johanne Gélinas:** You're welcome.
- Amanda Trotter:** I also have to do that glasses things, so you'll forgive me.

AMANDA TROTTER, FORT ST. JOHN WOMEN'S RESOURCE SOCIETY

Amanda Trotter: My name is Amanda Trotter. I'm the executive director of the Fort St. John Women's Resource Society. I'd like to thank you for giving me the opportunity to present to you on Canada's environmental review process from Treaty 8 territory.

I'll focus today on the gender-based analysis that was research by the Fort St. John Women's Resource Society, the final report that was submitted to the Status of Women Canada, and the experience we have as an organization regarding the social impacts of the resource industry on our community. I've included a copy of all of these reports on the USB drive for you.

In October 2011, the Status of Women Canada put out a call for proposals to the Women Living in Rural and Remote Communities and Small Urban Centres Initiative, which was launched to solicit funding applications for projects that promote equality and support the advancement of women and girls living in rural and remote communities and small urban centres. There were two priority areas: economic security and prosperity and the ending of violence against women and girls. The Fort St. John Women's Resource Society applied for the funding and launched the Peace Project, a three-year community-driven initiative to reduce violence against women and girls in Fort St. John. The project was led by the Fort St. John Women's Resource Society, and funded by the Status of Women. The project lasted from March 2012 and ran until March 2015.

A crucial document that came out of the Peace Project was a gender-based analysis of our area, which has long been a hub for the resource industry. The community of Fort St. John has characteristics that stand out from provincial and national averages. All of the following highlights can contribute to violence against women and girls in Fort St. John. These include wages for male workers and couples with children being increased, along with birth rates and teen pregnancy, housing and rental prices, transient population, alcohol and drug use, women with children not being able to be part of the labour force, income disparity between men and women, drug-related offences, rates of violent crimes and the large increased numbers of men and a younger population.

The Amnesty International report titled, *Out of Sight, Out of Mind, Gender, Indigenous Rights, and Energy Development in Northeast B.C.*, published in 2016, conducted over a hundred interviews with service providers, public officials and local community members. They made extensive references to the Peace Project gender-based analysis, and took the further step of conducting research into the impact changes to the land that the resource industry was having on the health, wellness and safety of indigenous women and girls.

Indigenous women and girls are impacted more significantly than anybody else in our community by the issues that I've already highlighted. Furthermore, social service providers struggle to provide adequate services, or to even plan for adequate services in our community, because of the transient nature of our population, a large shadow population that's housed in camps, and the boom-and-bust nature of the resource industry. In our own organization, the bust of our current economy has highlighted the issue of food security. Poverty has a far greater effect on women in our community than it does on men because of the disparity in wages and the lack of access that women have to high-paying jobs. We run an outreach store which provides food, clothing and basic hygiene items for free to the people of Fort St. John. In November this year 634 people accessed food in our outreach store, a 55 per cent increase at the same time in 2015. Frequently the shelves can be emptied within 20 minutes of the outreach store opening its doors. During the summer months people in

our area are extremely generous, donating fresh fruit and vegetables from their farms and gardens to our organization. During the winter months it's just tough. We have to use non-perishable food items, which are trucked in and are subject to the increased costs of living in the north. This is also expensive for our donors in the community to keep providing. The importance of being able to preserve our arable land and being able to grow our own food, and being able to preserve that food that we grow, is an unquestionable necessity.

A recommendation that I have included in the final report of the Peace Project — it was beyond the actual scope and focus of that particular study — was the need to engage with the resource industry on establishing triple bottom-line reporting as a norm within the industry or was a condition of granting licences to operate. It's not adequate for this to be done on a multinational level. This needs to be done at a localized level, taking into account a gender-based analysis, corporate social responsibility, the pre-existing culture of the people in the area, the long-term sustainability of the project, local economic diversification and the values of people that live there. A holistic approach between financial, social and environmental reporting and accountability shifts responsibility onto industry to ensure that they deliver in all three areas, not only on the financial bottom line.

The Government of Canada committed to a gender-based analysis in 1995 by adopting the Beijing Declaration and Platform for Action, which called on governments to ensure that before policy decisions are taken an analysis on the impact on women and men respectively is carried out. This is an essential tool to mitigating the impacts resource development has on our most vulnerable members of our society as it goes far beyond gender and looks at intersecting factors, such as age, education, language, geography, culture and income.

Finally, I would like to address the obligations of the Canadian government and the people of Canada to the indigenous people of this land. It is a responsibility for all of us to ensure that the treaties are honoured, that the cultural and spiritual significance that our indigenous people have with the land is acknowledged and respected.

Thank you.

Johanne Gélinas: Thank you very much. And just for the benefit of the audience, the report that you were referring to, the one from Amnesty International, was presented to us in Toronto.

Amanda Trotter: OK.

Johanne Gélinas: Questions?

Renée Pelletier: So thank you, first off, for your presentation.

Amanda Trotter: Thank you.

Renée Pelletier: I'm wondering if your organization has been involved in either — we've heard a lot about Site C today, obviously —

Amanda Trotter: Yeah.

Renée Pelletier: — the review of Site C or any other of the projects in the area.

Amanda Trotter: Not directly into those projects. Understand that what we deal with is the thin edge of the wedge. We deal with the social impacts of the decisions everybody else makes, effectively.

Renée Pelletier: OK, so that kind of leads into what my question was going to be, which was: I wonder to what extent, if any, there was in the review of either Site C or any other project in the area an impact assessment on the issues that you're raising?

Amanda Trotter: Not that I'm aware of.

Renée Pelletier: OK. OK, thank you.

Johanne Gélinas: Doug.

Doug Horswill: I guess it's along the same lines. Can you shed any light on your own thinking on how the social impact assessment and gender impact assessment should be incorporated into impact assessments and projects generally?

Amanda Trotter: I think this research needs to be done on a holistic and collective basis. Again, we start talking about here what is the cumulative impact of all of these projects? Those are the assessments that need to be done. We tend to agree for projects to go right ahead on an individual basis. That collective assessment, I think, is absolutely crucial. And, you know, maybe industry needs to put money aside and actually work in terms of the gender assessments, impact on the community, corporate social investment in a collective manner, as opposed to individually. That way you can have long-term sustainable social programs put into place as well.

Doug Horswill: These issues are obviously value-laden and tricky —

Amanda Trotter: Yeah.

Doug Horswill: — and it gets down to, in some ways, a distribution of who gets the benefits and who bears the costs. Do you think there are ways in which mechanisms could be developed to be able to better balance those two?

Amanda Trotter: I was part of some of these processes in South Africa, where I've come from, and in terms of the Department of Mining and Labour in South Africa, what was requested before a project was passed was extensive. There were extensive environmental plans. There were extensive social and labour plans. The plans didn't only look at what happens in your local area, it goes right down to where your workforce is. Plans were also required in terms of labour and people working from the area as part of the projects as well, with the view of them taking over and becoming managers of the project in the long term. I think we need to start looking at some of those kinds of processes.

I'm not saying that is the only and ideal process, but I think we need to a lot further than we are doing to mitigate the social impact. I think if we don't start doing some of these things, we're going to end up, as we have across Canada. We've got tumble-weed towns. You know, if we're not look at diversification, if we're not looking at ways that industry that's already existing can start supporting education and start diversifying economies through educating the people that are living there, you end up with a tumble-weed town. The resource industry collapses, and that's it. So you have, then, fantastic infrastructure, but nobody living there.

Doug Horswill: Thank you.

Johanne G  linas: Rod.

Rod Northey: Yes, thank you very much for not only your presentation, but your studies that you've given us electronically.

I just took a quick look through that just to see what was going on, and I've got a couple of question related to that.

Amanda Trotter: OK.

Rod Northey: A main sponsor that you identify is Status of Women Canada.

Amanda Trotter: Yes.

