IN THE MATTER OF THE JOINT REVIEW PANEL ("JOINT PANEL")
ESTABLISHED TO REVIEW THE SITE C CLEAN ENERGY PROJECT
("PROJECT") PROPOSED BY BRITISH COLUMBIA HYDRO
AND POWER AUTHORITY ("BC HYDRO")

CANADA ENVIRONMENTAL ASSESSMENT AGENCY

AND

BRITISH COLUMBIA ENVIRONMENTAL ASSESSMENT OFFICE

PROCEEDINGS AT HEARING

December 11, 2013

Volume 3

Pages 1 to 257

Сору

Held at:

Pomeroy Hotel 11308 Alaska Road Fort St. John, British Columbia V1J 5T5

APPEARANCES

JOINT REVIEW PANEL:

Dr. Harry Swain - Chairman

Ms. Jocelyne Beaudet

Mr. Jim Mattison

Brian Wallace, Esq. (Legal Counsel)

THE SECRETARIAT:

Courtney Trevis (Panel Co-Manager) Brian Murphy (Panel Co-Manager)

APPLICANT

Craig Godsoe, Esq.) For BC Hydro

INTERESTED PARTIES:

Arlene and Ken Boon

Jim Little

Treaty 8 First Nations, Tribal Chief Liz Logan, Chief Norman Davis, Chief Russell Lilly, Chief Lynette Tsakoza, Chief Roland Willson

Kenneth Forest

Dr. Faisal Moola, David Suzuki Foundation.

Clara London

Philip Hochstein, Independent Contractors and Business Association

Karen Goodings, Peace River Regional District Electoral Area B

John Locher, Ethix Consulting Inc.

INTERESTED PARTIES (continuing):

Arthur Hadland and Laurel-Anne Hadland

Guy Lahaye, North Peace Road and Gun Club

Renata King, Northern Development Initiative Trust

REALTIME COURT REPORTING:

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AUDIO/SOUND SYSTEM:

AVW-TELAV Audio Visual Solutions

Alex Barbour Matthew Bitze Technical Services Representatives

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1	December 11, 2013
2	Fort St. John, British Columbia
3	(Proceedings commenced at 1:00 p.m.)
4	
5	MR. CHAIRMAN: Good afternoon. Can I call
6	us to order, please.
7	
8	Opening Remarks by the Chairman:
9	MR. CHAIRMAN: I'd like to welcome everybody
10	to the first general session of the public hearing
11	regarding the environmental assessment of
12	BC Hydro's proposal to build the Site C dam.
13	As before, I would like to thank the Town
14	the City of Fort St. John and Treaty 8 Tribal
15	Association, Treaty 8 First Nations within whose
16	traditional territory we are holding this hearing
17	today. My name is Harry Swain, and my colleagues
18	on the Panel are Madam Jocelyne Beaudet and James
19	Mattison. Our legal counsel is Brian Wallace, but
20	I think he's taken the afternoon plane home on the
21	grounds that everybody here is honest.
22	The Secretariat, who are mostly over here,
23	include Courtenay Trevis. Would you wave? And
24	Brian Murphy. The Secretariat members all have
25	little tags on, so if there's any help you need

1 with anything, just ask.

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In addition, we have a Court Reporter, Nancy Nielsen, and her team, and an audio visual system run but Alex Barbour.

The purpose of the hearing is to allow the Panel to hear information from interested parties and the general public on the potential BC's five pillars, environmental, economic, health, social and heritage effects of the proposal by BC Hydro to construct and operate a large earth filled dam, power house, transmission line and ancillary works.

The hearing is also designed to provide opportunities for Hydro to explain the project and to respond to concerns and questions raised by the participants including federal and provincial governments, the government departments, local and regional and First Nations governments, Metis associations, non-governmental and civic organizations and the general public.

We are an independent panel. We are not a part of the government of Canada or the government of BC. We are appointed by the two governments to conduct an assessment of the effects of the proposed project under the two acts: the Canadian Environmental Assessment Act of 2012 and the BC

Environmental Assessment Act.

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As these Acts and their related procedures differ somewhat, the two governments entered into a formal agreement which incorporates specific terms of reference for this joint review panel.

We will doubtless have occasion to refer to these to keep our discussions on course. I encourage any of you who have not read this document to do so. It's available from the Secretariat if you haven't seen it. I may from time to time admonish participants to make sure that what they have to say relates to these terms of reference.

Let me highlight a couple of the key features of our instructions. Our first task was to review 20,500 pages of environmental impact statement and its supplements together with a written record of all the pre-panel stages of this procedure and decide whether the record was sufficient for the purpose of holding public hearings. After three rounds of information requests and responses by Hydro, we found the information now some 27,000 pages; not perfect, but sufficient for the purpose of holding these hearings.

We are required to provide conclusions on a

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significance of any adverse environmental effects.

We're also required to recommend mitigation

measures and follow-up programs for the management

of the effects associated with the project should

it proceed.

We are to include in our report a summary of information received at this hearing and in the record that may bear on a determination by the two governments with respect to the justification for the project.

With respect to First Nations, the Panel will receive information related to the nature and scope of the asserted and/or established Aboriginal rights or treaty rights within the project area and assess the potential adverse effects or potential infringements of those rights. We may recommend measures to mitigate any real or potential adverse effects of the project on those rights.

However, the Panel does not have a mandate to make any determination on the validity of rights or title claims asserted or on the strength of those claims. We may not determine the scope of the Crown's duty to consult First Nations, nor may we determine whether governments have met their duty to consult and accommodate.

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Following the completion of our assessment, we will prepare our report for the two governments. This report will be submitted within 90 days of the close of the hearing and will be made available to the public by the governments, not by us.

I would like to thank you for taking part in these proceedings. Your participation and your involvement is very important to us.

We will rely in part on information received through the hearing, and we also believe it will be helpful to Hydro and to other participants in the hearing.

We recognize that the conclusions and recommendations that we will provide to the two governments on this matter will have an effect on participants here today and of those who live in Fort St. John and the surrounding communities. We want to assure you that we take this responsibility very seriously, and we ask everyone here to do the same.

We ask in particular that you conduct yourselves in a manner that is respectful of the important responsibility we jointly have. People in the hearing should be courteous and respectful when asking questions or making comments.

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Any participants who are not respectful will not be allowed to ask further questions or make further comments.

You have all seen the schedule for the next two weeks and for the three weeks in January. We have a lot of territory to cover and, courtesy of our governments, not much time and that's without taking into account the winter weather in the Peace. Changes to the schedule may have to be made, indeed may be forced upon us. We'll do our best to communicate any last-minute changes to the hearing schedule. All changes will be immediately posted on the website that I think everybody must be familiar with at this point.

We have a great deal to cover today and tomorrow, and we are going to extend this hearing into the evening. We will break from 5:00 until 7:00 for dinner and reconvene at 7:00 with the idea of finishing at 9:00.

Your role requires us to remain independent and objective, including with respect to all participants who are before us, and as a result, we will not engage in private discussion on these matters with anyone involved in these proceedings, outside of ourselves and the Secretariat.

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We ask that you not attempt to discuss the project or any of the hearing matters with us outside the hearing. So I apologize if we appear detached or unapproachable. This is a wonderful part of the country, and there are many wonderful people here, and we would like to chat, but we really must not. We need to assure that our behaviour does not give anyone any reason to be concerned regarding our impartiality.

I'd like to draw your attention to some of the procedures that we follow during these hearings. Copies of the public hearing procedures are available at the door or from the Secretariat. Participants presenting themselves before the Panel are not required to give evidence under oath or affirmation and certainly don't have to have a lawyer. But everyone is expected to speak honestly and provide the best information available.

People who are presenting information and wish to use a handout or something on the screen have been asked to bring four copies in: four hard copies for the use of Panel and Hydro, and to give the Secretariat an electronic copy as they come in the room. That will be immediately on the website for everybody else.

If presenters are showing slides or figures,

of course they will be on the screens.

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Our terms of reference dictate that time is of the essence. We will try to strike a balance between formality and expediency while still being fair to all parties. All the documents filed in this proceeding must be placed on the public record unless it is ordered otherwise by the Panel as a result of a formal request for confidentiality. Our strong preference is to avoid accepting information that can't be shared, and the legal threshold for doing so is very high.

You should also note that transcripts are being produced by our court reporter as we go, and for that reason it is essential that all participants use the microphones when speaking.

Transcripts of testimony will generally be available on the website the next day.

When you do come forward to speak, we ask that you identify yourselves so that your name is on the record and spell your last name for the court reporter. We would also ask that you speak relatively slowly and distinctly, because otherwise their fingers fall off. I would remind you to direct questions or comment to me as the Panel

1 Chair. I will then direct them to the appropriate 2 person or group for a response. 3 And please remember that you're presenting your material to us, to the Panel. 4 In some sense 5 this whole exercise is to inform the Panel so that 6 we may consider and condense information in a form 7 of advice to ministers. 8 Finally, you are also reminded as you have 9 been for the last several decades to turn off the ringer on your Blackberry or cell phone. 10 11 Please note that filming or photography is allowed with prior approval, but please not the use 12 13 of flashes or flood light. Anyone with questions about photography 14 15 should see Lucille Jamault who is our media relations officer. 16 17 Where is Lucille? There she is. 18 Wave. Thank you. 19 With respect to the presentations, a daily 20 agenda will be made available each morning 21 outlining the order in which speakers will appear 22 The agenda can be picked up at before the Panel. 23 the entrance or at the Secretariat table. 24 The length of presentations and the time 2.5 available for questioning has been estimated by the

1	Secretariat, and the Chair will do his best to keep
2	the schedule and will not allow repetitious or
3	overly leisurely presentations or questions or
4	answers.
5	Anyone who would like to make a presentation
6	to the Panel and who has not yet registered should
7	see a Secretariat member at the registration desk,
8	and she I think it's Catherine Bailey-Jourdain
9	will register you and let you know when and if you
10	can be able to address the Panel.
11	If your information is similar to that of
12	another witness we may ask that you collaborate in
13	a single presentation in the interest of time. And
14	remember that if time does run out on us, you can
15	always submit written material any time until the
16	close of the public record, and it will be read and
17	considered by the Panel and posted on the registry.
18	I thank you for your attention.
19	I would now like to call on BC Hydro to
20	introduce the project.
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22	Introduction of the Project by BC Hydro:
23	
24	Bridget Gilbride
25	Michael Savidant

1	John Nunn
2	Trevor Proverbs
3	Susan Yurkovich
4	Siobhan Jackson
5	Judith Reynier
6	
7	MS. YURKOVICH: Thank you, Mr. Chair, Panel
8	members and participants.
9	Good afternoon. My name is Susan Yurkovich,
10	and I'm the executive vice-president at BC Hydro
11	responsible for the clean energy project, Site C
12	clean energy project.
13	I'm joined today on my right by Al Strang,
14	our environment manager; John Nunn, our chief
15	project engineer; Mike Savidant, our commercial
16	manager; Siobhan Jackson, our socioeconomic
17	manager; Judith Reynier, who manages our
18	properties; and Trevor Proverbs, our director of
19	First Nations.
20	On Monday at the opening of the hearings, I
21	spoke about why BC Hydro is proposing the Site C
22	project to meet the province's future electricity
23	need. And I also summarized the assessment process
24	that we have followed. This afternoon I'd like to
25	provide a brief overview of our consultation to

1 date.

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Our consultation for the Site C project has included four distinct approaches for public property owners, local governments and Aboriginal groups. Our Aboriginal engagement has been undertaken in a separate but parallel process, and we look forward to the discussions at the upcoming meetings in First Nations' communities and at the topic-specific session on asserted or established Aboriginal or Treaty -- and Treaty rights on January 17th.

For today, I'd like to focus my remarks on our public consultation and local government engagement and then spend a few minutes summarizing some of the proposed mitigation measures that speak to the interests of residents in the District of Taylor, the City of Fort St. John, and surrounding areas.

On Friday in Hudson's Hope, we will provide more information about our property owner consultation and summarize some of the proposed mitigations for the district of Hudson's Hope and Chetwynd.

Section 1.1 of the EIS guideline states that the overall objective of public participation is

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best achieved when all parties have a clear understanding of the proposed project as early as possible in the review process. It also states that the public will be provided with opportunities to participate in the environmental assessment process.

We believe our consultation has been consistent with this guiding principle. Our consultation started early in 2007, approximately three and a half years before the start of the formal environmental assessment process. We've provided extensive notification in advance of consultation opportunities. We've held seven rounds of consultation over six years, providing current project information and offering several ways to participate, and we've documented how input has been considered, and this is summarized in section 9 of the EIS.

BC Hydro began its project consultation in December of 2007 with a pre-consultation process where we asked people how they would like to be consulted and on what topics.

People told us they preferred open houses and face-to-face meetings over online methods of consultation, and they wanted mail notification to

1 households in the region in addition to 2 notification by other means. They also told us they wanted to have access 3 to information about the project. In response in 4 5 2008, we opened a community consultation office in 6 Fort St. John and later in the year expanded that 7 to include a part-time office in Hudson's Hope. At the consultation office, we provide 8 9 current information about field programs, 10 engineering studies, environmental reports, maps 11 and models of -- and maps and models of the 12 proposed reservoir and dam site. 13 In addition, we provide a library including the full EIS and a high-speed computer terminal to 14 15 facilitate public access to the extensive body of 16 information that is available on our project 17 website. 18 BC Hydro has held or participated in more 19 than 500 meetings, open houses, presentations and 20 trade fairs since 2007. We've met local 21 governments, provincial agencies with 22 responsibilities for health, ambulance, the school 23 districts, RCMP, BC Housing and the North Peace

Regional Airport along with various community

organizations.