Rod Northey: The first question is this: in dealing with this, the Government of British Columbia, it's often said the federal government has a limited jurisdiction to look at social stuff and it should stay out of this, and that the province should given the lead to do the things that are local or regional. What is the status here in relation to this discussion you've led and studied and been in the middle of? Where is the Government of B.C.?

Amanda Trotter: The Government of B.C. hasn't really played a part in it at all. That came strictly from the federal government —

Rod Northey: OK.

Amanda Trotter: — you know, through Status of Women. We're not seeing any kind of acceptance of things like gender-based analysis on a localized level at all, and, you know, that's seriously dangerous in terms of making these decisions.

Rod Northey: Do you mind, have you asked the Government of B.C. and they just do not respond? Do they say —

Amanda Trotter: No.

Rod Northey: — no, or what happens?

Amanda Trotter: I have to be honest with you, I've been here for two years.

Rod Northey: OK.

Amanda Trotter: OK? I also come from a country where I've applied for CIDA funding, and the Canadian government were very strict on us in Africa in terms of it. It didn't enter my head that it was not a norm.

Rod Northey: Hmm.

Amanda Trotter: As we've taken the gender-based analysis, and I've started speaking to people, I've realized that people have got no idea what I'm talking about. They have no idea of the mechanism. So, yeah, there's a lot of education that needs to be done around utilizing and working with the gender-based analysis. We certainly are trying to put it on the map now.

Rod Northey: Right. Another question, and it's not a small one. We're part of a panel, and the reference point for this being environmental assessment. What is your opinion, if you have one, on whether a better word for your purposes is "impact assessment," and put the environment on the same footing of social or economic?

Amanda Trotter: I think it's important that you do a holistic approach to all of it, environmental, certainly, in terms — so if we were always required to do things like, you know, reclamation plans with the mining licences, I think the social plans, and how people are affected by the environment, are of critical importance, OK, particularly working with indigenous communities, which we've worked with in Africa and I've certainly worked with here as well, looking at the fallout in terms of what does this mean in terms of our society? I don't think those things can be underestimated. I think they need to be on a par. I think they're really important.

Rod Northey: And my last question, again not a small one, is: in the context — and I guess for those that attend tonight, they're going to hear about three

kinds of environmental assessment or impact assessment: project, regional, strategic, strategic being policy, regional being bigger than a project, and we're hearing a great deal from across the country about the advantages of regional assessment and not just doing project assessments. Have you got any thoughts about what we should be looking at to deal with your specific recommendations here, and how it fits to impact assessment generally? Is it regional? Is it project-based? Is it both? What do you —

Amanda Trotter: No, I think it has got to be on a more regionalized basis, and it has got to be about collective impact. There are also huge advantages to those in terms of industry. What I've seen done in other places is that industry all gets together and starts working collectively on their corporate social investment. OK? They have regular meetings and regular feedback sessions collectively with their communities. Again, this opens up a great deal of transparency and people feel that they are part of the process. Also, in terms of the reporting back, once they start operating on that kind of a basis, on a more collective basis, they can actually give direct statements back to their own communities because most of the people who would be part of those projects are from those communities. That's the difference, you know?

Rod Northey: All right. Thank you very much.

Amanda Trotter: OK.

Johanne Gélinas: Thank you very much for your presentation.

Amanda Trotter: Thank you. Thank you for listening to me.

Johanne Gélinas: I will now invite Ms. Lori Ackerman.

(Pause)

Johanne Gélinas: Ms. Ackerman, I understand that you will wear two hats.

Lori Ackerman: Yes.

Johanne Gélinas: Right?

Lori Ackerman: One hat, two organizations. It's wonderful.

(Laughter)

Johanne Gélinas: What we have agreed upon is that we will let you make your presentation —

Lori Ackerman: Mm-hmm.

Johanne Gélinas: — the two presentations — I guess you have two different ones —

Lori Ackerman: Yes.

Johanne Gélinas: — and we will open up for a question period.

Lori Ackerman: That would be wonderful, because they do dovetail together.

LORI ACKERMAN, MAYOR OF FORT ST. JOHN

Lori Ackerman: First of all, thank you for this opportunity. I'd like to acknowledge that we are on the traditional territory of the Dane-zaa and Treaty 8 people. Sorry, I should have brought a glass of water, but I didn't.

Johanne Gélinas: We have it.

Lori Ackerman: I see that. If it gets desperate — don't worry about it.

Rod Northey: I think it's desperate —

Lori Ackerman: Is it?

Rod Northey: — because you could be here for a while —

Lori Ackerman: OK.

Rod Northey: — and you'll need some water.

Lori Ackerman: As the mayor of this fine city, I welcome you to our community, as well.

The City of Fort St. John first was informed of Site C, that you've heard a lot of today, and initially our technical staff got together with the technical staff of BC Hydro to have conversations. After my election, I asked exactly what the community as a whole was doing about that, because we do have a community that wants to be a community where nature lives, businesses prosper and families flourish. And, of course, the number one issue that we all heard about everywhere we went, every coffee shop, was Site C, and how that was going to impact us.

Our approach was quite simple. We felt that Noah wasn't in favour of the flood, but he built an arch, and that's how he got his precious cargo through that storm. The community's role in this decision-making, as you know, was pretty well nothing. Not only that, this particular project was outside of our boundaries, and so outside of our sphere of influence.

Every community across Canada creates what we know as an official community plan. And it's called a variety of different things across Canada in the different provinces and jurisdictions, but the official community plan is essentially a compass bearing that you're planning on building your community towards. We decided that we didn't need BC Hydro to build us a fabulous community, we already had one. What we needed was for them not to knock us off that compass bearing. We decided to have a conversation, take a proactive approach to protecting and promoting the best interests of our community, so we created a project called Let's Talk Site C. We needed to go through our official community plan, take a look at that compass bearing, and determine how we would connect with our community and how we would talk to them about the impacts and the benefits of this project.

Essentially, we went out to every playground, we went out to every coffee shop, we spoke to Northern Health, we spoke to the RCMP, we spoke to School District 60, we spoke to the Chamber of Commerce, we spoke to every non-profit organization about how this would impact them. Now understand, as others have said, organizations don't always have the ability to deal with this kind of impact essentially because it's not our core business. This project that we have gone through with Site C cost us over \$1 million as the City of Fort St. John. Now, we were compensated somewhat by BC Hydro for the initiatives that we undertook, but that's not our job to do. The citizens essentially said, "If you're going to build it, don't build it on the backs of the local taxpayers." They said, "If it's approved, it'll have short-term consequences on our community during construction, but it will forever alter the future life in Fort St. John because we are not a project."

Simply put council need to confirm that our community would be left better off for the long term, so we created some founding principles, and, as I said, we went out to talk to our community about it. Four of those founding principles were that council would maintain its legitimate authority, that we would have long-term plans that would not be knocked off course, if there were any financial implications that should borne by the project, and any benefits would be consistent with the city's vision, not the vision of the proponent.

We evaluate all future developments based on what we have done. It's been significant, it took a lot of hard work, and some of the things that came from it is a social framework. Ms Trotter just spoke about some of the issues that we're facing. We recognize that and we are working with the — we have just signed a precedent-setting agreement with the University of Northern British Columbia. Their Community Development Institute will be opening an office here. Having the opportunity to have a secondary education institute open and office here, they're going to be able to assist us in walking through this project, and every other project that we will be facing. They're going to be able to take on some of the initiatives that the city is facing as a result of growth.

The Business Council of B.C. did talk about a year and a half to two years ago about the province stepping up to the plate and ensuring that the soft infrastructure and the shared infrastructure is up to date when these types of initiatives are coming forward. Of course, LNG joined the alphabet soup. Whatever is done on the west coast, the Conference Board of Canada has clearly said that at least 3.86 times the investment will happen in this region. So while we have just faced what we've gone through with Site C, we'll be seeing that with LNG moving forward, and a lot of the impacts that will be happening in this region will fly under the radar of the environmental assessment because of the size of the projects. They are small, but they are many.

We are working on a social framework to ensure that our vulnerable and disenfranchised citizens don't fall through the cracks, because municipalities are really the catch basins when the senior levels of government change their policies. We found, working with BC Hydro, that their primary method of mitigation we termed as mitigation by transfer of responsibility. Essentially what they have said is if it's a highway, that's MOT's problem, sorry, Ministry of Transportation; if it's an impact to our health care system, then that's Health's problem; if it's an impact to First Nations compensation, that is the province that deals with that impact, and we have just finally got that from them. BC Hydro is only paying for the administrative cost of land transfer. The actual value of the land that would be transferred would be borne by the province. As well as the RCMP, and not realizing how RCMP was paid for in the Province of British Columbia, we caught them red-handed.

I never even thought to bring everything over that we have done for studies because I just have an SUV, and that would have been filled to the brim. If you are interested in anything that the city has done, I would be more than happy to email that through to your group.

Because of what we went through, we joined with our neighbours knowing that LNG was going to be something that we would be facing. So what we have done is we started a Northeast B.C. Resource Municipality Coalition, and the members of this coalition are the Regional Municipality of the Northern Rockies, the District of Taylor, the District of Tumbler Ridge and the City of Fort St. John. We are also joined by the Chambers of Commerce from northeast B.C., even from communities that do not belong, Energy Service BC, the Northern BC Truckers Association and the Independent Contractors and Businesses Association of B.C., as well, to keep at the 50,000-foot level, our honorary member, Senator Richard Neufeld.

Now...there we go. I'm just going to go through these slides very quickly because they're just really about who we are. We believe that we need to protect and enhance the communities, and build sustainable resource and rural communities in northeast B.C. You have this, so you'll see the coalition goals there. I won't go through each and every one of them. What we are doing, we, as I said, are supporting responsible resource industries and building sustainable with communities

within those industries. We are promoting awareness and education and the realities of resource industries as well.

You've heard that municipalities from my colleague, Mayor Johansson, we don't have a voice, and I think it's vital that we do become equal partners at that table. It's important. It's how we can get our citizens' voices across. Because when we create that official community plan, it is a very intensive consultation we must do with our municipalities to have that done.

Just looking at this picture, I was told many years ago by a former Prime Minister that on any project there's 20 per cent in favour, 20 per cent against and 60 per cent of people saying, "Could you get out of my way, I need to get to work?" That group, I would suggest, are disengaged, and they're disengaged for, I think, a variety of reasons. Perhaps a lot of this stuff is too technical. I heard recently that the fog index used to be grade 8 to 10 when you wrote something, now it's dropped to grade 6. That concerns me.

We are looking at creating a potential charter for having conversations, and what would be those key objectives moving forward. The first one is respect for the rule of law, and that really is clear. When there is law, then we should be respecting it. Decisions relating to our resources and access to world markets should be made in the best interest of what is in the best public interest.

The next one is respecting rights, and that is understanding that our First Nations and indigenous people have rights that must be respected, and ensuring that those decisions by the provincial and senior government take into consideration all of that, plus the broader public as well.

Respect for the environment. The environment must be protected. In this particular case, this is our backyard. We have jobs that will bring people up here, but it is our backyard. It's the quality of life that will keep them here.

And priority needs to be given to the ongoing viability of the resource municipalities. We are the service centres for a lot of what goes on here. We are able, by virtue of the services we provide, to provide a tighter development, so it prevents sprawl, the utilities, the public service, the public safety, the health, the recreation and the cultural aspects of life.

Cumulative resource planning is vital. I'm not sure if you're aware, but the University of Northern British Columbia does have a Cumulative Impact Research Consortium that is doing research right now. They were here just last week and we did have a conversation. They said very clearly we need to look at the negative and the positive impacts of resource development. We need to hear everyone, not just one side. We need to look at what tools we have and what capacity gaps we need to

fill. I was told that LRMP process took a long time just to create the terms of reference, and if that's the case, then we need to get on this, and we need to get on it now. I think our nation has kind of slipped up when it comes to managing with our First Nations neighbours. Someone needs to take the bull by the horns and just deal with these issues so that we can move together. As a former scout leader, you hike at the pace of the slowest hiker, and so it's important to make sure that everyone is brought up to the same level of understanding.

Those are the closing remarks there. I just want to say we do have a Community Measures Agreement with BC Hydro. It is legally binding, and we did that because of the history of this corporation, Crown corporation, in our region. We are creating a social framework because we saw what when on. The consultation process for BC Hydro, I liken it to going out and buying a vehicle. One day the salesman shows you the bumper and the steering wheel, and the next week he's going to show you the turn signal and the front wheels, but we never saw the entire car. It's very difficult when you go to a consultation process that is two hours, four subjects, you're only allowed to speak for half an hour on each subject. And when we got to the Highway 29 alignment, am I concerned about it as a resident of the Peace River? Yes. But when I'm sitting there as the Mayor of Fort St. John, I need to talk to them about the social implications of this project. When we're not allowed to spend more than a half an hour on one topic, but we must talk about all four, there's been no consideration given to local knowledge or the culture. The consultation process was wrong from the beginning, so I don't think that a robust decision can be made.

Thank you.

Johanne Gélina: Thank you very much. For sure we will ask to have the community engagement protocol —

Lori Ackerman: Mm-hmm.

Johanne Gélina: — if it's a public document, which I suppose —

Lori Ackerman: It all is, mm-hmm.

Johanne Gélina: — that will be helpful.

Can you talk a little bit, because you didn't mention anything about it, how you have gone through this joint panel process review or review process?

Lori Ackerman: How did the city go through this —

Johanne Gélina: Yeah.

Lori Ackerman: — process? There was about 12 topics that we felt we were impacted by, and it was everything from just economic development through to hard infrastructure. We did research, we did an enormous amount of research, and it held us in good stead and we were able to presentations on each and every one of those. I think they were a little annoyed that we signed up as many times as we did to present.

Johanne Gélinas: And the fact that you spend the afternoon with us, the fact that you had done your homework, so to speak, so that you can challenge somehow the system, do you think it has made a huge difference?

Lori Ackerman: I think it made a difference in the fact that BC Hydro came to the table to make a Community Measures Agreement with us. I think it didn't help in the fact that a lot of their assistance or their mitigation was arbitrary, when we could show them real numbers and real dollars, for them to turn around and just give us a number with, you know, zeros.

Johanne Gélinas: Well, you say that the fact that it's BC Hydro, so a Crown corporation —

Lori Ackerman: Yes.

Johanne Gélinas: — has made a difference, if it would have been a private company —

Lori Ackerman: A huge difference.

Johanne Gélinas: Yeah?

Lori Ackerman: Yes. And a lot of the other presenters today have talked about the government intervention into some of the issues here. I'm a firm believer going through this process and working with some of our corporations that are looking at doing initiatives here that there's a big difference between a Crown corporation and a corporation's idea of social licence.

Johanne Gélinas: I'll get back later with a few other questions.

Doug Horswill: And is that difference positive or negative, just so we're clear?

Lori Ackerman: I would suggest that my presentation, and everyone else's, it was really a negative experience.

Doug Horswill: This is a broad sort of a question, but it's a very interesting initiative, and I echo my colleague's point that we haven't heard from any municipalities as we've crossed the country thinking about how environmental assessment should

work. And it takes me to a few questions around this area, but the first one I'm going to start with is, I guess, why now? BC Hydro, or its predecessors, have been active in this part of the world for a long, long time, from the Bennett dam on. What are the ingredients that bring to life the kinds of things you're talking about?

Lori Ackerman: Well, I think a lot of it, actually, is that society has seen some changes over the decades. I have a colleague who sits on the table that is renegotiating the Columbia Basin Trust, and they said what they are negotiating now compared to what they were negotiating 50 years ago are completely different because the residents, the citizens of our municipalities, of our region, of our province, of our nation, they have changed their expectations of government and of corporations.