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1 We've responded to approximately 3,200 public inquiries in addition to the 4200 information 2 3 requests as part of the formal environmental 4 assessment process. 5 The City of Fort St. John has also conducted 6 community consultation, and they shared their 7 results of their discussion with us in 2012. 8 input has been important in quiding our mitigation 9 measures in the region. 10 We know that as important as listening and 11 consulting is, it's also important to communicate 12 how the consultation has been considered. 13 Consideration memos were prepared that reflect how we considered public input to refine the project 14 15 design and to develop mitigation and compensation 16 measures. 17 More details about our consultation and 18 considerations can be found in volume 1, 19 appendix G, but I'd like to share a few examples 20 with you today. 21 For the Highway 29 realignment at Lynx Creek, 22 the alignment option we have chosen now follows 23 Miller Road. This suggestion came to us from a 24 property owner during consultation in 2008 and has

been adopted into the design of the project.

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1 For the 85th Avenue industrial lands, 2 following consultation with the City of Fort 3 St. John, the Peace River Regional District and local residents, BC Hydro changed its initial plan 4 5 to truck materials from 85th Avenue to the dam 6 site. Instead, we plan to use the conveyer belt 7 system which will significantly reduce local truck traffic, noise and dust. 8 9 We also heard a lot from people and 10 organizations in the region about the tight labour 11 market and the need to expand the local labour pool 12 by providing training opportunities. 13 So in discussion with local education providers, BC Hydro established a 1 million dollar 14 15 bursary program with the Northern Lights College 16 Foundation to support access to skills and trades 17 training for Aboriginal and non-Aboriginal 18 students. We've also provided funding to the North

support regional trades training and apprentice programs.

Recognizing the unique role of local governments in representing communities, we

East Native Advancing Society, Northern

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Opportunities, and the regional school districts to

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2010, expanding upon their participation in the 2008/2009 technical advisory committee process that I referenced in my opening remarks on Monday.

The committee includes mayors, regional directors and chief administrative officers from the local and regional governments. I am pleased to be able to chair this committee as it provides our team with the opportunity to hear collectively from regional leaders about their interests and concerns.

But because each community also has specific areas of interest and concern, we meet directly with community officials and staff to share information and discuss options to address issues of importance to them.

BC Hydro recognizes the important role of the Peace region and providing electricity to the province, and we want to provide lasting, economic and social benefits to the region. To that end, we sought to negotiate a regional legacy benefits agreement with the Peace River Regional District and its member municipalities.

Agreement was reached and announced in June of this year in which BC Hydro will provide an annual payment of \$2.4 million, indexed to

inflation, for a period of 70 years once the Site C project becomes operational.

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In addition to the legacy benefit agreements, we have been working closely with communities to discuss potential direct effects of the project and proposed mitigation and monitoring measures. While not a requirement of the environmental assessment process, we believe that reaching community specific agreements will provide greater clarity to communities about the implementation of proposed mitigation and monitoring measures. I'm pleased that we have a financial agreement with the District of Chetwynd. We've also had constructive discussions and anticipate an agreement shortly with the District of Taylor.

Our discussions with the City of Fort St.

John are continuing, and we look forward to

resuming discussions with the District of Hudson's

Hope and Peace River Regional District in the near

future.

Before closing I'd like to share a few examples of some of the proposed mitigation measures that might be of interest to area residents. We have committed to build 40 new housing units in Fort St. John. These units will

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be used temporarily by the project workforce during construction. And then provided to the community for long-term affordable housing following construction.

Our camp will be fully serviced and not reliant on municipal services. It will include on-site recreation and emergency and medical services, which address many concerns raised by community residents. Further, our site safety and security plans are being informed with input from the RCMP and neighbouring communities, and we have proposed to provide funding to support additional RCMP resources that may be required in the region as a result of the project.

We will support transportation and local road safety improvements in the area. Some of these include additional lighting along Highway 97 through Taylor, new highway message boards on either side of the Taylor Bridge and improvements to local roads.

To ensure maintenance of regional transportation routes used by the project, we will provide funding to the Ministry of Transportation and Infrastructure to increase their pavement condition monitoring and will fund any required

1 improvements.

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To support regional recreation, we have proposed to build three new permanent reservoir boat launches, establish a community recreation fund to support the development of new shoreline wreck sites and to develop at least 20 new long-stay serviced RV sites at Peace Island Park.

Finally, we heard from the not-for-profit sector about the potential pressures on social service providers and have proposed an annual contribution of \$100,000 during construction per year to support North and South Peace non-profit organizations.

In addition, we've proposed direct contributions to the local Salvation Army, North Peace Community Resource Society and Women's Resource Society to support transitional and emergency housing.

These are just a few of the mitigation measures that are proposed in the EIS and are summarized in section 39.

I've shared with you a high-level summary of our consultation with communities over the last six years as well as some of the examples of mitigation measures proposed to address the potential effects

1	of the project.
2	We recognize that our consultation efforts to
3	date have not resolved the concerns of all
4	participants. However, we have worked hard to hear
5	and to understand their concerns and to consider
6	them thoroughly in the work we have undertaken.
7	If we are successful in achieving
8	environmental certification, we will continue to
9	work with communities throughout the construction
10	and operation of this project.
11	Thank you for the opportunity to make opening
12	remarks. We look forward to the discussions this
13	afternoon.
14	MR. CHAIRMAN: Thank you, Ms. Yurkovich.
15	I should have said one other thing and that
16	is that sometimes in this room it's hard to hear.
17	If anybody would like a set of earphones, you can
18	call at the Secretariat and they'll provide you a
19	loaner.
20	Thank you for those opening remarks.
21	I would like now to turn to the first of our
22	presenters this afternoon, Arlene and Ken Boon.
23	Welcome.
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Presentation by Arlene and Ken Boon:

1	MR.	KEN BOON:	Thank you.
2	MS.	ARLENE BOON:	Thank you, Mr. Chair, for the
3		opportunity for Ken ar	nd I to speak today to present
4		to these public hearing	ngs.
5		We were told tha	at man has lived in this
6		valley for about 10,00	00 years and maybe more. In
7		1793 Alexander Mackenz	zie became the first white
8		person through here or	n the historic crossing of the
9		North American contine	ent. He was followed by other
10		explorers, fur traders	s and prospectors. The Rocky
11		Mountain Fort and other	er sites were established and
12		over 100 years of fur	trading activity continued
13		before agricultural-ba	ased homesteading started as
14		well.	
15	MR.	CHAIRMAN:	Could I ask you to bring the
16		microphone a little bi	it closer.
17	MS.	ARLENE BOON:	Certainly.
18	THE	CHAIRMAN:	Thank you.
19	MS.	ARLENE BOON:	I'll just get positioned
20		here.	
21		My grandfather I	Lloyd Bentley Senior first
22		came to the Peace cour	ntry in 1919 and homesteaded
23		near Rala (phonetic).	He farmed and ranched there
24		and later near Dawson	Creek. He started buying
25		land in the Bear Flat	from the original

1 homesteaders in the 1940s and moved to Bear Flat in 2 1950s where he established a farm and ranch 3 operation. My parents followed him from Dawson Creek and 4 5 moved to the adjoining land in 1959 where they 6 started their own ranch and where I was born and 7 raised. In the 1970s, BC Hydro tried to buy my 8 9 grandfather's home and much of his land for Site C. 10 And at this time he did not have power at his 11 house. But he refused to sell, and as a direct 12 result his land stayed in the family after he 13 passed away. 14 Ken and I now own the lower part of my 15 grandfather's place, and we live in the same house that he built in 1959. 16 17 I have lived in this house for 33 years. 18 Here we carry on a farming and mixed grain and hay 19 production. We also run the Bear Flat campground 20 that my parents started, and Ken and his partner --21 and Ken is a partner in the log home construction 22 company and works from home. 23 My mother has lived with us since Dad passed 24 away in 1998. Her home is the original -- is the

restored original Bear Flat one-room log

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schoolhouse built in 1921.

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It is a recognized heritage building, and we have several other historic buildings in our yard as well. Four generations of Bentleys have lived on the flat. My two sons were raised there and now our grandchildren. The fifth generation are often brought out to visit and we hope will live there themselves one day.

In addition to making our living from the home-based activities mentioned above, we also receive many benefits from our home at Bear Flat in the Peace River Valley. We are fortunate to have a large vegetable garden, and there are several other families from town that put in vegetable gardens alongside ours. We also lease out some river bottom land to a local family who operates a successful market garden business.

There are excellent wild berries in the Valley and I can a year's supply of saskatoons and chokecherry fruit every year. Many people come out to the Valley to pick berries as well.

Our home has an excellent domestic water supply from the same spring that has been used by white settlers and no doubt natives before that.

We heat our home with wood, and we have a plentiful

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supply of firewood. In March of 2007, we opened the door to the unofficial Bear Flat Museum in our yard in the restored Jim Watson house, which was originally built at the west end of Bear Flat.

To date, we have over 800 people through our door. We guide school class and other tours through the museum, the property and to highlight the history, the unique agricultural capability, critical wildlife habitat, and unfortunately how Site C could destroy this all.

This Valley is one giant archaeological site. There are many recognized heritage act sites on our property and the adjoining Crown land.

The Dopp family homesteaded in 1917 where we now live. Their daughter, Blanche, has told us how their family found arrowheads by the pailful in this flat. She also related how they picked buffalo skulls along with roots when clearing the land for farming. We continue to find arrowheads and other artifacts in our home flat as well as fossils and other paleontology in the creek beds and washes. My sister found part of a mammoth tusk along Cache Creek.

We enjoy all the wildlife viewing, hiking, photography, boating, fishing and hunting that the

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valley offers. This valley has a wide range of biodiversity, critical winter habitat and critical birthing grounds unique to the north for numerous wildlife species.

South facing Native grass hillsides are critical to winter and early spring survival of wildlife. The Valley is also a critical travel corridor for the important Yellowstone to Yukon concept of connectivity.

The attachments titled "Wildlife Sightings and Valley Activities" is our years' snapshots of just that where we documented wildlife and recreational activities that we witnessed from our home.

We own land on the south facing river bank hillsides that are a host to a grassland ecosystem that offer critical water, wintering habitat.

These slopes are home to the prickly pear cactus, and we endeavour to photograph them every year when they flower, often on Canada Day. The Peace River Valley is the only location in northern BC where they are found.

The campground has a core group of regular campers and groups that appreciate the beauty of the valley and come back yearly. These are people

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who appreciate our ban on ATV use and the quiet nature of the campground. Part of our social fabric is socializing with these people year after year.

Various Native groups such as Treaty 8 and individual communities hold gatherings at our camp ground such as the annual Nenan youth and elders camp. With our permission, an elder has from one of the communities has erected a sweat lodge at the campground, and it has been used every year since.

Paddle For the Peace is an event on the river that draws several hundred people and boats. It is put on by the Peace Valley Environment Association, West Moberly First Nations and Halfway River First Nations and with support from Treaty 8. It usually involves either launching or take out of boats on our river flat field, and Ken and I are on the Paddle for the Peace committee and help out with it every year.

We allow public access for fishing, hunting, canoe launch and take out through our private land, and we enjoy helping others to be able to utilize the Valley that way. We consider people who live 30 miles up the valley as our neighbours, but our nearest neighbours are miles away.

1	The above information is a snapshot of our
2	life in the Valley and touches on some of the
3	unique features. We often have a hard time
4	explaining how connected our life is to the river
5	valley and hope the above list sheds some light on
6	that. Most of our land would either be flooded,
7	impacted by statutory right of way or taken up by
8	the road alignment should this project proceed,
9	that includes our home and my mom's home.
10	It should be fairly obvious that everything
11	mentioned here, our heritage, livelihood, way of
12	life, and connection to this place will basically
13	be wiped out or burnt down as BC Hydro has done in
14	the past.
15	The destruction of our home place will have
16	grave impacts mentally and physically on us, our
17	family and our friends.
18	The valley is a special place in many ways,
19	and as a result families tend to stay here. There
20	are a number of multi general sorry.
21	MR. CHAIRMAN: Would you like to take a
22	short break?
23	Why don't we just break for three minutes
24	right now. Thank you.
25	MS. ARLENE BOON: Thank you.

(Brief adjournment)

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2 MS. ARLENE BOON: Thank you.

The valley is a special place in many ways,

and as a result the families tend to stay here.

There are a number of multi-generational families

live in the valley on the same land that their

families homesteaded who have their own deep-rooted

attachments similar to ours.

They have developed a self-sustainable -self-sufficient, sustainable lifestyle in tune with
the valley. They have an appreciation for the
farmland, the river, the forest, the grassland
hills and all the other features that are blended
together in this unique valley.

Furthermore, this stretch of valley is a special place for many people who do not live in the valley but have their own attachment to it for various reasons. We are constantly reminded of this by the many visitors who encounter -- who we encounter who are drawn to the valley and are horrified to think that most of this -- that it will be lost by a reservoir.