Doug Horswill: In terms of your own involvement, and then now this regional organization, what can we take away from your experience that we could maybe generalize across environmental assessment generally in Canada, and through that process encourage or incent, or whatever, provide incentives toward municipalities getting more involved and engaged? Are there ingredients or criteria or things that are key success factors to getting involvement, or is this just a unique circumstance?

Lori Ackerman: Well, it could be unique in the sense that this project had already started before I was elected as mayor, and nothing started until I became the mayor, so it was at my request that we started getting involved a little more in depth. That is going to change going across the different communities, but I think a lot of that has to do with just the culture of the community, and perhaps the ability for the community to become engaged. Because I talked about the cost of this to the City of Fort St. John. We might have been reimbursed 50 per cent of that million dollars. I think the consultation process needs to be something that is created locally and understands and acknowledges the local knowledge and the culture.

Doug Horswill: OK. My last question. In terms of these sorts of projects there are always winners and losers, and trying to come up with the right answer to balance that out. Any thoughts and guidance you can give us from your perspective on that?

Lori Ackerman: I think that the governments need to understand that they need to quit with the cookie-cutter policy approach. I've always said that policies are really non-existent. They don't fit once you've gone beyond a hundred miles from the 49th parallel. It's difficult to determine how you're going to make your decision, I wish you all luck, but I really do think that when the engagement happens, it has to be local. The consultants should quit using archaic tools of consultation. The International Association of Public Participation has ideas and tools that we have used, as a city. So, heavens, if we have used them as a city, then proponents and different levels of government can certainly engage with their residents a lot better. We've seen some instances where elections have gone completely differently than the pollsters have

indicated, and it's because people that have been telling pollsters that they're not engaged are definitely engaged. We have to find that way to talk to the average person, and that's what we did by going to the playgrounds. It's a summer I'll never get back, but it was great.

Doug Horswill: Thank you.

Rod Northey: OK, I'm struggling where to begin. One of the things that *CEAA* says is a tool to get conversations going with governments is to use a term "jurisdiction." And it defines the term broadly. *CEAA* '92 and '12 actually do not change the term very much. By some readings of it, a municipality would be included in that term. If a municipality were included in that term, then it might be a participant not just like other participants in an EA, but potentially guiding it.

Lori Ackerman: Mm-hmm.

Rod Northey: Did you consider any of that in terms of this, for example doing your own EA of Site C as how it impacted your municipality in calling it an EA?

Lori Ackerman: No, I didn't.

Rod Northey: OK. Because we've seen across the country some First Nations have started to do that: calling themselves jurisdictions and doing their own EAs of projects, and it strike me as an interesting part of this. And as we try to figure out who is or isn't, and we hear a lot of comment about local — and you've made the point fairly vividly — what is the solution to that?

Lori Ackerman: Well, I think that municipalities need to be recognized. I was told that in the *British North America Act* municipalities are pretty much in the same sentence as brothels and asylums —

(Laughter)

Lori Ackerman: — and so that needs to be rectified.

Rod Northey: I think they're a little above that, unless they're all local institutions, but...

Lori Ackerman: The reality is local governments operate at the whim of the province. We operate under the *Local Government Act* and the Community Charter, and so I would really — there's a lot of municipalities out there that don't have the resources, financial and the technical knowledge, to take something like this on. We were just doggedly determined enough to do it, and have decided to join in with our neighbours to make sure that we aren't slid off down some slide of non-existence when the LNG moves forward.

Rod Northey: In terms of this agreement you've reached with BC Hydro, when did that come to fruition in relation to the environmental assessment? Was it after the assessment concluded?

Lori Ackerman: Yes, it was. It was just signed on Earth Day. How appropriate, hey?

Rod Northey: Yes. And what was the reaction or relationship between you and the province while you were trying to negotiate with BC Hydro? Was there any collaboration, co-operation or was it strictly you, as a municipality, dealing with BC Hydro as a Crown?

Lori Ackerman: It was the municipality out on its own, and we were told that I was difficult to get along with, which kind of made my day, but anyways.

(Laughter)

Johanne Gélinas: That's a compliment.

Lori Ackerman: It's — it's — yeah. They did not like what we were doing, but, to be blunt, they didn't elect me.

Rod Northey: Well, to be blunter back, what is it that they found difficult if they weren't doing the same thing themselves?

Lori Ackerman: Well, in the 1980s, I understand, the Municipality of Fort St. John warmly welcomed Site C and didn't ask any questions, and we weren't doing that. We were saying we don't need BC Hydro to build us a great community, we are a great community. We have an official community plan. You will not knock us off of that. Fort St. John has been around in one way, shape or form since Alexander came up the river. We took a different approach to it this time, and I don't think it's something they expected.

Rod Northey: Right. I'm going to put a final marker, and then I'll hand it back to the Chair, who's looking at me.

"One project, one assessment," have you heard that phrase?

Lori Ackerman: Mm-hmm.

Rod Northey: One of the interesting questions it raises is it's supposed to be a phrase about why an assessment shouldn't be duplicative and you shouldn't have multiple parties doing the same thing twice. In relation to what I'm hearing from you, it sounds like whatever was going on, it didn't include what you undertook. Is that

accurate? Was there any respect in which what you were doing duplicated what anyone else was doing, or were you the sole player in the field?

Lori Ackerman: I think we were the sole player because we were representing Fort St. John, although we did provide all of our reports and information. We put it online for our colleagues to take advantage of, if they chose to. I don't think it would have helped if there was two processes, so one process took half the time.

Rod Northey: OK, thank you.

Johanne Gélinas: It's my turn to go with a few more questions. You said at the beginning you put in place this exercise to consult the community, but in the same sentence almost you said, "But I don't think it was our job to do so."

Lori Ackerman: That's right. It should have been the proponent.

Johanne Gélinas: When you look at what you did retrospectively, would you do it again?

Lori Ackerman: Yes. Absolutely.

Johanne Gélinas: And you mentioned also something about the fact that in this area there will be more and more projects, but smaller ones, which might go under the radar.

Lori Ackerman: Mm-hmm.

Johanne Gélinas: Do you have a plan? What will you do when these guys will come to you with their project?

Lori Ackerman: That's where —

Johanne Gélinas: What have you learned?

Lori Ackerman: Yeah. So that's why we started the Northeast B.C. Coalition, and we are already speaking to them about our expectations. The City of Fort St. John, along with all the other municipalities in the region, the Peace River region, as well as the rural areas, have what is referred to as the Peace River Agreement. It used to be known as the Fair Share Agreement. That was to deal with the historical taxation imbalances from the oil and gas industry outside of our municipality. So we are having conversations with — so when we signed the new Peace River Agreement a year-and-a-half ago, the City of Fort St. John signed it with the caveat that the province would not stand in our way to develop any Community Measures Agreements or benefitting agreements with the industry.

Johanne G  linas: And my last question has to do with the \$1 million. What does that include?

Lori Ackerman: The \$1 million that we —

Johanne G  linas: Spent.

Lori Ackerman: — spent? It was hiring the consultants to assist us in determining some of the costs, because we were growing very quickly, 2.7 per cent on average every year, and did not have the staff that could look at things comprehensively, as well as hiring someone to look at the copious amounts of binders for the EIS.

Johanne G  linas: OK, so that doesn't include the studies or the assessment that you have done yourself, or it's part of it?

Lori Ackerman: That's part of it, yes.

Johanne G  linas: OK, that's part of it.

Lori Ackerman: Yeah.

Johanne G  linas: OK. I guess the last thing I would like to say is thank you very much for having taken the time to come and talk to us. It was done in a very candid way, which is very much appreciated.

Lori Ackerman: Thank you.

Johanne G  linas: Thank you.

Doug Horswill: If you're ever looking for another spot, you can always run in West Vancouver.

(Laughter)

Lori Ackerman: How fast would I run? Thank you.

Johanne G  linas: Thank you very much.

We still have two presentations, so Shelley Ouelette will be the next one, and then there will be Rick Koechl.

Shelley Ouellette: Good afternoon.

Johanne G  linas: Good afternoon. We're almost about to say good evening.