We have had a few visitors to our home who were in favour of the dam but slowly changed their mind as they spent time in the valley. Over the

1 years we have seen the effects happening to some 2 BC Hydro employees working on the Site C file, but after a while for some reason we don't see them 3 4 anymore. 5 BC Hydro fails to acknowledge the involuntary 6 displacement in the EIS. A study which explored 7 the experience of farmers and ranchers who were involved in an involuntary displace by the Oldman 8 9 River dam in southern Alberta concluded that while 10 families and land owners were compensated 11 financially for the market value of their buildings 12 and land, the loss of their home was neither 13 acknowledged or valued. It is important to remember that in addition 14 15 to not wishing to sell their land, most of the 16 people in this valley are opposed to the project, 17 and many are actively engaged in fighting the 18 project. 19 MR. KEN BOON: Any project that has a 20 27,000-page environmental impact statement 21 obviously has a big environmental impact. Almost 22 every aspect of the Site C project is negative. 23 Much of the 7.9 billion-dollar price tag for Site C 24 is needed for things that have nothing do with 2.5 producing electricity. A large amount of money

presumably will be used for countless mitigation,

legacy and compensation measures that have been

identified, often with results that would be

unsatisfactory.

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In fact, BC Hydro acknowledges in the EIS that many adverse effects of the project cannot be mitigated and are given a determination of significance.

Northeast BC is a very resource-rich area and the extractions of these resources have a very real environmental impact.

Furthermore, the expansion of the shale gas sector is expected to expand if LNG exports become a reality. The EIS fails to look at these and other cumulative impacts on the region. Perhaps the most obvious oversight is the failure to consider the accumulative impacts from the previous dams up river.

In our opinion, these and other issues with this project do not adhere to the principles of sustainability as proposed in here in document number 1644, which is a proposal for a frame work for sustainability-based assessment for the Site C joint panel review.

For an example of this, let's look at a

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snapshot of the highway realignment required in our little stretch of Bear Flat. So what we've done here is taken -- this is an aerial photograph looking north over top of our place, and you can see the existing highway, and then the black line is where we draw in -- where the new highway would go as proposed by BC Hydro on their maps, so -- and most of the highway on the bottom part there would all be submerged by reservoir, so that's why of course the highway is getting moved up north, and of course all that farmland and everything else down below there.

So we'll pretend we're coming in from the top right side. That's the east side, and we're driving west towards Hudson's Hope. So driving west on Highway 29 from Fort St. John, one comes down the steep hill into Bear Flat. Part way down, the highway has to be relocated with a sharper corner to avoid the reservoir. Then the new road goes through class 1 and 2 farmland until it runs right through our home. That's where the first arrow is there. And that's not just our house, but that's Arlene 's mom's house and our whole yard there.

Then the little 2.5 million-dollar existing

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bridge is bypassed for a new mega project. Almost a quarter mile long to cross a deep canyon over the new reservoir. Normally a new causeway of this magnitude would involve a grand opening with the Premier in attendance, but, no, this is just a byproduct of trying to put a highway alongside a reservoir to replace a perfectly good existing road.

The road then goes right through a major arc site, just missing a grave site, which is now under water to run right into an active First Nations' sweat lodge, and then it runs right through the middle of our campground, and its entire infrastructure, and that's the arrow you see on the left-hand side. Then the new road carries on doing more destruction on other people's land for a total of 8.5 kilometres.

Now, as mentioned this is the just the Bear Flat stretch, so there are many more areas similar to this, and the Halfway River part is really crazy. This in our opinion is not sustainable development.

Do we truly need this electricity? Even if we do, in this day and age, is this still the best way to produce it? We say not.

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Having lived in the valley threatened with destruction from a proposed hydro dam for many years, Arlene and I have developed an interest in energy use and production. We have become conscious of our own consumption, and have taken many steps to try to reduce wasteful practices and are aware there is more to do yet. Our society has only scratched the surface for potential savings through conservation.

We live in a province with tremendous opportunity to develop clean and green alternatives, but we seem to be lacking the political will to do so. Our government has been very openly supportive of the Site C dam, and it is frustrating for many of us to see the measures taken by them to promote it at the expense of the lost of opportunity of pursuing other methods.

Due to the *Clean Energy Act*, the only major new infrastructure project BC Hydro can pursue themselves is the Site C dam. That is still reflected in the latest IRP where the emphasis is on the Site C dam.

BC has many other options we should be actively using. Many of these have been highlighted in the last two days, and the following

is just one small example of that Arlene and I can speak to.

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Arlene and I have an agreement with BC Hydro whereby we installed 14 solar panels and net metering back into the grid. BC Hydro has an interconnections department to deal with people like us who wish to grid tie with solar panels, wind turbines, et cetera. Whereby instead of charging batteries when more power is produced and consumed, the excess power is fed back into the BC Hydro grid system and people receive a credit on their bill.

Net metering in our opinion is the 100 mile diet of electricity. Our excess power is likely used by our neighbours. We are all getting smart meters, and with net metering, we make the grid smart. The existing infrastructure is put to greater use with electrons flowing both ways as required and with no need for expensive expansion of the infrastructure. Net metering is also the perfect incentive program to conserve electricity, because people realize it is possible to receive a credit instead of a bill in the mail through the combination of conserving and produce electricity. And as individuals, you know, it's impossible for

us to produce fossil fuel, but it's really quite
easy to produce electricity.

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And with the recent rate hikes in BC, the payback on net metering systems will be more feasible as well.

However, it remains one of the best kept secrets from the general public, and it's not publicly promoted at all. As of the spring of this year, BC Hydro's net metering program had a total of 228 projects installed. Like, in our opinion, that should be much higher. I am told that BC is one of the few jurisdictions in North America where there is not an incentive program in place to help encourage consumers to take part in that metering, but we are also told that Alberta and even Texas does have that.

Strictly from an energy security point of view, we question the wisdom of our province relying on so much of -- relying on a series of hydro dams on just two rivers for such a large percentage of its powering. And let's not forget the W.A.C. Bennett Dam sink holes back in 1996 and the uncertainly of climate change effects on electricity.

In our opinion, what we need to do is upgrade

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existing facilities, pursue a mix of clean and green renewables, including geothermal, net metering, demand side management, and then top it up with some sensible use of natural gas, and that would give us a truly diverse and perhaps in Christy Clark's words, world class portfolio.

The Peace River valley is a low-elevation river valley in the far north with a unique microclimate, far removed from any comparable farmland. Much of the land we farm at Bear Flat is class 1 and 2 farmland.

This valley has the only class 1 land north of Quesnel in the province of BC. Corn will always mature in our garden, and melons that are started under cover will ripen in the garden as well. The river bottom soil types are perfectly suited to large scale mechanical harvesting of potatoes and other rooted-type vegetables. The Peace River country of BC and Alberta has many thousands of acres of acres of good grain farm and country, but the irreplaceable value of the threatened river valley is its ability for market garden production. With rising fossil fuel prices, rising demand for local food production, uncertainty with future climate change impacts and concern for future

1 northern food security, to purposely flood this
2 valley is madness.

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Site C would involve the largest extraction of high-capability farmland from the agricultural land reserve in British Columbia for a single project by far. This is proposed in the province where less than 5 percent of our area is arable farmland, and we produce only about 45 percent of our food. Meanwhile, we're arguably self-sufficient with electricity right now, and we have so many other options to be self-sufficient in the future without flooding farmland.

Where is the protection for this farmland?
Will the Agricultural Land Commission receive an application for the removal of this land from the agricultural land reserves? How about the provincial interest clause under the Agricultural

Land Commission Act?

Its use would require the provincial government to hold hearings throughout the province. I understand the first criteria under that clause is protection of farmland.

As BC residents, BC Hydro customers and affected landowners, it seems that our rights are being trampled by the push to build Site C. The

1	Crown grants and that's a copy of a Crown grant
2	right there that Arlene's holding for our home
3	quarter. The Crown grants for various titles of
4	land make it abundantly clear that the government
5	or in this case BC Hydro cannot take the land
6	necessary for the proposed reservoir.
7	The various Crown grant historic titles have
8	different wording depending on their vintage, and
9	the following example that I'll read is from our
10	home quarter Crown grant that's written right on
11	that right there. And that was granted in
12	September 15th of 1926, where it says:
13	
14	"So as nevertheless that the
15	land so to be resumed and taken,
16	shall not exceed 120th part of the
17	area hereby granted."
18	
19	Now, this is on a quarter section that would
20	all be needed by BC Hydro for Site C. So a hundred
21	percent of it's gone.
22	Now, where our society expects that the use
23	of the Crown's power of expropriation be reserved
24	for where it is required for a public need or
25	benefit, there is a problem. Who needs this power?

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Our political leaders keep telling us that they
believe that Site C is needed for industrial use
such as LNG and powering the Horn River Basin. So
then we ask: Is your society prepared to see land
expropriated to flood a river valley for the
benefit of industrial uses by corporations for
profit?

Furthermore, the flood reserve was only placed on Crown land in the valley to an elevation of 1,525 feet above sea level in 1957. However, it was not placed on private property. And, therefore, our titles do not have any mention of a flood reserve or any such charges, liens or interest. The fact that this government has not permitted BC Utilities Commission oversight at this project is not only shameful but could result in a financial disaster.

In fact, it could be argued that it already has. The Site C project has cost around \$300 million so far, and this has not been paid for. That cost has been deferred, a practice slammed by our auditor general of BC. I mean, it would also be a sad irony that the people who lose their land would end up paying increased rates to pay for this destructive mega project.

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Much will be said on wildlife issues, and we do have our own wildlife report attachment as mentioned earlier, and it's on the written submission that we submitted earlier. However, due to time constraints, I just want to tell a couple short stories on wildlife in the valley. This first one, it's an example of a specific incident that we have seen firsthand and never been captured or reported in a BC Hydro funded study.

On April 13 and 14 of 2012, a widespread spring snowstorm swept through the entire northeast of BC. However, as often happens in these spring and fall storms, it came mostly as rain down in the Peace River Valley bottoms. So where the entire northeast was covered in several inches of wet snow, the Peace River Valley was still bare ground and was likely the only such place for hundreds of miles.

And then we started to notice robins everywhere, and then more and more robins. And it got to the point where there were thousands of robins around our home. Our river bottom field is 140 acres in size. And we estimated there was 2-to 3,000 robins just there. I actually saw an albino robin among them.

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We noticed traffic slowing down on the highway to avoid hitting them. I drove to the west end of Bear Flat, and there were just as many robins in the fields there as well. There were many other birds as well and many hawks swooping in trying to kill what they could. From talking with neighbours, this situation occurred all through the valley, up towards Hudson's Hope. These conditions lasted for two days and the river valley was likely key to the survival of many of these birds. A reservoir would take this unique and essential feature away from the north forever.

For that reason and all the other arguments we're hearing, our society has to scrap the Site C project, remove the flood reserve, and move forward with options that are not so disruptive.

In closing I just want to tell one more wildlife story. Just over three weeks ago, on Sunday afternoon of November 17th, Arlene and I decided to take a break from working on our written submission for these hearings and go for a walk. It was snowing and about minus 13 degrees. We crossed Cache Creek and climbed up to the grave site point when we struck fresh tracks from a fair-sized grizzly bear in the snow. From our

1 vantage point, we followed his tracks with binoculars as best we could to see where he crossed 2 3 Highway 29, and he headed into the river flat bush going south towards the river. 4 5 Almost every year in November we strike a 6 grizzly track following this same general route. 7 Where does he spend his summer? Where is his den? What will he do if one fall he comes through and 8 9 there's a reservoir in his way that is over 1 10 kilometre wide at that point and with sloughed-in 11 banks? I guess we will never know since the 12 grizzly and black bears were not included in the 13 studies for this project. We hope that our grandkids and their grandkids can continue to see 14 15 the tracks of a grizzly bear in a November 16 snowstorm heading to its den in the valley. 17 Thank you. And we welcome any questions. 18 MR. CHAIRMAN: Thank you very much. 19 (Applause) 20 MR. CHAIRMAN: Please, hold your applause 21 for a more public occasion. 22 I looked at my watch and just to discover 23 that you were perfectly on time, and it was I who 24 had forgot to allow people to ask questions of Hydro. So what I would propose is that we -- while 2.5

you're on the stands ask if anybody in the audience has some questions they would like to put to you,
has some questions they would like to put to you,
and then we'll come back to Hydro and see if there
are questions relating to their introductory
remarks.
So questions for the Boons?
Madam Beaudet.
MS. BEAUDET: Thank you, Mr. Chairman.
Living so many years in the valley and
witnessing an event like you had with the robins,
are there any other major events that have an
impact like this one that you'd like to tell us
about in terms of observing wildlife?
MR. BOON: Well, I would say every year
at certain times we see wildlife events that are
unique to the valley. Where we live, there is a
lot of wildlife in the north country here, but
especially in the late winter/early spring when the
hillside start bearing off, we notice every year
that's such a key, key time and area for the
wildlife to utilize those hill sites. At home
we have a lot of mule deer at home, but we don't
see very many white tail throughout the year. They
stay in the north country and then the bush country
and the top benches. But sometimes there's a