Shelley Ouellette: Yep, almost.

SHELLEY OUELLETTE

Shelley Ouellette: Good afternoon. To begin with, I'd like to acknowledge Treaty 8, and that we're on Treaty 8 lands. I'll probably not require the full 10 minutes. It's a pretty small statement.

The environmental review process in Canada, and in particular northern regions in Canada, in my opinion, is a process of failures. Because the north has the majority of the natural resources, our regions are inundated with development, and many of these projects cause environmental damage during their construction and long after the projects are completed. I work in the oil and gas industry, and I see the effects that industry has on our air quality, waterways and the land.

The majority of the local oil and gas development takes place in the boreal forest or the muskeg in the northeast. And the evidence of this failure is visible in the petroleum sheen in ponds, creeks and streams, but before these projects were approved an environmental assessment was completed and an approval process took place. As with any environmental assessment, a panel or a committee is chosen to review the impact the project will have on the surrounding environment, the scope of the project, the terms of reference the panel may look at and the final decisions process that either approves or rejects the project. The panel is usually chosen by the proponent of the project and chaired by a person of the proponent's choosing. The majority of panel members are former CEOs or executives of companies and are considered experts in their fields because they have the business acumen and knowledge of their particular field or business or industry, but not necessarily in the industry of the project. As with the joint review panel for the Site C dam, the Keeyask dam and Muskrat Falls dam, the panel members of each of those projects are Hydro CEOs, consultants, lawyers and other professionals other than environmental experts, environmental scientists or that specific industry's environmental professionals. It would be reasonable to expect the panel or committee members to be experienced in the environment, ecology, agrology or earth sciences to be doing assessments in their field of expertise, not business people, lawyers or consultants, who have no such background. Review panels assessing environment should represent the environment and not the proponent.

One example of this is the assessment for alternatives to the project. In the environmental assessments for the three dams I mentioned previously, each assessment had the exact same wording concerning the alternatives to massive hydro-electric projects, as if they were written by the same panel, and parts of each read like a computer-generated form letter. How can that be if the dams are in different parts of the country, one in B.C., one in Manitoba and one in Labrador?

Another aspect that is similar in the assessment of all three dams is the methylmercury accumulation in the reservoirs. In all three dams it was recommended by the panel that the flood zones be completely cleared, including the topsoil, and the final assessment however indicates that this should only be done if it's cost-effective. That puts a monetary value on human life, as the majority of northern residents across Canada harvest fish, plants and wildlife that are poisoned by the methylmercury. It's also the duty of our government and its ministries to review past projects to establish their impact on the food chain and to mitigate any hazards to protect the public when they approve similar projects. These projects were all approved because they were in the best interest of the public, but I guess that means the best interests of the public not in the vicinity of the project, because to us there is no mitigation for poison food.

Our government does not do its due diligence when it assesses and approves these projects. Not long ago all work in the oil and gas field stopped or was delayed if it interfered with the caribou migration. When that practice ended, the caribou disappeared. The moose and deer are being pushed from their habitat and their numbers are dwindling rapidly. While the panels and committees assess the impacts on fish and wildlife, nothing is done to mitigate that impact. This is not an assessment, it's a permission slip for industry to take precedence over all else. Once a project is approved and built, there's very little in the way of a regulatory oversight. As we saw with the mine at Mount Polley, the citizens of B.C. are still paying the price for that industrial disaster, as is Saskatchewan, with the oil spill in the North Saskatchewan River.

Review panels work hard and cost a lot of tax dollars to bring the impacts of industrial projects to light. One would assume the government would follow the recommendations put forward and do its due diligence for our environment, and the life it sustains, and that doesn't appear to be the case at all. It's the same with the terms of reference for individual projects. The panels are allowed to review some things and not others. If we're going to spend the time and the money to do environmental assessments, the terms of reference should be all-encompassing and not limited. The proponent of projects should not be allowed to pick and choose their terms of reference or what is assessed. If the environment ministry had a list of terms of reference that must be included in every project, and adhered to the recommendations to the best of its ability, it would go a long way to assure the public that it's taking the environment seriously and it values the assessment process. As it is right now, the entire assessment process is a waste of time and money if it's not going to be implemented. If the terms of reference don't include everyone and everything impacted, why bother?

The environment is a two-way street, and it sustains us only if we sustain it. I think we're doing a pretty poor job of holding up our end of that bargain. We can't keep taking and not giving back to it. We owe the earth this respect,

and we owe our future generations a healthy earth, with clean air, fresh water and good lands, oceans and forests to sustain them. We cannot only do better, we have to do better, and very soon. The grassroots movements to protect our environment are not born in the urban centres, they're born in the wilds of nature, where the earth sustains people in the most basic sense. And this is what we must protect first, because it really does come down to the three basic needs of all life on earth: air, water and land.

Johanne Gélinas: Thank you very much.

Any questions?

Renée Pelletier: Yes.

Johanne Gélinas: Oui.

Renée Pelletier: Thank you, first off. I think your presentation raises a number of important issues around monitoring, which is not something we've talked about —

Shelley Ouellette: Mm-hmm.

Renée Pelletier: — yet here today. I'm wondering what is going on with monitoring around here. Are community members involved in monitoring for any of the projects? Is it something that you hear about? I'll just leave it there for that.

Shelley Ouellette: Well, the community is involved only because they're the ones that see the damage being done, and they report it. In B.C. it's a lot of self-monitoring. They're required to report if they have a spill or if they've done environmental damage. We all watch the news. Oil spills happen, and then six or eight weeks later the oil company will report it. Oftentimes they're only reported because a community member has found that out themselves and reported it.

Renée Pelletier: For any of the projects that are currently up and running, are there any kind of formal monitoring committees, with community member representation, like community members working in conjunction with the proponent on a particular committee, let's say?

Shelley Ouellette: I don't believe so.

Renée Pelletier: No? OK. Thank you.

Johanne Gélinas: Doug, do you have a question?

Doug Horswill: The notion of how the panel gets selected, you suggest that it's by the proponent. But can you elaborate on what your thoughts are there or what evidence you're reflecting?

Shelley Ouellette: Yeah. I looked at all three of the dams, because they're all three major, major projects in Canada —

Doug Horswill: Right.

Shelley Ouellette: — and the proponent selected the panels for each one, the proponent and the government, which are both —

Doug Horswill: Oh, OK.

Shelley Ouellette: — they're both proponents of the dams because they both want them.

Doug Horswill: I see. I got it.

Shelley Ouellette: There was no science-based people in the panels —

Doug Horswill: Understood.

Shelley Ouellette: — on the panels. There was lawyers, businessmen, consultants. And sometimes consultants are beneficial, but I think scientists, especially when they're huge projects like that, that impact so much of the environment and the wildlife, those aspects need to be addressed at the very beginning.

Doug Horswill: OK. And my second question. On the terms of reference — you refer to it in a couple of places in your presentation — what guidance could you give us, what suggestions, about how those terms of reference should, in fact, be created?

Shelley Ouellette: Well, with the three dams, because that's what I looked at, the terms of reference are huge, they're just massive lists of things, but they're all pretty much the same, coming from the Canadian government. But when they go down to the provincial government, a lot of those terms of reference that the federal government puts in, the provincial governments take out, and then the panels are not allowed to review those parts of the federal list. If the federal government had a list that the proponents and the provinces have to look at, I think would probably go a long way to address everybody's concerns here.

Doug Horswill: OK. Thank you.

Rod Northey: OK. I want to come back. I think you made some very important points on the methylmercury. I understand what you've said, and the

comparison. Again, I'm always interested in the range of things that we're supposed to recommend, and one of the things that I wanted to ask you about is the alternatives to the project point that you made.

Shelley Ouellette: Mm-hmm.