1 two-week stretch there where we'll see, you know, dozens or even hundreds of them on them hillsides. 2 3 And because that's so key to their survival at that time. And then once the snow melts in the back 4 5 country, then they move back. But there's a short 6 period of time there where it's so critical. 7 And the robin event -- we've seen that robin event actually several times. And I would say 8 9 almost every second year there's -- either in the 10 spring or in fall there's one of those snowstorms, 11 but it will not snow in the valley. And you know, 12 it's just an elevation thing and microclimate 13 thing. And there's a definite heavy snow line. And sometimes it's just -- it's even on our flat. 14 15 You know, our flat looks flat, but it's does 16 slow -- slowly slope up. And sometimes it's right 17 just past our house, and -- and there's just birds 18 everywhere. And I always talk about it with the 19 neighbours up the valley, and they see the same 20 thing. 21 MS. BEAUDET: Thank you. 22 BC Hydro, do you have any comments on that? 23 You want to reserve any comments when we do the 24 wildlife section? 2.5 MS. YURKOVICH: Yes. I think that was our

1		understanding as we would cover that off at	the
2		topic specific.	
3	MS. BE	EAUDET: I'd like to go on to a	nother
4		aspect which is the impact lines of the rese	rvoir,
5		and I believe we have Ms. Reynier here today	, so
6		we'll take advantage of your presence.	
7		I think it would be useful for us to	
8		understand when you have people impacted on	the
9		land like that, how do you determine what is	
10		impacted? Do you go according to your flood	impact
11		line or your erosion impact line? If we cou	ld put
12		on the screen figure 11.2.10, that would hel	p the
13		discussion.	
14	MS. YU	URKOVICH: Madam Beaudet, would y	ou like
15		us to wait until the figure is up?	
16	MS. BE	EAUDET: Yeah, I think it will	be
17		useful.	
18		Yes, please, go ahead.	
19	MS. RE	EYNIER: Would it be helpful if	I
20		introduced myself and told you what my role	was on
21		the project?	
22		So my name is Judith Reynier, spelled,	
23		R-e-y-n-i-e-r. I'm the manager of the prope	rties
24		department for the Site C project. I work w	ith a
25		team of approximately ten people, and what w	e are

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charged with is the responsibility of acquiring and managing the land and rights that are required for the project. So one of the first things that we had to do was determine what that land and what those rights were. And we've described that in Chapter 11.3. But if you would like me to discuss the figure that's on the -- sorry, the map that's up. So we would acquire -- the land that's flooded, we would acquire in fee simple as well as the lands that's required for the highway realignment. And there are six sections where the highway is realigned for the project.

We would also acquire land in fee simple for the dam site and any permanent structures.

Our mandate is to maximize the flexibility of land use and to minimize the amount of land that's taken for the project. So we were asked to do that by the BCUC in 1983. So what we will be doing is where there isn't a need to buy land in fee simple because it's totally taken by the project. We're going to buy a statutory -- we'll require rights in the form of a statutory right of way. So that's limited rights on the land. The land owner still owns the underlying land. And the rights provide for BC Hydro's -- for the effects of the project in

1 the case of the impact lines, for the erosion 2 impact line, the flood impact line and the 3 stability impact line. Within those zones, certain uses are safe and therefore allowable. 4 5 Other areas where BC Hydro would acquire land 6 or temporary rights to the land would be where 7 there's a shorter use of the land, for example, an access road to a clearing site. So we would get --8 9 acquire temporary rights for something that had a 10 short-term need. 11 So the engineers did the studies and have 12 drafted the impact lines around the reservoir. 13 what we've done is we've been to each of the 14 property owners who stand to be affected by those 15 impact lines and discussed the impact lines in 16 relation to their individual properties. 17 We were able to sit down with I would say 18 about 90 percent of the people who are in that 19 position. Other people had told us they just 20 wanted the information by mail. And I think there 21 were three people in the entire reservoir that we 22 simply haven't been able to get ahold of. 23 MS. BEAUDET: What happens when you have 24 land acquired as Mrs. and Mr. Boon has acquired 2.5 through a government grant many, many years ago?

1		Because I believe tha	t quite a few families in the
2		valley, for instance,	when they came back from the
3		War as veterans they	got land, et cetera. So what
4		type of fee do you app	ply to that, or are you
5		allowed to acquire the	ose land?
6	MS.	REYNIER:	I'm sorry, you said, what
7		kind of	
8	MS.	BEAUDET:	You were talking of single
9		[sic] fee earlier.	
10	MS.	REYNIER:	Fee simple. Fee simple.
11	MS.	BEAUDET:	Okay.
12	MS.	REYNIER:	Yes. And that's the Crown
13		grants the Crown g	ranted lands that Mr. and
14		Mrs. Boon own are fee	simple lands.
15	MS.	BEAUDET:	Thank you.
16	MR.	CHAIRMAN:	While we have the Boons here,
17		I would like to ask,	you mentioned a complicated
18		process for taking the	e land out of the Agricultural
19		Land Reserve. Could	you describe that process,
20		please.	
21	MR.	BOON:	Yes. Well, because most
22		all of the land down	in the valley there, most of
23		it is covered by the A	Agricultural Land Reserve.
24		And so it's virtually	impossible to take any of
0.5			7 1

25 that land out of the land reserve. You know, it

1	has to be kept for agriculture purposes, so and
2	we were told that one time, this provincial
3	interest clause, when the framework of there was
4	actually a framework established at one time under
5	that clause, where if there was going to be a major
6	extraction of farmland such as this, it would
7	require public hearings throughout the province.
8	And in fact, the example they used as a possible
9	project was Site C dam. This was told to us by the
10	former head of the ALC, Kirk Miller. And so and
11	I don't know what's happened to that. We don't
12	hear anything we don't hear any talk about
13	that's going to be the case and that there is going
14	to be separate hearings for such a major extraction
15	of farmland. In fact, maybe BC Hydro could answer
16	that question.
17	MR. CHAIRMAN: Well, maybe we should take
18	advantage of Ms. Reynier's presence and ask what is
19	your understanding of getting land out of the ALR?
20	MS. REYNIER: I'm actually going to pass
21	that to Susan, to Susan Yurkovich to answer.
22	MS. YURKOVICH: Yes. So there is a process
23	that would be required under the Agriculture Land
24	Commission. Our understanding is should this
25	project he successful in achieving certification

1	the government would determine how those lands
2	would be removed if they would be removed.
3	MR. CHAIRMAN: I see. In the possible case
4	that some land owners within the affected area did
5	not wish to sell or didn't like your price or
6	something like that, what happens then?
7	MS. REYNIER: So BC Hydro's preferred
8	option and far and away the most commonly used
9	option is to negotiate a settlement with
10	landowners. So landowner the conversation is
11	prescribed in legislation about how to compensate
12	landowners, and they're entitled to compensation
13	for the land and any buildings that are on it. And
14	compensation would be due for the statutory right
15	of way.
16	There are other elements of compensation that
17	are also included, for example, business loss. If
18	somebody's operating a business from the land,
19	they're entitled to the business loss for that.
20	Timber values, if the Crown grant contains the
21	timber in it, then possibly the value of the timber
22	would be compensable. Things like moving costs,
23	getting expert advice, whether it be from land
24	appraisers or gravologists or lawyers. Those
25	items, those elements of compensation are all

1		compensable.	
2	MR.	CHAIRMAN:	That assumes a negotiated
3		agreement, does it?	
4	MS.	REYNIER:	That is that assumes a
5		negotiated agreemen	ıt.
6	MR.	CHAIRMAN:	And in an extreme, if that's
7		not possible, what	happens?
8	MS.	REYNIER:	If that's not possible
9		BC Hydro does have	the power of expropriation under
10		section 16 of the E	BC Hydro and Power Authority Act.
11	MR.	CHAIRMAN:	Thank you. Are there other
12		questions that peop	ole would like to raise up?
13		We have one a	and two. Go ahead.
14	MS.	CULLING:	Thank you Mr. Chair.
15		My name is Di	ane Culling, C-u-l-l-i-n-g.
16		So the questi	on that I have is with respect
17		to the slide of the	e cabin that was on the edge of
18		the Williston reser	rvoir. And given that the
19		Williston reservoir	, the erosion impacts have
20		continued for the m	many decades since impoundment,
21		and I believe that	they actually exceeded what
22		BC Hydro projected	at that time. So I have my
23		question is twofold	d: what are the existing what
24		is the compensation	for lands that are impacted
25		from the existing W	Williston reservoir that lands

1		that are lost over lor	ng-time erosion and sloughing
2		at the current day, an	nd then what would
3		compensation be for lo	ong-term loss of lands
4		after if Site C wer	re to go through?
5	MR. C	CHAIRMAN:	Hydro?
6	MS. F	REYNIER:	So the lands around the
7		Williston reservoir we	ere purchased I believe it was
8		in the 1960s. I can o	check that for you, but I
9		believe it was in the	1960s. And what BC Hydro did
10		in that era was a long	g time ago. What they did in
11		that era was they pure	chased what they called
12		blanket easements. So	o it was temporary sorry,
13		it limited rights over	the entire parcel of land,
14		but it didn't preclude	uses the way I talked about
15		for the Site C project	
16		So what happened	d with the in the land
17		that's shown in the ph	noto is the then owner built a
18		building on a slope th	aat was subject to erosion.
19		And the document that	was in place didn't preclude
20		that person doing that	. So we've actually
21		since BC Hydro has	since purchased that piece of
22		land. That building d	disappeared a long, long time
23		ago and that piece of	land has been purchased by
24		BC Hydro.	
25	MS. C	CULLING:	That didn't actually answer

1	my question. I wasn't asking specifically about
2	that, that cabin. I was asking I know I
3	recreate on the Williston reservoir in the winter
4	and summer and am very familiar with the erosion.
5	And quite frankly, I think that the erosion this
6	is just a layperson's opinion certainly it
7	doesn't seem to be declining. It seems to be
8	you know, certainly the extent doesn't seem to be
9	declining, but I am familiar with the fact that
10	multiple properties along the Dunlevy Road have
11	lost land to erosion. So I'm not talking about
12	that specific piece of property. I'm talking about
13	the general practice.
14	MS. REYNIER: The purchasing of the blanket
14 15	MS. REYNIER: The purchasing of the blanket easements in the Williston area and the subsequent
	<u>.</u>
15	easements in the Williston area and the subsequent
15 16	easements in the Williston area and the subsequent erosion that happened, we, as I said before quite
15 16 17	easements in the Williston area and the subsequent erosion that happened, we, as I said before quite clearly, we're doing things differently on the
15 16 17 18	easements in the Williston area and the subsequent erosion that happened, we, as I said before quite clearly, we're doing things differently on the Site C project. We will not be doing that. We're
15 16 17 18 19	easements in the Williston area and the subsequent erosion that happened, we, as I said before quite clearly, we're doing things differently on the Site C project. We will not be doing that. We're buying a statutory right of way to cover the area
15 16 17 18 19 20	easements in the Williston area and the subsequent erosion that happened, we, as I said before quite clearly, we're doing things differently on the Site C project. We will not be doing that. We're buying a statutory right of way to cover the area from the stability impact line right down to the
15 16 17 18 19 20 21	easements in the Williston area and the subsequent erosion that happened, we, as I said before quite clearly, we're doing things differently on the Site C project. We will not be doing that. We're buying a statutory right of way to cover the area from the stability impact line right down to the edge of the flooding. And within that document we
15 16 17 18 19 20 21 22	easements in the Williston area and the subsequent erosion that happened, we, as I said before quite clearly, we're doing things differently on the Site C project. We will not be doing that. We're buying a statutory right of way to cover the area from the stability impact line right down to the edge of the flooding. And within that document we will preclude the building of residences so that

- BC Hydro buys the right of way, the property owners are compensated for the right of way.
- 3 MR. CHAIRMAN: Do you have a supplementary
- 4 question?
- 5 MS. CULLING: Yes. Just if I could
- 6 clarify, then -- so with -- on the existing Dunlevy
- 7 Road properties that have lost -- you know, I
- 8 believe one property has lost 50 percent of the
- 9 parcel. So that property was compensated in
- 10 current day for the value of the land that they've
- lost or it wasn't? For those landowners who are --
- so I'd like to know if there is anything with the
- properties that we were seeing losing land now, is
- there any compensation for those?
- 15 MR. CHAIRMAN: You're speaking with respect
- 16 to Williston Lake?
- 17 MS. CULLING: Right, right.
- 18 MR. CHAIRMAN: Okay. All right. I
- 19 understand.
- 20 MS. CULLING: To understand -- yeah. And I
- 21 appreciate the ...
- 22 MR. CHAIRMAN: Do you have a comment about
- current problems on Williston?
- 24 MS. REYNIER: We are talking to the
- property owners, there's about 21 of them, I think,

1		in total. And we're	currently speaking to them and
2		negotiating for the a	cquisition of additional
3		rights on their land,	and I I yeah.
4	MS. C	CULLING:	Thank you.
5	MR. C	CHAIRMAN:	Thank you.
6		Madame Beaudet	has a question and a
7		clarification.	
8	MS. E	BEAUDET:	Let us summarize here. So
9		you don't think diffe	erently for Site C, we agree.
10		You will buy the land	or negotiate to buy the land
11		or expropriate the la	and that will be flooded.
12		After that, you say t	hat you're going to buy right
13		of way but preclude p	eople to do anything with the
14		right of way between	the flood line and the
15		stability impact line	e, or is it the erosion impact
16		line on this map ther	re? Which one, please?
17	MS. F	REYNIER:	No, it's certainly not to
18		preclude that the pro	perty owner does anything.
19		The idea of putting a	statutory right of way in
20		place rather than buy	ring the land is to actually
21		allow for that land u	se flexibility. So for
22		example, the farming	of the land could continue to
23		go on. And with furt	her geotechnical review, it
24		may be possible that	buildings can remain even in
25		that area. We would	need to check the exact piece