Rod Northey: It goes in multiple ways, and it goes this way: if you put a science panel in play, they're not really going to deal with the alternatives to a project. That's not really a science question, it's kind of a public policy question, and a lot of other things. I just want to ask you in terms of how this goes. One way of looking at EA is that it has multiple components, with multiple kinds of expertise, and no one single kind of expertise that covers it if it's done rigorously. I just wanted to ask you, when you put something in play and you're balancing — alternatives to a project is often called by many a no-go discussion, should this even happen at all? — what weight do you want to give us between that kind of role of a panel, which is a kind of planning question and a policy question, versus a science question, the methylmercury? It seems to me it's both, but it's different kinds of expertise, I think, isn't it?

Shelley Ouellette: Well, I think that the alternatives should be assessed prior to even a project being environmentally assessed, because we have to look at the lowest impact that you're going to have on the environment, right? That's the whole point of environmental preservation. If alternatives are looked at before a project is even examined, maybe that project wouldn't even be examined at all. Because here for Site C, you know, and in Muskrat Falls, at Keeyask, all of them, after the approvals were given, communities came up with — or just normal people paid to have assessments done of alternatives. And there are viable alternatives to these megaprojects.

Rod Northey: All right. In terms of that point, your thing would be that the panel review is a bit late to be doing that kind of question or getting — is that —

Shelley Ouellette: Yes.

Rod Northey: And do you have a recommendation as to how you could do it earlier than a panel review?

Shelley Ouellette: Well, once the need is assessed that, like — well, this need has never been proven, but if there's a proven need for something, say more power, all of the alternatives that have a lesser footprint on the environment should be looked at immediately, and maybe a huge dam is the last thing that you're going to look at because it has the biggest impact on huge massive tracts of land, and right from the ground to the human aspect. I think that smaller alternatives, with less footprint and less cost and less damage to — and, you know, in the north First Nations is always the ones to get beat up first. They lose everything. And with Site C they're really losing a lot here.

Rod Northey: All right. So a final question is this, and it's not simple. If we take a megaproject, and we say the federal government's got an interest in it because it's of national significance, and the province has an interest in it because of provincial significance, how do we, with those kinds of projects, deal with your point about the local community and the local impacts are what everyone locally lives with? If you've got some thoughts, how do you get the local to assume the kind of importance that you would like it, when we also say in the same breath it has these major economic implications at national and provincial levels?

Shelley Ouellette: Well, to start with, like with Site C, it's never been proven that there's even a need for it. They project that we'll need it in 20 to 40 years, but why build it now and why impact everybody now? I don't think that last century's technology we should be using it in this century. There's innovative ideas coming up all the time. There's all kinds of different lesser impact technologies to use. I read a report about Site C, that Prime Minister Trudeau is having this big thing about he wants the electricity for a hundred years. Well, Site C's not even going to last a hundred years, and there's so many viable options to a dam. There's wind, solar, tidal. There's huge developments in tidal power right now. We don't need Site C for any reason. But the impact to the people, as you hear, people losing their homes, First Nations losing the last 20 per cent of their valley, their burial grounds, their sacred ceremonial sites, the impact to the people, the local people, for this project is astronomical, and this has to be taken into effect before any project should be even approved by a provincial government, let alone a federal government.

Rod Northey: Thank you.

Johanne G  linas: Thank you very much for your presentation, Ms Ouellette.

And our last presenter is Rick Koechl, and I don't know if I pronounced your name —

Rick Koechl: You're close. One of those wonder alphabet soup names, you know German names.

First of all, I want to apologize for not having, I guess, a digital version for you folks. I did bring an extra hardcopy. I guess we can —

Johanne G  linas: We will listen.

Rick Koechl: Yeah. We can download it after the fact, when I get home, because it's on my computer there at home at this point.

RICK KOECHL

Rick Koechl: Before I begin, I don't want to score any brownie points, but I just wanted to say thank you for the kinds of questions you've been asking this afternoon. I've been able to at least kind of think about some of the interesting topics that I think are on your mind as well as ours. Hopefully, together, some solutions can come about. So thank you for that.

Let me throw on my glasses. There you go.

First of all, I wanted to say to you all, honoured members, thanks again for the opportunity to make this presentation to you.

A little bit of background. I just am a recently retired teacher, 38 years, but I'm a long-time resident of this area, 36 years now in the north Peace, but I do feel a thing that I think many of the other speakers have said. I feel like we're sitting at Ground Zero when it comes to resource development. It doesn't matter if it's in British Columbia or in Canada, there's no doubt that we are sort of in the centre of everything.

In my own tenure here in the northeast, my family, friends and acquaintances have dealt with the drilling — get ready for this — over 15,000 natural gas wells, plants, facilities, dehydrators, and now, of course, Site C, the fallout coming soon enough. Now when you think about that, that's just in the last 30 to 35 years, but there's something like 25,000 natural gas wells that have been drilled. All of these, or most of them, tend to fall under the radar for an EU or an EA assessment, so we don't even get the benefit of finding out whether or not it could be potentially safe.

Let me give you an example. In my neck of the woods where I happen to live, we have been, over the years, the last 30, 35 years, we've been inundated with fugitive emissions. That's what we call gas emissions that are released accidentally. It could be H₂S, it could be methane, all kinds of other nasty materials that come out of those wells, breached casings, which I want to tell you about in a minute, leaky dehydrators, massive flaring, and, finally, the increased intrusion into our lives by roads and just so many other industrial kinds of intrusions, you know, affecting our health.

Strangely enough, almost to the day, two years ago my family and I, and several of our neighbours, were almost gassed by H₂S. It was a breached casing, it was a casing that was cracked, and it was starting — it was significant, it was big. I guess by the grace of someone, I sit here in front of you today, because it could have been the last breath that I took. As many of you might know, H₂S is not something very pleasant to deal with. But we can also now add the intrusion of Site C, as, obviously, this whole thing has been developing is afternoon. Put that into

the algorithm of this activity that we're now facing. And, again, specifically to where I live, on the old Hope Road, it's now being requisitioned for hauling purposes related to the reservoir. So, again, there will be more traffic, further intrusions and safety issues. Who knows how long that's going to last, but it'll be years?

Now why do I point this out to you? Well, it's because I've already been involved over the years with a variety of gas companies. Call it collaboration, call it compromises, I don't know which word to use myself, because, again, we fall under the radar of the EA process. I can tell you one thing that I have learned, and that is regardless of who you deal with, be it a private company or a corporation, a Crown corp like BC Hydro, they will have far more authority, more leeway, and more legal advantage with respect to their project, whatever it is, whether it's the gas well that's 100 metres from your house or whether it is Site C, you know the massive reservoir as well, in comparison to any landowner or resident of the area. And I guess that's always been called "for the greater good," but I disagree with that.

Now why, again, do I mention it? Well, it's clear that the EA process should not, repeat not be another avenue for the private sector or the Crown to simply step on the rights and the jurisdictions of private citizens who happen to get in the way of these projects, and that's been happening with regularity up here. Remember, we're Ground Zero, and I think Shelley pointed that out very, very nicely, by the way.

About two years ago myself and a cohort gave a presentation to the joint panel review regarding Site C. Harry Swain was at the helm of that. I have nothing but admiration for the team. I felt that they did a really good job listening to so many of the different issues that surrounded the project, but I got to tell you their hands were tied before they left Victoria. And what do I mean by that? Well, here it is. And we were told this by Harry Swain when we were sitting there giving — and I'll tell you what the presentation was about in moment here. He was allowed to hear our presentations, but he could not really make recommendations about those particular topics. And I'll give you an example here, the involvement of the BC Utilities Commission. Because that was brought up not just us, but by many other groups with the EA process. And the big one that we brought up was the use of alternative portfolios in lieu of what Shelley was talking about, a megadam. We talked about the use of natural gas, combined-cycle gas turbines, cogen, which is a very, very effective way of going. Ninety-two per cent efficient for cogen. And the reason why — oh, and one more to go, the overall financials of the Site C project.