1		of land because it va	ries quite a lot up and down
2		the reservoir.	
3	MS.	BEAUDET:	If eventually there is a loss
4		of building or loss of	f use, then you will
5		compensate when that l	nappens?
6	MS.	REYNIER:	Yes.
7	MS.	BEAUDET:	Thank you.
8	MR.	CHAIRMAN:	Ma'am.
9	MS.	PHILLIPS:	My name is Rosemary Phillips.
10		I've been a resident	of the Peace River for over
11		25, 30 years. And so	I'm very much interested in
12		saving this valley.	
13		My question is	I'm back to that cabin.
14		And the soil around the	ne banks has eroded. It's
15		sedimentary soil. And	d it's montamoraphillic
16		[phonetic] I can't	pronounce it that well.
17		Montmorillonite clay.	It will always be sloughing.
18		What study has been do	one that this will continue?
19		Because our river val	ley will go down the river and
20		the land will be lost	forever. So I'd like to
21		direct this question	to BC Hydro: How much study
22		has been done on this	type of clay?
23	MR.	CHAIRMAN:	Hydro?
24	MS.	PHILLIPS:	There has been some research,

I've submitted a written submission, and I

1		addressed that. And	the Montmorillonite clay is a
2		serious problem. How	much study have you done on
3		that?	
4	MR. N	NUNN:	Mr. Chair.
5	MR. C	CHAIRMAN:	Mr. Nunn.
6	MR. N	NUNN:	Volume 2, appendix B,
7		section 2 contains a	technical data report which
8		basically describes a	ll the investigations along
9		the reservoir shoreli	ne and the various geological
10		sections which exist	there. And those specific
11		geotechnical conditio	ns have been taken into
12		account in establishi	ng the impact lines.
13	MS. I	PHILLIPS:	This clay this type of
14		soil cannot be contro	lled. As the water rises, the
15		soil will there's	going to be an incline, and
16		the gravitational for	ces will force the land into
17		the river. Nobody ca	n control that. So what kind
18		of a study did you do	about this particular soil?
19		That's what I'd like	to I'd like to address that
20		and find out this inf	ormation where this study was
21		done.	
22	MR. C	CHAIRMAN:	Mr. Nunn?
23	MR. N	NUNN:	Mr. Chair, that was all taken
24		into account in those	studies. There aren't the
25		Montmorillonite clay	does exist in some of the

1		glacial lacustrine deposits. There was a study
2		done by BGC Consultants. They're the expert on
3		that matter. They'll be in the topic-specific
4		session on January the 14th when we get into more
5		detail. But I think it's fair to say that the
6		processes which have been described by the speaker
7		have been recognized and taken into account in the
8		analysis, and that is what results in the erosion
9		impact line and the stability impact line based on
10		the specifics of the geology and every section
11		around the reservoir.
12	MR.	CHAIRMAN: Thank you.
13		We will be returning to geo technical
14		questions at a topic specific section in January.
15	MS.	PHILLIPS: I can find a place where this
16		has been studied. You know, is there a clause
17		where I can take a look and see exactly what's been
18		done so far because
19	MR.	CHAIRMAN: Yes. Yes, there is. And may
20		I ask you to have a word with Hydro offline about
21		that because I know that they do have some work on
22		that.
23	MS.	PHILLIPS: Okay. Thank you.
24	MR.	CHAIRMAN: Thank you.
25		Chief Willson.

1 CHIEF WILLSON: Thank you, Mr. Chair. Good 2 We heard earlier during the Boons' afternoon. 3 presentation about the grizzly bear, there is a Yellowstone to Yukon conservation initiative going 4 5 right now on trying to protect the last remaining 6 habitat of grizzly bear from the Yukon all the way 7 down to Yellowstone. They've identified in their conservation document the pinch point of this whole 8 9 conservation area is the Peace break. This area that's being identified as the inundation zone 10 11 Site C. 12 An a part of our so-called consultation 13 process, the Treaty 8 First Nations requested numerous times studies being done -- to be done on 14 15 bear, especially grizzly bear because they are a 16 special animal for us. I would like to know why 17 grizzly bear were not studied, or bear at all in 18 this area? We have pictures. There are bear 19 there. You've heard earlier that the grizzly bear 20 has been there. 21 MR. CHAIRMAN: Chief Willson, that specific 22 question I'm sure is going to come up in the 23 topical session on wildlife in some detail. 24 Hydro has an immediate response to that, it might be helpful. 2.5

1	MS. JACKSON:	Thank you, Mr. Chair.
2	As y	ou mentioned we will be having our
3	experts at	tending the wildlife sessions in January
4	to speak to	o this in detail. We've also responded
5	in several	of the information requests throughout
6	the spring	and fall on this topic.
7	In g	eneral terms, we established this study
8	program beg	ginning in 2007 and 2008. It included
9	consultation	on and advice from the Ministry of
LO	Environmen	t locally. With their input, the program
L1	at the time	e and as we continued did not focus on
L2	bears, gri	zzly bears, for one reason, primarily
L3	because the	ey're considered to be not not
L 4	substantia	lly present in a population in the valley
L 5	of which	n is advice from the Ministry of
L 6	Environmen	t. Black bear are commonly found on the
L 7	landscape a	and were not considered to be a
L 8	vulnerable	species or a species considered
L 9	vulnerable	. And for those reasons, the program
20	didn't foc	us on bears at the time.
21	MR. CHAIRMAN:	I'm thinking of that bear
22	that comes	down the hillside in November. Is he or
23	his way to	Yellowstone for the winter?
24	Next	speaker.

Presentation by Jim Little:

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2 MR. LITTLE: Yes, thanks.

It's Jim Little, L-i-t-t-l-e. And I'm going
to qualify some of what I'm going to say. I'm a

professional agrologist, professional forester and
a professional appraiser.

To speak to just -- shortly to speak on Williston Lake, I was involved with the land settlement stuff on Williston Lake because I worked for the BC Government at that time in the lands department.

For 35 years of my history was with BC government and lands. The land that was traded on the Williston reservoir, what Hydro did was they acquired Crown land and traded it for some of the private land that they flooded under Williston

Lake. And at that time some of my recommendations that I find which are on record on those files that said — suggested that those lands were erodible and could easily fall under the deal, but to accomplish the settlements with the landowners, they went ahead with it. So now we are compensating again. So that point made.

To go on further in terms of the Agricultural Land Commission, which I've done a lot of stuff

1		with and was partly involved with the creation of
2		the land reserves in the Peace River and that
3		because we had to review that in my capacity in
4		government at that time.
5		To remove land in the ALR is significantly
6		hard. And you're allowed to do certain actions on
7		agriculture land reserves, but to do that you have
8		to get their permission if you're going to put a
9		gravel pit and so on, so forth.
10		But in the cases of Hydro for this reservoir,
11		it goes beyond that. The government's already said
12		how they would deal with that. They will do it by
13		Cabinet order. They'll just the land commission
14		will have little to no end to that. They've
15		already said that politically.
16	MR.	CHAIRMAN: Sorry, could you slow down.
17		Transcription is having trouble keeping up with
18		you.
19	MR.	LITTLE: I'm sorry. I'm sorry.
20	MR.	CHAIRMAN: Thank you.
21	MR.	LITTLE: They have said that's how it
22		would be dealt. And then to put some truth to
23		that, as we've already heard, the Ministry of
24		Agriculture is stating he's in favour of the
25		project and he also looks after the land

1	commission. So I think that covers itself.
2	The final point I'll make, and that's to do
3	with the Boons' presentation. I think it was a
4	good presentation. But beyond that, they didn't
5	mention some of the stuff that they are doing,
6	which is co-operation. They are doing it is
7	co-operation with the government. They have a
8	significant gravel quarry on their properties which
9	supplies the provincial government with significant
LO	aggregate and road services and material for the
L1	province. And that is within their lands. So as
L2	much as that they're saying we would not like the
L3	government to do stuff on our lands, they more than
L 4	cooperated at this point in time to assist in
L 5	government to accomplish a lot of development and
L 6	stuff in this area.
L 7	Thank you very much.
L 8	MR. CHAIRMAN: Thank you.
L 9	The gentleman yes, sir.
20	MR. APSASSIN: Clarence Apsassin. I'm a
21	member of Blueberry First Nation and also a member
22	of Treaty 8 Territory.
23	My question to BC Hydro is quite a simple
24	one. Before the treaty was signed in 1899, how was
2.5	the compensation handled? In terms of the use of

the land, how is that compensation going to be handled today?

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We've used the land in the Peace River since my great-great grandfather signed the Treaty and my great-great grandfather beyond that. I know stories of the land use in the Tettachi area through the Moberly Lake, the shortcuts that were taken in the Peace River, the crossings and those lands.

In terms of the compensation that you guys are talking about for the fee simple lands, land being held in today's terminology, I hear from BC Hydro is that they have to go to the cabinets, they have to go to the government and the government determines on those compensations are going to be paid to the landowners.

How is that going to be looked at in terms of the First Nations' land use that's taken away from us, that we've used for decades and years in the valley where we fished and hunted and harvested in those specific areas?

We do not camp there anymore out of respect of the farmers that live there in those areas. We have specific sites that we've travelled through there and hunted and harvested wildlife that's

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sustained us for time on end. How is that going to be compensated in today's terminology? How are you going to determine the loss over the decades before the Treaty was signed?

We were Aboriginal owners of that land before the Treaty was signed. The Treaty was signed in 1899. The first white man came into this country was 1793. Actually it was in 1780 I heard from my great grandfather's stories up in that area. So how is BC Hydro going to determine the compensation for the First Nations also of the land use that's being lost today for the last how many years?

Even in the Williston Lake area, for example, do you guys have answers for those? How are we going to do this? How is the government going to determine it? How is BC Hydro going to do this? Because I think in my own opinion, it will be hard to do. You're going to have to sit down with not only the First Nations but the landowners collectively and gotta come up with a strategy to do that.

But also, remember, by doing this, we're not actually negotiating for the loss of the land in the valley at all. We do not want that flooded.

So we can't predetermine, can't prenegotiate this

1	by hearings like this.
2	It's like the consultation process. What is
3	consultation versus what's real and what's not, for
4	example? So that's my question.
5	Thank you.
6	MR. CHAIRMAN: Thank you. That was a
7	powerful question and seems to encapsulate a great
8	deal of the history of the country right there. We
9	will be spending some time on Aboriginal rights and
10	Treaty rights later on, But I would certainly allow
11	Hydro a brief response at this time.
12	MR. PROVERBS: Okay. Thank you, Mr. Chair.
13	My name is Trevor Proverbs, last name is
14	spelled P-r-o-v-e-r-b-s. I'm the director of First
15	Nations engagement.
16	The issue of land use and land loss since the
17	treaties were signed, we're not in a position
18	really to deal with that as part of this process.
19	Having said that, the referenced the
20	Williston reservoir and the Bennett dam. There is
21	a process in place with BC Hydro through the
22	Aboriginal relations branch to deal with any
23	grievance issues that are associated with that
24	infrastructure. And that process is ongoing and
25	First Nations are in a position to bring their

1	grievances to BC Hydro on that front.
2	In terms of the Site C process, the process
3	really goes to the discussions that we're having
4	with Aboriginal groups around mitigation,
5	avoidance. And as part of the accommodation around
6	that, we have indicated that we're prepared to
7	enter into discussions with Aboriginal groups, with
8	First Nations that are affected by the project in
9	this area. And in some cases we are engaging in
10	those discussions around benefits from this project
11	at this time under which we call impact benefit
12	agreements.
13	MR. CHAIRMAN: Thank you for that.
14	That's I think a partial answer. Let me
15	suggest that we hear from one more speaker and then
16	turn to Treaty 8 who have brought a presentation.
17	Mr. Hendriks.
18	MR. HENDRIKS: Thank you.
19	Rick Hendriks with Treaty 8.
20	Thank you, Mr. and Mrs. Boon. I was not
21	aware that you were solar pioneers in the province.
22	And that leads me to a question for BC Hydro,
23	I'm wondering if I could get table 5.20 from the
24	EIS up on the screen, please. 5.20. 5.20. It's
25	on page 34 of the PDF of section 5.

1		While you're looking for that table 5.20, I
2		just wanted to ask BC Hydro, if I may
3		Mr. Chairman, this table is in the original EIS.
4		And I just wanted to confirm, which version of the
5		IRP that this table is based on?
6	MS.	SAVIDANT: This would be based on the
7		2010 resource options report, which would have been
8		included in the 2012 draft IRP. Updated
9		information was used in the evidentiary update
10		analysis of alternates.
11	MR.	HENDRIKS: Okay. I looked in the
12		evidentiary update, and I didn't see an update to
13		this particular table. But I did notice an update
14		in the IRP that was filed as evidence yesterday.
15		And I'm just waiting for the table to come up
16		here.
17		And I'm presuming that the table in that
18		the IRP that was released a couple of weeks ago is
19		based on the 2013 resource options report; is
20		that's correct?
21	MR.	CHAIRMAN: Sorry, could you just tell
22		everybody in the room what this is about.
23	MR.	HENDRIKS: Sure. This table yeah,
24		it's a bit difficult to see. I don't know if we
25		can zoom in at all But this is a list of the

1 hypothetical solar projects. BC Hydro can perhaps 2 elaborate if I get this wrong. Hypothetical solar 3 projects of a capacity of 5 megawatts. And they picked various sites throughout the province. 4 5 This is a table of hypothetical solar sites. 6 And they're each of a 5 megawatt capacity at 7 various locations throughout the province. And on the far right is what's called the UEC at POI which 8 9 means the unit energy cost at the point of interconnection. 10 11 So the best solar resource in the province is 12 in the southeast, so the east Kootenay project 13 reflects that. And it has a price in this table of 14 \$382 per megawatt hour. And then in the material 15 that was filed with the new IRP, that price has 16 dropped to \$266 per megawatt hour, which, by my 17 rough math, quickly is about a 35 percent drop 18 between the two resource options reports. 19 And I'm wondering if Hydro could comment on 20 the significance of that drop, in light of the 21 Boons' comments about being involved in the net 22 metering program, and --23 Mr. Chairman, just before MR. FELDBERG: 24 -- just while you're thinking about that question, 2.5 I note that we had a session for nearly two days on

1	need, purpose and alternatives, where these topics
2	were specifically addressed, and Mr. Hendriks was a
3	pretty keen participant in that process, presented
4	a paper; he asked many questions.
5	My concern if participants in those sessions
6	are going to ask follow-up questions in the next
7	sessions is that frankly there's little purpose to
8	the separation, and we don't have our experts here
9	on that. What we brought was the general Panel,
10	because we understood that to be the nature of
11	this, and I don't mind obviously when members of
12	the public come up and ask questions that touch on
13	those areas, because this is their only
14	opportunity, but it's a little bit different with
15	people like Mr. Hendriks.
16	MR. CHAIRMAN: Understood.
17	Let me suggest that Hydro simply undertake to
18	explain the decline in price or time. It's a very
19	interesting general question, and I'm sure there's
20	a perfectly sensible reason for it.
21	Thank you. Does that cover your point?
22	MR. HENDRIKS: Yeah, I would be okay if
23	Hydro wanted to take that away as an undertaking.
24	MR. CHAIRMAN: Yeah, they just did.
25	MR. HENDRIKS: Okay.

1	MR. CHAIRMAN: Thank you. All right.
2	Number 9, I think it is. 13? Good heavens.
3	
4	UNDERTAKING 13: Have Hydro explain the decline
5	in price or time
6	
7	MR. CHAIRMAN: Thank you very much Mr. and
8	Mrs. Boon.
9	I would now like to call on Treaty 8 First
10	Nations, Chief Logan.
11	
12	Presentation by Treaty 8 First Nations:
13	Tribal Chief Liz Logan
14	Chief Norman Davis
15	Chief Russell Lilly
16	Chief Lynette Tsakoza
17	Chief Roland Willson
18	
19	TRIBAL CHIEF LIZ LOGAN: Good afternoon, Mr. Chair and
20	Panel members.
21	I'd like to again introduce myself, I'm Liz
22	Logan.
23	What.
24	MR. CHAIRMAN: Sorry, When we have a Panel,
25	our transcription service needs a map of who is

1	here, so she's just going to get your names, if we
2	can do that. Thank you.
3	Thank you very much. Sorry for the
4	interruption.
5	Chief Logan.
6	TRIBAL CHIEF LIZ LOGAN: She asked me to give her
7	2 minutes.
8	Well, I won't get into my discussion. I'll
9	just introduce myself again.
10	My name is Liz Logan. I'm the Tribal Chief
11	of Treaty 8 Tribal Association, and I am here
12	sitting with four chiefs who are Dane Zaa people,
13	the original people of this land; we have Chief
14	Roland Willson from West Moberly First Nations; we
15	have Chief Russell Lilly from Halfway River First
16	Nations; Chief Lynette Tsakoza from Prophet River
17	First Nations; and Chief Norman Davis from Doig
18	River First Nations.
19	They represent the Dane Zaa people as I said
20	who have occupied this land for over 10,000 years.
21	This area that
22	MR. CHAIRMAN: Chief Logan, can you slow
23	down a little bit.
24	TRIBAL CHIEF LIZ LOGAN: Okay. Sorry.
25	These nations have polled their communities

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also. They sent out information packages to their communities by door to door and then went back with a questionnaire asking if they supported this project. They came back with a resounding 85 percent no. So that is the mandate from these four chiefs to move forward in this project.

So thank you, Panel, for allowing us to speak here today. The proposed Site C is something that has hung over the heads of our communities for a long, long time. We're looking forward to seeing you in our communities to give you more in-depth specific details about our concerns. And so we had asked to have more time this morning, but we were restricted to 20 minutes, so we're going to try and rush as quickly as we can through this.

We want you to hear directly from our elders who are very concerned and who have dealt with this looming project for many years. The memories are going to be difficult for some of those elders because revisiting this process again for the third time is just not a good thing in our minds and theirs. A lot of damage has been done by the two previous dam in our territories on this river, in this valley. This river has been declared the most endangered river in British Columbia by the Outdoor

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Recreation Council because of many, many factors, cultural, agriculture, et cetera. I'm here to tell you that the Peace River Valley is a special place. The area is irreplaceable and the idea of mitigating impacts is simply not possible in so many ways. The valley is a sacred place for our It is a home to many, many things, such as people. it's an important gathering place that the Boons referred to. One of the area is the Bear Flats, archaeological and heritage sites, spiritual sites, grave sites, a variety of wildlife sites and species, home to rare and medicinal plants that my people still rely on, a place to practice our Treaty rights. The list goes on. And as the Saulteau rep told you yesterday, it is our grocery store. It is our pharmacy and it is our pantry. There are no other rivers like the Peace River. And I know you will hear from a number of people from all different backgrounds about the importance of maintaining the Peace River Valley for future generations. The Dane Zaa people, again, you must understand that this valley is of very important significance to them and there's a huge cultural,

spiritual and emotional attachment to that valley.

It is the core area and the heartland of our people
and territory, and we are not going away, we -away from this Peace region.

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This project, if built, will impact everybody in this province not just the First Nations. Why? Because the rates are already going up. These are the core issues around this project that will impact everybody in British Columbia, not just us. The project is very, very expensive. The price has gone up since they started talking about this in the last few years. There are alternatives that are both more affordable and have fewer environmental impacts.

This process is occurring on top of many other industrial activities that are stretching our communities to their very limits.

We have been the cash register for this province since the late '40s. We're dealing with over almost 30,000 wells in our territory. Over 8 million cubic metres of timber are cut, four mines are active in our area, two big dam projects. And you're going to hear more specific detail on this from other individuals who will be presenting. In the words of one of our former leaders, and I hope he's here, he says our lands are dying a death

1		of 1,000 cuts; this will be the straw that will
2		break our mother earth's back in our territory.
3		BC Hydro and the Government act like this
4		project is a done deal. We have something to say
5		about that, and we appreciate the Joint Review
6		Panel has come into our territory to listen to us.
7		There's been a lot of talk, yes, but it's not
8		a balanced approach. That's truly and sincerely
9		considering our values and our input. A lot of us
10		say it's just lip service.
11		They're putting the cart before the horse.
12		It's always just all about the project. It's not
13		about relationship building.
14		This project and its impact violates our
15		Treaty rights, and we will speak more about that in
16		January. And you can't attach a dollar value to
17		that. Our Treaty rights are not for sale.
18		I think I'm going to pass it to Chief Roland
19		Willson.
20	CHIEF	WILLSON: Thank you, Liz.
21		Chair, I am Roland Willson, Chief of the West
22		Moberly First Nations. My community has adhered to
23		Treaty 8, 1914. We will be celebrating our 100th
24		year in the Treaty along with our sister community,
25		the Halfway River First Nations. We were one of

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the original Dane Zaa nations called the Hudson's

Hope Band. We have occupied the lands constantly

since time of memorial. I mentioned earlier that

there's a place just north of here, a few

kilometres called Charlie Lake Caves, which are

some of the earliest known sites of human

habitation in North American. It was our ancestors

that occupied that space.

I had also mentioned earlier that we're not opposed to the creation of energy. What we're opposed to is the flooding of this valley, and is an unnecessary impact being proposed by BC and BC Hydro in order to meet the energy demands the province has forecasted.

And the impacts from W.A.C. Bennett and the Peace Canyon dams are ongoing.

The sloughing that occurs on an annual basis from the raising and lowering of the waters during peak demand times as you saw it in images from the Boons' presentation, the cabins that have disappeared into the reservoir and the lands that have been gone.

The other impacts that have happened to that are the impacts to the wildlife. The caribou migration patterns that used to exist here do no

longer exist. We are in a state of emergency with caribou in our region.

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My age, I am 48 years old, and I have not been able to hunt a caribou in my territory. There are less than 400 caribou left in the South Peace.

The fish in the Williston reservoir are contaminated in methylmercury. Part of my presentation that you're going to see later, I will go more into that when you go into the community.

The treaty that we have signed, part of the treaty is an oral promise that there will be no forced interference with our mode of life, that we'll be able to carry on a promised way of life after the signing of the treaty as if we had never entered into the treaty.

My son most likely won't be able to hunt caribou in our own territory. We have had elders pass on and have lost vital information on the use and the practices of our way of life. And lots of it due to this, the caribou, the fish. There's a big focus on caribou, the mountain sheep, the mountain goat. BC Hydro refuses to discuss with us the impacts of grizzly bear on here, formally stating that there are no grizzly bear in the area even after we show them pictures of it, even after

they hear the stories of seeing the tracks in the snow.

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The flooding of the Williston reservoir is an ongoing impact that we have never had a resolve to. We've asked for an cumulative impact study to exam the level of impact that has already transpired on We asked for a regional strategic the land. environmental assessment to be done to take a look at what's coming from Site C. Site C is not just the flooding of the Valley. Site C opens the door to future developments. This, where we're sitting right now is the Montey shale gas place, the only site in Canada right now activity developing shale We have 40 -- four 48-inch pipelines being gas. proposed to leave this territory to go to the coast for LNG. We are told by the province of British Columbia that the creation of energy through gas is not acceptable. But we are shipping all of our gas or proposing to ship all of our gas from northeastern BC, the Montey shale gas to other countries so that they can burn it.

When BC set up the *Clean Energy Act*, they wrote in there, no allowance for natural gas. The Province soon amended that, the *Clean Energy Act* because the Canadian Association of Petroleum

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Producers went in there and enlightened them on the fact that they would cut their industry off if they were not allowed to burn gas. So BC amended the Clean Energy Act to include natural gas for the production of self-powering for these facilities.

Yet, we're being told that is unacceptable for us to do this. Across the border, they are building two brand new gas fire generation stations, the Shepherd plant and the one in Edmonton by Enmax at a fraction of a footprint, at a fraction of the cost of what Site C is being proposed. At the -- and scalable, 100 percent scalable. We have approached BC and have told BC that this is something that we would be interested in sitting down and discussing with them on an approach, as an alternative to Site C only to be told by the Minister sitting across the table from us that they have been given their marching orders that Site C been built. This is not a consultation process, this is an informative session. None of our concerns are being addressed.

You've heard earlier that agricultural land in the river basin, the valley is the only class 1 and class 2 agricultural lands north of Quesnel. I would ask -- well, I hope somebody asks, if they

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flood that what are we going to do? There is no other class 1 and class 2 agricultural lands here. There's enough land in that valley to feed everybody up here. The reason why it's not being done is because BC has placed a flood reserve on there.

Along with the class 1 and class 2 agricultural lands there is also calving zones for the moose, the deer and the elk. It's a wildlife habitat corridor. It's the only piece of river that we have left after they destroyed the up stream from the W.A.C. Bennett dam and the Peace Canyon dam. The Peace River, the Philly River and the Parcelet River were the main corridors which were the highways for our communities to interact with each other.

We have family that live in Quinnatcha and Saykay. BC Hydro makes a deal with them and settles with them on the impacts that they have with the W.A.C. Bennett and the reservoir, which are all inside the Treaty 8 territory, but yet they fail to sit down and talk to us about those impacts. And they consider imposing new impacts on us with the flooding of Site C.