Herein lies the problem. The joint panel had made a number of key recommendations, you know, at the end of the cycle. In fact, they did criticize the B.C. Liberals at the time about the lack of their transparency regarding the financial cost of Site C compared to other portfolios, such as the use of natural gas to produce electricity, and it made it clear to us that it wasn't part of their terms of reference. OK?

So BC Hydro, at one point during the meeting where we were giving our information, Harry Swain turned to somebody in the Hydro box and said, "We want some information, something suitable about natural gas. We want you to come up with his and, you know, give us sort of a financial comparison of the two." Well, guess what, they never got it. Hydro never provided it for the joint panel.

Well, again, they weren't chided. They weren't punished. They weren't fined for doing it. Why not? They didn't have to worry about it. It wasn't even part of the reference. And they knew that. They knew that. Because under the *Clean Energy Act* in British Columbia right now, I guess it was 2010 — somebody else can correct me on that — a natural gas portfolio of using it for the purposes of electricity is a very, very small, small amount, maybe about 5 per cent, maybe 2 per cent today, because it has been sort of used up somewhat. Technically speaking, back in 2014 the same problem, the portfolio was basically extinguished for the use of natural gas. Talk about cheap. Oh, my God, it's about one-eighth the price of the dam. Again, more to come on the finances here.

Again, the Government of B.C. deemed what the terms of reference would be, because it was a joint panel, and they immediately were able to narrow down what the likely outcome would be. And it would be in their favour, clearly, because, ultimately, what they were trying to make the point of is that Site C would be the most logical, price-efficient choice under their terms of reference. They basically knew they would win. The government had achieved their victory. They set the rules up or they take their ball and go home.

The second part of this algorithm is self-fulfilling or prophetic. When the final recommendations were made by the JPR, on page 325 of their recommendations I happen to read — they were really, really outstandingly positive about our recommendation about using natural gas, but they understood that it was outside of their terms of reference, and again they stated that fact. But here's the problem. Regardless of what the panel of folks were concerned about, or whether they had even had the right to make a decision on this, here's the problem. We call it the black box or the black hole. Simply put, the final decision of whatever ensues is going to be done by a group of politicians, and they're not going to be swayed by you folks, who are non-elected, right?

And I can say this with certainty, because I've heard a politician make this comment, or by the BCUC, the Utilities Commission, or anyone else interfering with their political will, OK, because here's what that politician actually said. He only has to answer to his constituents, not to somebody who's unelected, like you folks. Now if you can believe this — I had trouble believing it myself — this was stated by a number of key Liberal politicians. There you have it, OK? It's an excuse. It's shameful.

You folks, I guess, have pillars, which I think is really kind of neat. I guess there are 12 of them, and one of them, I think, is the sustainability pillar, which I think is really a core objective as well. And I'd like to tell you that I agree with you. It's biological. It's under, I guess, the term of "ecological." They used the sustainability objectives. Social was brought up, I guess, here as well this afternoon. And I'd like to highlight the one that I'm — certainly one of the more interested points here is the economical, or the financial, the long-term financial implications to us, the ratepayers, the taxpayers of this province.

Now a couple of — not even. What was it, a week ago, if I'm not mistaken, Prime Minister Trudeau went ahead with the Trans Mountain Pipeline Project. And one thing that I thought I should bring up from that particular decision, because I heard him say it, on TV of course, he said that sustainability is a double-edged sword. He said the environment and the economy. So I guess he's talking about finances. Correct? Now why do I bring up this point right now? Well, because I do agree with him. I don't think you can have environmental health without economic health, or vice versa. Shelley pointed out a few moments ago, when she was talking about the Muskrat Falls, that one has doubled in price, OK, and the ratepayers of the province will be basically backing the difference in rate increases in the next two to three years. Massive. It's going to go up to 22 cents per kilowatt hour. Keeyask, in Manitoba, same thing. Manitoba Hydro's overall debt is going from, I think, around \$4 billion, at this point up, to \$25 billion.

We have a problem. We have a problem because the finances have to be sustainable or you don't have a project to start with. You don't have a leg to stand on. And I think that's the problem here. Their decision. The decision, because the terms of reference were void of the economics and the finances of the project. That was a choice that was made before, as I say, Harry Swain and company even arrived on site.

Basically, I'll just reiterate what happened there. There's no B.C. utility oversight because of the fact of the terms of reference. There was no allowable debate on the use of natural gas for the production of electricity, again, because it wasn't part of the terms of reference. And, finally, we got absolutely nothing about, I guess, the long-term viability or sustainability of the Site C project, or the costs that will be incurred by us over the next 70 years, our kids, our grandkids, if you will. And that's the problem, that one of the pillars that you're talking about, sustainability, I think has to include economics or we're in serious doubt. Problems like Muskrat, I think, are just beginning to show their true colours right now because of this.

OK, so what's a better approach? OK, I kind of like to call this the "cumulative terms of reference." And the reason why I like to call it that is because I think there's certain things that we need for sustainability. And, of course, we've heard a lot about cumulative impacts this afternoon. Well, I think one of them

again is cumulative economics, and we need to make sure that we don't omit financials from an EA. Gwen, I think, pointed that out, from Hudson's Hope, how important that is as well, right? That we were not allowed to speak about the issue of the BC Utilities Commission, and then it was even ruled out of order when it came to the EA. So we got double whammied, and to this day we still don't know what the true cost is. In fact, I can tell you that the price of Site C went from \$6.6 billion, up to, effectively, \$9.6 today, in a matter of four years. We don't know how that extra three-and-a-half billion came about. We have no idea. But that took less than four years.

I do think that leaving this out of the terms of reference, OK, that is the finances, it's not just unethical, I think it's criminal. And I'll use Harry Swain's terms. He calls it dereliction of duty, and he used that several months after the fact that the committee had disbanded. I'll just throw that out again, dereliction of duty. Not on the part of your guys. I mean you obviously have your terms of reference, but this is government he's talking about.

So what do I think needs to be done? I've got a couple of quick points here, and then I'm done. I think the regulatory agency, something like the BC Utilities Commission, has to be a part of the terms of reference regardless. You have to have a utilities commission present in order to ask the questions and to raise the ire of the people who are going to be paying for it. Projects have to be clear and transparent. It has to be done through an independent auditing firm, not through, as we've learned today, BC Hydro or some interested party, be it the Government of B.C. —the Government of B.C. claims it was independent. It went through KPMG. It's a brokerage, and accounting brokerage. Let me put it this way, they didn't give very many specifics of the project, and they gave it sort of a glad-handed approval, but we didn't get any of the real numbers from them either.

There should be no generalizations about the finances of the project. To the best of the ability of all concerned, it should be clear about things like capital costs, you might say — yeah, capital costs, accrued interest over the period of time — in the case of something like Site C, it's going to be 70 years. In the case of individual wells, just going back to the topic about oil and gas, there should also be some other costs that we should be looking at. For example, something that came up with one of our discussion was performance bonds. That is you put the money up front before your project starts so that you've got enough around to actually finish the job, like reclamation of the soil or decommissioning something like Site C. You need the money up front in order to make your point. I think the money has to be up front for Trans Mountain. I'm thinking it does, but I'm not 100 per cent sure about that. You have to look at the inflationary value of a project over the life. If we start paying just the interest on Site C, we're hooped. We already know from BC Hydro they're going to lose \$800 million in the first four years — that's Hydro's numbers, not mine — \$200 million a year, but they didn't tell us about year five, six, seven, eight, nine, ten, and it's supposed to go around for another 70 years.

And, finally, we should find out how are they going to pay for this thing? In the private, you know, sector, they raise money or they have capital assets. In the Crown application what's it going to be? Are they going to sell government bonds? Are they going to give us tax increases? Are they going to give us rate increases? And if you live in B.C., we're like Ontario. We live in parallel universes right now, Ontario, us and Germany, but that's another story.

I think at the end of it we have a couple of things that we can do, but I think finances — the economics have to be — part of that pillar of sustainability has to be built into the terms, and it can't be left out.

Thank you.

Johanne G elinas: Thank you very much.

Doug?