So we just -- how much are we supposed to

1 give? We don't know how much has already been 2 Nobody can tell us how much more the land taken. 3 can sustain on it. They just keep taking it. My argument is, the amount of development 4 5 that is coming from the shale gas place and the LNG 6 demand that the province is banking everything on, 7 Site C is too much. Losing all that land in the 8 valley is too much. And they have to look at these 9 alternate. 10 Thank you. 11 CHIEF LILLY: Thank you, chief Chief Willson. 12 Good afternoon, My name is Chief Russell 13 Lilly of the Halfway River First Nations. 14 here today to tell you we do not want this project. 15 The proposed Site C project will flood 16 14 kilometres of the Halfway River and flood an 17 area very important to my community. The mouth of 18 the Halfway River where it meets the Peace River, 19 our members have felt the impacts of the past two 20 dams, and we do not want anymore. The footprint of 21 this project is too large and the impact's too 22 The Peace River Valley is a very important 23 place and needs to stay the way it is and be free 24 from this project. 2.5 My community is surrounded by industrial

1		activity, and we are very concerned about the
2		health of the land and the animals. Site C is yet
3		another large project that would cause more harm.
4		My community members always ask, why isn't BC Hydro
5		looking at other options instead of another large
6		dam? Why are we here today talking about a project
7		that has been stopped twice before? The land, the
8		water together as one is like our blood. We must
9		protect it for future generations to come. I want
10		to thank the Panel for taking the time in your
11		lives to participate in this process. I'll ask
12		that you listen carefully to our elders, our youth
13		throughout your time here in Treaty 8 territory.
14		Thank you.
15	CHIEF	TSAKOZA: Good afternoon. My name
16		is Chief Lynette Tsakoza. I am from the Prophet
17		River First Nations. I am here today in the unity
18		with my fellow chiefs to tell you that Prophet
19		River First Nation is opposed to the Site C dam.
20		Like Chief Lilly had said that we felt the
21		past impacts from two of the dams, and we do not
22		understand why another project of this size is
23		needed. The Halfway First Nation members is our
24		family and our relatives as we shared a current and
25		historic use of the Peace River Valley, and we

1 share our concerns about the amount of the activity 2 already occurring on our land each day with the 3 impacts of the Site C project. It is time to take a look at the solutions of 4 5 our energies that needed to offer a balance of our 6 value. Chief Willson says what about our 7 alternative? Prophet River First Nations would 8 prefer it if you had more time to come to our 9 community to have a session in our community that we -- you can understand where we all come from, 10 11 but we are on all tight schedules, as we all are. 12 I would like to remind the Joint Review Panel 13 to the Peace River Valley is important, not only to our communities, but also to our First Nations 14 15 peoples all over our Treaty 8 that call Fort 16 St. John and the surrounding area, our home. 17 Our Treaty rights exist throughout the 18 Treaty 8 territories, regardless where each of our 19 members are living. 20 We can exercise our rights anywhere, and this 21 is an important point because all our members all 22 over the Treaty 8 territory practice our rights in 23 the Peace River Valley. 24 Thank you. 2.5 CHIEF DAVIS: Hello, my name's Chief Norman

1 Davis, Doig River First Nations, formerly City of 2 Fort St. John Beaver Band, so it's just outside 3 town here. I'm here to tell you we are all united 4 in our opposition to this project. The Peace River 5 Valley is a unique place and important to so many 6 people. As you will see through these hearings, 7 it's not a remote valley. Out of sight and out of This valley is home to ranchers and 8 the mind. 9 farmers, used by our members to practice their rights. Home to important gathering places such as 10 11 Bear Flats and the mouth of the Halfway River, and 12 it's very important to a number of wildlife 13 species. My community is very concerned over the numbers of moose in this area. The numbers are way 14 15 down, and we're concerned that BC Hydro is 16 minimizing the importance of the Peace River Valley 17 there in the harsh cold winters. 18 The valley offers protections to a number of

The valley offers protections to a number of animals there in the hard winters, and this is an important point to remember.

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Our former chief was (Aboriginal word spoken)
on the Valley here, Chief Attachie. And we have a
-- Dane Zaa people had a real history on this
valley here. (Aboriginal word spoken), even before
the Treaty was signed, were here. And there's

1	other ways to create energy.
2	That's it. Thank you.
3	TRIBAL CHIEF LIZ LOGAN: Mr. Chair, if you would
4	indulge me and let me finish what I was saying in
5	the beginning and then we'll be done.
6	Site C, its costs and impacts carry
7	significant risk not only for Treaty 8 First
8	Nations but for all British Columbians as a whole.
9	BC Hydro's mandate of maximizing the hydro electric
10	potential of the Peace River cannot be reconciled
11	with our Treaty rights. This mandate maximizes
12	costs, putting all British Columbians at risk.
13	BC Hydro has said that building Site C is in the
14	public interest. That's an interesting statement
15	considering that the BCUC, the BC Utilities
16	Commission, who helps determine such a conclusion
17	has been completely removed from the
18	decision-making process.
19	We hope that in your wisdom, Panel, that at
20	the end of these hearings you will see that this
21	project is in fact not in the interest of all
22	British Columbians, and it having been rejected
23	twice before by the BC Utilities Commission, that
24	it needs to disappear for good, and we look forward
25	to talking to you further in our community, so

25

1		thank you very much.	
2	MR.	CHAIRMAN:	Thank you very much. Chief
3		Logan and the Treaty	8 chiefs.
4		I would like to	ask if any people here have
5		questions they would	like to direct to the chiefs.
6		Gentleman in th	e back.
7		May I perhaps r	emind you that these are
8		supposed to be questi	ons rather than speeches.
9	MR.	APSASSIN:	Aren't we in Canada here? We
10		have a freedom of spe	ech.
11	MR.	CHAIRMAN:	Up to a point.
12	MR.	APSASSIN:	Am I right or wrong? Or am I
13		out of place? Oh, I	understand.
14	MR.	CHAIRMAN:	No, but I would like to use
15		let me put it this	way: If one registered as a
16		participate to speak,	one can speak at some length.
17		What I'd like to do i	s to use this period to ask
18		questions of clarific	ation or fact, whatever, to
19		the people who are ma	king the presentations, but
20		that's	
21	MR.	APSASSIN:	I appreciate that, Chairman.
22		I appreciate that, bu	t at the same time, we don't
23		get much chances in t	hese kinds of things from
24		we come from the bush	, so I don't live too far from

here, about 45 miles into bush over here, and our

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community, Blueberry Reserve it's called. I don't know whether this is a question, but I'm going to try to make it a question so that BC Hydro probably knows about this already anyways.

The important point -- we've being acting within a process created by the proponents and are bound within the legislation of BC Environmental Assessment Act or the Canadian Environmental Act created by BC and Canada with their perspectives and the motivations, and they both hold the ability to amend -- allow for less stringent guidelines on environmental impacts. This is the pathway that has been imposed on First Nations for responding to the environmental impact.

The Aboriginal perspective on the environmental impacts in relation to the governance of Aboriginal rights such as harvesting rights must be safeguarded to ensure continuance of practice of our traditional ways for ourselves and our future generations and generations unborn.

We will be met under both of these acts.

Aboriginal perspectively are markedly different
when it comes to the BC Canadian environmental
standards currently being utilized. The Aboriginal
perspective must be adequately addressed, and it is

1	the nation our nations and we determine the
2	advocacy of this kind of a consultation process.
3	Thank you.
4	MR. CHAIRMAN: Thank you for that comment.
5	I perhaps should say that our terms of reference
6	specifically enjoin us to listen hard and take
7	account of traditional ecological and Aboriginal
8	knowledge on these matters, and we will try and do
9	that.
10	Before I undertook this task, an Algonquin
11	friend said that her mother said God gave us two
12	ears and one mouth and for a reason, so we'll try
13	and live up to that.
14	Are there further comments for Treaty 8
15	chiefs?
16	In that case, I would suggest that we take 15
17	minutes, get a cup of coffee and reconvene at 3:25.
18	Thank you.
19	
20	(Brief adjournment)
21	
22	MR. CHAIRMAN: Ladies and gentlemen, can we
23	reconvene, please. Bring your coffee. Our next
24	speaker is Mr. Kenneth Forest.
25	

1 Presentation by Kenneth Forest: 2 MR. FOREST: Sorry for the delay. I can't 3 see. Thank you to the Panel for the opportunity to 4 5 present here today. I'm going to be talking on 6 Peace Valley, ensuring our future for food 7 security, and in particular I'm going to centre some of that discussion on climate change, and 8 9 because of that, because climate effects the entire planet, I'm going to be talking around climate 10 11 change on a global basis even though I want to have 12 an idea that it's going to impact us here. 13 This presentation is about the effects on our food supply here through the years 2030, 2050 and 14 15 2100. Those are long times from now; I won't be 16 around to see them. Many people in this room 17 won't, but our children and our grandchildren and 18 their children will, and they will be effected by 19 what happens here today. 20 I'm first focus on what our current food 21 capabilities are, and then constrain --22 MR. CHAIRMAN: Mr. Forest, can I --23 MR. FOREST: Sorry?

and there is maximum speed in which this can

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MR. CHAIRMAN:

You are being transcribed,

1 happen. 2 MR. FOREST: I'll go a little bit Sure. slower. 3 I timed this yesterday for I think 18 minutes, so I hope we're okay with that. 4 5 I'll first focus on what our current food 6 capabilities are and then constraints on importing 7 our food, ending with the loss of our soil, which is essential to our food production. The effects 8 9 of Site C will determine in a major way future 10 health and welfare of Peace area citizens. For me, I came up here in the '60s. I landed 11 here in 1967, saw the area. 12 The Peace River drew 13 me, and I came back with my wife. We hand-built a 14 log home with a chainsaw and raised a couple of 15 kids and pursued our careers here, and we have 16 enjoyed every second. We're retired now, and not 17 moving don't to the Lower Mainland or Arizona or 18 someone else. We really enjoy the country, and 19 that's partly why I'm here. 20 My background includes being a teacher, a 21 school district principal, a faculty associate for 22 Simon Fraser University, and for the University of 23 Victoria. References for this are found in my 24 written print out, and I can't give them to you 2.5 today; they're going to be too cumbersome to

1	present.
2	The value of our food production over the
3	long term will be more important than adding
4	another 8 percent hydro electric power to the BC
5	grid from Site C.
6	Where will our children's food come from?
7	Food is critically important. Three days without
8	it, it changes the way people think, the way they
9	act, the way they live. Food needs to be available
10	continuous in our future. It won't appear
11	miraculously in supermarkets. In 2050 or 2100, we
12	may not be able to access the food that we take for
13	granted today.
14	I feel that our food security will be
15	impacted here by three things: climate change, our
16	ability to transport in our food, and the
17	understanding of science.
18	Climate change, expensive transport and
19	scientific literacy are really important, and they
20	are going to challenge our ability to stay here.
21	When I put this slide up first, I was
22	thinking in terms of BC Hydro and the small number
23	of people around here that are trying to work
24	against some of what's going on. However, I
25	thought I would stay with climate change, expensive

transport and scientific literacy.

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Evidence-based science and sound critical thinking skills are essential for maintaining our long-term food in this area.

When recently asked about climate change,
BC's agriculture minister appears to have responded
that climate change is an opinion and that everyone
has an opinion, and he said he would just leave it
at that. Opinion like that is not good for making
decisions. The science of climate and climate
change theory develops from peer-reviewed research,
empirical evidence and facts. It's the best
understanding that we have.

Which one of the above will be more important in 2030, in 2050 and 2100? Which one will our children appreciate and thank us for? Which market garden food production in the Peace will be a staple for life? Will it be a staple for life or a luxury? Something that we can simply and always transport from somewhere else.

Here's a picture of our food capabilities in BC: Arable land, 5 percent. The amount that we import 56 percent. The population in British Columbia rising another million in the next decade or two, and that 56 percent will turn into 60 or 70

1	percent imported food to this province.
2	We have very limited ability to produce our
3	food in the province. If we expect to import food
4	into BC and the Peace, we will have to be very
5	confident in our supply from foreign markets.
6	A more principled strategy would be to
7	maximize and sustain our ability to grow our own
8	food here.
9	According to comments in the BC Agricultural
10	Climate Change Action Plan published in 2013,
11	quote:
12	
13	"BC must seek to expand its
14	capacity for food production,
15	rebuild lost production and
16	processing infrastructure and
17	develop expertise to serve local
18	markets. The Peace Valley is
19	potentially able to supply market
20	garden produce and fruit because of
21	its east-west orientation,
22	south-facing aspect, top-grade
23	soil, access to water, long light
24	and tempered growing."

1 Building Site C to create jobs is a red 2 herring. Jobs are about money for the select few 3 who come here for a few weeks or months or years to make their personal nest egg and leave our 4 5 community. It is our farmers and ranchers who will 6 pay. After seven years of dam construction, we 7 will be left with 25 permanent jobs, which will 8 have displaced thousands of agricultural jobs, 9 potentially over the next ten decades and even beyond. When I listen to BC Hydro today, most of 10 11 the mitigation they talked about centered on the 12 left-hand picture. 13 2030, electricity or food? Proponents of 14 Site C dam are looking for personal or corporate 15 monetary benefits. This dam is really about making 16 money. We all need market garden food. They are 17 only grown in our soil. With loss of topsoil, our 18 market gardens are gone. So we have to import our 19 food. There's a high probability that we cannot do 20 that in the future. 21 Would you bet your farm on having the supermarket loaded with food all the time? 22 23 After Hurricane Haiyan, there was no food to 24 eat, and yet people had plenty of money. What if

food could not be imported because nations were

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1 keeping their food and refusing to sell it? 2 BC Hydro has investigated the broader climate elsewhere -- or has BC Hydro investigated the 3 broader climate elsewhere that will effect our food 4 5 here in the Peace River country? According to a 6 number of studies, 97 percent of climate scientists 7 from the world's academy of science agree that climate change is anthropogenic, manmade, is now 8 9 here and is accelerating, and it will affect our ability to produce our own food. 10 11 The amount of carbon we put into the 12 atmosphere has a direct bearing on terrestrial, 13 oceanic and atmospheric heat absorption and retention, which directs long-term climate. 14 In the 15 past 250 years, humanity has emitted half a trillion tons of carbon. Carbon dioxide levels in 16 17 fact have risen by 40 percent. The world has used 18 half of its carbon budget, and will have used all 19 of it by 2050 if it doesn't slow down. That will 20 leave us with a two-plus degree rise in 21 temperature. 22 Our North American read baskets need stable

temperatures and abundant water to grow food.