Doug Horswill: It's an interesting perspective that you've brought to us. The BCUC, you said, have to be involved, the BC Utilities Commission. Historically, the BC Utilities Commission would probably get involved in broad energy planning — how much power do we need in the next 50 years in this province? — and then might be into assessment of alternatives. How do you see that process meshing with the impact assessment process itself? Or do you see the impact assessment process absorbing both, and doing it all?

Rick Koechl: The impact assessment. So are we talking about the environmental assessment or impact —

Doug Horswill: Probably.

Rick Koechl: — assessment or —

Doug Horswill: Well, we've —

Rick Koechl: Yeah.

Doug Horswill: — talked here today about environment, but there's —

Rick Koechl: Yeah.

Doug Horswill: — also been discussion about social issues and —

Rick Koechl: Right.

Doug Horswill: — other issues. So when I say "impact," I'm being holistic.

Rick Koechl: Right. Right.

Doug Horswill: Environmental assessment would be fine. You can use that as a synonym.

Rick Koechl: Yeah, I think we're going to need to incorporate them in some capacity, because, really, as I pointed out, in my own mind anyway, I see that environmental issues are financial issues. If you can't pay for something, like dealing with, say, methylmercury in a reservoir, you shouldn't be dealing with this project in the first place. And that's where the Utilities Commission, I think, can make a justified stance on whether or not this project should be deemed worthy of the green light.

Doug Horswill: Right.

Rick Koechl: Yeah.

Doug Horswill: What we're trying to do as a panel, of course, is we're not looking at a specific project —

Rick Koechl: Yeah. Understood.

Doug Horswill: — and the pros and cons about it, and so on and so forth. We have no role or mandate or anything in that. We're trying to take the experience from projects and generalize it into how EA, environment assessment, impact assessment, should look into the future, right?

Rick Koechl: Right. Right.

Doug Horswill: If you took the assessment process, you could divide it into three sort of steps: a planning step, an assessment step and a decision step.

Rick Koechl: Mm-hmm.

Doug Horswill: If you looked at it that way, how would you see the various bits linking together? Do you have any comment on that —

Rick Koechl: I think the Utilities Commission, or some facsimile thereof, needs to be involved right from day one with planning. I can see that you have to start with planning. The assessment, of course, is going to come out after they have their project outline, and say, "This is how big it's going to be." But I think the UC — the Utilities Commission, should lock-step the entire project width, if you will, because right now BC Hydro would like nothing better than to keep their distance from the Utilities Commission.

Doug Horswill: Mm-hmm.

Rick Koechl: They don't want them anywhere at arm's length.

Doug Horswill: My last question concerns the third element of that troika I just put up there, the —

Rick Koechl: Yeah.

Doug Horswill: — decision. Have you any thoughts about that? Who? How?

Rick Koechl: I think the decision should be rendered in large part not by the government, but I think your — as far as an EA panel, a joint panel be it or whatever, I think they should hold — assuming that they are chosen are arm's length, are not, again, you know, the buddies of the premier or whoever, but as long as they're chosen wisely, I think their recommendations need to hold weight, and they should be — that should be a carryover. They should not be ignored. As I say, they fall into the black hole or the black box. I think the decision has to be rendered by you folks at the top here, in terms of a decision that is respected and is followed or it becomes a criminal offence. I think it's that significant to me that you guys do hold it. Now whether there's an appeal process if you're not happy with it, maybe that's something the government might end up doing, but at the initial stage I think it's written in stone.

Doug Horswill: Great, thank you.

Rick Koechl: Yeah.

Rod Northey: Yes — sorry — I don't want to go any further with that part, which I think was important, I want to come back to the Ground Zero idea that you started with —

Rick Koechl: Yeah.

Rod Northey: — and the number of wells and the like. We're a federal panel, and you're talking about 25,000 wells, and 15,000, so —

Rick Koechl: Yeah. Yeah.

Rod Northey: — can you explain to us that are not from the province — we have one panellist who is —

Rick Koechl: Yeah.

Rod Northey: — what exactly happens to take an area and put a well in? Is there any plan at all, or is it simply —

Rick Koechl: Oh.

Rod Northey: — by right of an applicant you can put a well in anywhere and a pipeline anywhere?

Rick Koechl: You're asking the \$64,000 question. Thanks for asking it, because I think that is one of the biggest problems we have. Again, we fall under the radar here for some kind of an assessment. But what happens is under the regulations, which fall under the Oil and Gas Commission right now, so they're the ones who really are the ultimate regulatory body for this, you could put a natural gas well as close as 100 metres from your home. That's not very far, trust me. The well that had the breached casing was only a couple of hundred metres away from our place and it just about did us in. But, again, it's one of those things where the regulatory body is provincial, it's not federal, and those guidelines have been established probably since about the late 1970s, I would say, where a lot of the present-day, you know, options come to bear.

Yeah, building pads, for example, today, has changed as well, the pad being the place where the wells are drilled. Years ago, when there was conventional drilling, generally, you'd have one gas well per pad. But today, with something called fracking, which I'm sure you've all heard of, you know — well, fracturing, it can be up to 20, 25, 30 wells per pad, and the pad is only, I think, about maybe, hmm, five acres. It doesn't have to be that large to hold a lot of wells — many, many wells, actually.

Rod Northey: All right. And —

Rick Koechl: Yeah.

Rod Northey: — are those outside — I'm just trying to relate this to the previous comment. Are those inside municipal boundaries? Outside municipal boundaries? Where are they?

Rick Koechl: Good question. Yeah, I think —

Rod Northey: Are they all Crown land? Or how much is private land of that 25,000?

Rick Koechl: It can be on private. Again, it's one of those things where the company, as I mentioned at the beginning of this presentation, holds the legal key, which we don't. Typically, we're the ones who have to take it to — I'm just trying to remember what the term is here, it's not a court, but —

Gwen Johansson: Service Rights Board.

Rick Koechl: Oh, thank you, the Service Rights Board, exactly. Thanks, Gwen. And then you can debate your argument about whether it's a problem for you because of proximity. But, yeah, wells can be put onto private land, they can be put onto Crown land. Some municipalities — Lori, maybe you can clarify this — I don't think there's any — I don't believe there's any wells within the Municipality of Fort St. John, but I may be wrong. They also have deferred tenure sites, but you have to fight for those.

Rod Northey: All right.

Rick Koechl: Yeah. Yeah.

Rod Northey: And in terms of making up a project that's now making its way down to the coast, so to speak —

Rick Koechl: Right.

Rod Northey: — what is the facility, and what's the scale of it, where the wells and pipelines all accumulate to produce something that's large enough, that then goes into a pipeline across the province? What's the process there?

Rick Koechl: Oh, you mean like for LNG or for —

Rod Northey: Something like that, yeah.

Rick Koechl: Oh, boy. Well, I would say right now a company — you could probably google the company Petronas, which is one of the largest right now in the northeast, and they've got a lot of wells that have been drilled, a lot of wells that have been capped. They centralized that to a funnelling place, where it then is put into a larger pipeline, and eventually ends up in Spectra's pipeline, or one of the other ones that's going to be built, assuming the LNG goes through, and then it would be shipped forward from there.

I think once you've got trans-provincial, you've got the National Energy Board stepping in. Some of these might include NEB as well as —

Rod Northey: Yeah, eventually, if it goes across a boundary. If it starts here and goes out to the coast, it doesn't get there, so —

Rick Koechl: Exactly, yeah. Yeah.

Rod Northey: All right, so it's the scale of the collector facility that triggers (inaudible)?

Rick Koechl: Right. And there are many in this — well, there are several that have been built in the last couple of years as well to facilitate that movement.

Rod Northey: OK. All right, thank you.

Rick Koechl: Yeah. You bet.

Johanne Gélinas: Thank you very much, and that will conclude our afternoon session.

You're invited to join us. I understand that we will start at 7. It will be in this room, our workshop, and usually we finish around 9:30. We will join you, the Panel, for the plenary session, so see you later.

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