Around 20 percent of the snow cover in North

America's greatest mountain ranges have been lost

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1	because of warmer springs in the last three
2	decades. The rate of decline in June snow cover
3	alone in the northern hemisphere: 11 percent. This
4	century, the earth has an unbroken hot streak of 29
5	consecutive years above the 20th century average.
6	The last time the globe had a cooler than
7	average temperature was February of 1985.
8	THE CHAIRMAN: Can you slow down, please,
9	Mr. Forest?
10	MR. FOREST: Sorry.
11	The last time the globe had a cooler average
12	temperature was February 1985. Most of the heat is
13	going into the oceans right now. The heat on the
14	terrestrial part of the planet and in our
15	atmosphere has actually slowed down in terms of its
16	acceleration rate. Soon possibly the next El Nino
17	which has stored oceanic heat can be released
18	causing large humid air masses to produce over
19	parts of the Pacific. That would result in some
20	places with extreme drought, and other places with
21	extreme flooding. In either case, it inhibits our
22	food production as I'm going to show you for this
23	local area coming up.
24	A recent study has that shown that by 2050 of
25	147 regions on earth, more than half of those will

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have shifted to a hotter temperature. No return to normal. By 2070, the coldest area of the planet will be hotter than the hottest year in its past.

All weather events are affected by climate because of the environment in which they occur, which is now warmer and moister. For every 1 degree in increase in temperature, there's a 7-degree increase in atmospheric humidity, and this is what the earth is expected to look like in 2100 from now.

A temperature for the midwest plains of the United States where we get a lot of our food could cut down on wheat production particularly in Kansas and extension to the greater plains by 20 percent. Even under optimistic scenarios, the region is probably headed for three times that amount of warming.

According to Oxfam 2013 barring a drought in North America, corn prices will spike by 500 percent by 2030. Overall food prices may jump by as much as 180 percent. What happens if we live in the Peace River country and we're paying for it?

A July 2013 Simon Fraser University report, climate change adaptation and Canada's crops and food supply stated:

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2	"There is unprecedented,
3	unpredictable and damaging extreme
4	events ahead.
5	In North America and in
6	Canada, drought, especially over
7	extended periods during the growing
8	season and in some cases for years
9	at a time can lead to damaged craps
10	and businesses."
11	
12	This photo shows what happened this year in
13	the year 2013 to a fish population in one of the
14	tributaries of the Amazon that experienced only a
15	two-degree rise in temperature. What does this
16	portend for BC salmon once our sources of food
17	start to disappear? Having market garden food in
18	the Peace in 2050 and 2100 would certainly be
19	prudent.
20	The biggest impact on our food production is
21	drought. It's inevitably if the planet's current
22	reservoir of carbon continues to burn, and we're on
23	track to do exactly that. The droughts in Russia
24	in 2010 ended in a collapsed grain export
25	Oh, a little slower? Okay.

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The droughts in Russia in 2010 ended in a collapsed grain export. They stopped shipping grain. Russia stopping shipping one of their major agricultural products to the rest of the world because they didn't have it to ship. Can that happen in North America? Absolutely.

The 2011 Texas drought saw half of their cattle lost. The 2012 Midwest drought last year saw grain export and grain production and corn production halved. If producing states run low or they run out, they are not going to ship their food to British Columbia.

The second worst impact on food production is flooding. This is an ARkStorm. This is a picture of a small ARkStorm that hit the coast of North America last year. It hit Seattle, and you can see the upper blue corner there's a small line, and that shows the line of North America, and the ARkStorm comes off the Pacific.

An ARkStorm results when huge amounts of water vapour come into a long stream and hit North America. In nobody's living memory today an ARkStorm hit the central valley of California 1861. It killed 1,000 people, 80,000 cattle. It was 40 kilometres across and 700 miles long, and it

1 appeared in the space of five weeks.

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It's more catastrophic than 9 magnitude earthquakes. Nobody alive today has seen one. There are records showing another one hit three times that size in the central valley in the 1600s. These are now on track to become more commonplace. We can expect to see one of these into North America in the next 50 years. Our atmospheric humidity is climbing 7 percent for every one degree in temperature. We can expect to see them, and they are going to have an impact on our food. The central valley of California produces 40 percent of the market garden produce for North American, and that market garden produce will not be coming here if we have an ARkStorm.

A question I would ask Hydro at one time later on would be have you ever talked about ARkStorms and what they would do to a dam. 15 times the volume of the Mississippi in a few weeks.

In our future there will not be just one drought or one ARkStorm and then nothing, because our oceans and atmosphere are continuously being loaded with energy, impacts our the food production will be more severe, more frequent and more concurrent.

1 Dam it; it's gone forever. 2 The Peace Valley contains thousands of acres 3 of class 1 and 2 land, nearly 20 percent of BC's best topsoil. With Site C, virtually 99 percent of 4 5 the best soil in the Peace Valley will be 6 permanently flooded, and it never be replaced. 7 Neither can the food that it would be produced. In the world, 25 percent of the amount of 8 9 world agricultural land is highly degrading. One third is the amount of the world's crop land losing 10 11 topsoil faster than new soil a forming. 600 years 12 is the time it takes to produce two centimetres of 13 new soil. Money simply cannot buy or create new soil. Neither can it be manufactured, and neither 14 15 can it be mitigated. 16 To mitigate, is to do something rather than 17 nothing, to create less damage even if little 18 change results. It does not mean to correct or 19 eliminate all the damage, and I see the word 20 "mitigate" every time I turn around. 21 Market garden soil 2050. In 2050 and 2100, 22 our soil in this valley will be more important and 23 more valuable than gold. North American food 24 travels 2,4000 kilometres from farm to plate. 2.5 Peace food travels 4,000 kilometres, if you go to

1 Safeways. I ate some grapes yesterday and a 2 They didn't come from here. cantaloupe. 3 didn't come from British Columbia. Thev didn't They came from Mexico and South 4 come from Arizona. 5 America, and the oranges that I had came from South 6 Africa. Our food transport will go up. Why? 7 In 1940 to 1980, a single barrel of Texas crude could be used to extract 16 more barrels for 8 9 Today one barrel of oil is used to other use. 10 produce 2.5 barrels for other use. Oil is becoming 11 expensive, and it's going to get more expensive, 12 and our transport costs will become more expensive. 13 Why little local food produced in the Peace area valley? Think the flood reserve. 14 Think that 15 there has been a reserve on this valley on the 16 agricultural land for years. 9 million people will 17 want to eat in 2050. 18 Power for 450,000 homes, who loses? 19 desperately need power to keep our lights on, does 20 it have to come from our fields, our families and 21 This is a farm family from the Peace our farmers? 22 River area, and the picture was taken some years 23 ago. 24 Here's a picture of the prickly pear cactus 2.5 and a map that shows where it grows. You can see

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the Okanagan has a lot of cactus, two spots on

Vancouver Island, and then nothing in the rest of
the province until we get to be here. This is
partly why this valley is so precious.

Market gardens and orchards: This valley can grow tomatoes, cabbage, broccoli, apples, cherries, cantaloupe, carrots and peppers. We shouldn't be putting hay in it, and we can't grow those on the top benches.

So I'm almost finished.

Flooding our Peace Valley is a moral and ethical decision. No one cheered on the bulldoze drivers in the film Avatar. Who here will volunteer to drive dozers over our farms and ranches while the families stand on the banks of the Peace watching? Who will cheer them on? Who will decide? How many more extreme weather events will it take? How much does our food supply have to be in peril to stop putting reservoirs on our very most precious resource before we were all damned? We all enjoy the benefits of electricity. We should not go without electricity, but we should apply stewardship, sustainability and precautionary principles in deciding how and where to produce it.

Our future food supply here is more important

1		than generating Site C electricity. Global climate
2		will determine what or whether we eat. We need to
3		be proactive here now on these decisions, soil is
4		our paramount product for producing all soil. It
5		cannot be mitigated or bought. The Peace Valley is
6		unique in its local climate, high quality topsoil
7		and location. Without a flood reserve or a
8		reservoir, the valley could supply the northern
9		half of BC with long-term food for hundreds of
10		years.
11		If we as BC citizens are to prosper or even
12		survive over the next 100 years, growing our food
13		will not be one of many options; it will be our
14		only option.
15		And with that I would like to thank the
16		Panel, and I would like to thank the opportunity to
17		be able to present, and my apologies for speaking
18		quickly. It comes from practice.
19	MR. (CHAIRMAN: Thank you very much,
20		Mr. Dalton. Are there any questions that anybody
21		would like to raise with Mr. Dalton?
22		I have one. The flood reserve in the area
23		between Site C and site E was removed some years
24		ago, was it not?
25	MR. I	FOREST: I believe it was, yes.

1	MR.	CHAIRMAN: Has there been any
2		development of agricultural market gardening in
3		that area since the removal of the flood reserve?
4	MR.	BARTON: Not that I'm aware of. I
5		mean, John Curtis has had gardens below where
6		Site C would be, and that would be in the area that
7		your talking about. He's in his 80s now, and he's
8		still continuing on that kind of a venture, but I
9		don't know how long that will last. A lot of the
10		and that's a good question. I appreciate that
11		question, because a question comes as, well, why
12		isn't it that there right now? Why don't we use it
13		right now? And my answer to that would be because
14		we can go to the supermarket at Safeway that's five
15		blocks from here and pick it up off the store. Why
16		would we? The presentation that I'm showing here
17		is not now. The presentation that I'm showing here
18		is for 2050 and 2100 when we're not around.
19	MR.	CHAIRMAN: Are there further questions
20		for Mr. Dalton.
21	MR.	FOREST: Mr. Forest.
22	MR.	CHAIRMAN: Mr. Forest, excuse me. I've
23		got your middle name. Mr. Forest.
24		Are there further questions?
25		In that case, thank you, sir.

1	MR.	. FOREST: Okay. Am I allowed	d to ask a
2		question? Or can I do it somewhere else?	?
3	MR.	. CHAIRMAN: You should do it so	omewhere
4		else, but what's your question?	
5	MR.	. FOREST: Well, in my presen	ntation I
6		was talking about ARkStorms. An ARkStorm	n is an
7		atmospheric river storm, and I would expe	ect we're
8		going to see them, and my question through	gh you
9		would be has BC Hydro taken a look at AR	«Storms,
10		the effects of the general incapacity on	our food
11		supply in the future, and in particular $\it P$	ARkStorms
12		of what would happen to dams here.	
13	MR.	. CHAIRMAN: There is a session	on air
14		resources and another one on climatology	or
15		greenhouse gasses coming up. I'm just to	rying to
16		find out when it is.	
17		I guess we don't have it in front of	of us.
18		Is it tomorrow afternoon?	
19	MR.	. MURPHY: The atmospheric one	Э.
20	MR.	. CHAIRMAN: Yes, so there is a	topical
21		session on atmospheric resources tomorrow	√
22		afternoon. If anybody at Hydro can offer	an answer
23		to that off the cuff, fine. If not, we'l	ll pick it
24		up tomorrow.	

25 MR. STRANG:

Mr. Chair, the effects of

1		climate change were lo	poked at in two periods in our
2		EIS, the 2050s and 208	80s, and the effect on
3		flooding in a maximum	flooding was taken into
4		account in those two p	periods in the section 37,
5		effects to the environ	nment on the project.
6	MR.	CHAIRMAN:	Including the possible impact
7		of very large storm e	vents; is that correct?
8	MR.	STRANG:	The ARkStorm in particular
9		was not taken in acco	unt, but the effects of
10		climate change in gene	eral and the increase in
11		precipitation was take	en into account.
12	MR.	CHAIRMAN:	Okay. Thanks for that.
13		We'll pick up that aga	ain tomorrow afternoon.
14		Thank you.	
15	MR.	FOREST:	Thank you very much.
16	MR.	CHAIRMAN:	I'm sorry. Did you have a
17		question that you wan	ted to ask Mr. Forest?
18	MS.	CULLING:	Or to relevant to this
19		presentation.	
20	MR.	CHAIRMAN:	Are you asking a question of
21		Mr. Forest?	
22	MS.	CULLING:	To his presentation and to
23		yeah.	
24	MR.	CHAIRMAN:	Carry on then.
0.5	240	0111 1 1110	2

MS. CULLING:

So to follow up on your

1 question, Mr. Chairman, about market gardens 2 further downstream, so now my question is addressed 3 to the BC Hydro Panel. Could you speak to the availability of the topography and available of 4 5 benches suitable for market gardens downstream of 6 Taylor as opposed to the available within the 7 proposed flood zone? MS. JACKSON: 8 Thank you. 9 I will note that there are two days of topic sessions on agriculture where we will have our 10 11 agricultural specialists present for more details, but in our EIS section 20 we do have some 12 13 information on the classification of land within the entire valley, and as well with the context of 14 15 what would be taken up be the Site C project. 16 There are many numbers in that, but table 20.17 in 17 particular provides some summary information. 18 The entire Peace River Valley is identified 19 as having approximately 20,000 hectares of class 20 one to five lands all within the valley itself. The project would remove about 3,800 hectares of 21 22 that total area, so that's referencing lands that 23 would be remaining both above the flooded area of 24 the project on the benches as well as the downstream land within British Columbia. 2.5

1	MR. C	CHAIRMAN: Thank you for that. Are	
2		there further questions that anyone would like to	
3		raise of Mr. Forest?	
4		In that case, let us proceed.	
5		Dr. Faisal Moola of the David Suzuki	
6		Foundation.	
7			
8	Prese	entation by Dr. Faisal Moola, David Suzuki Foundation	า
9	DR. F	FAISAL MOOLA: Thank you, Mr. Chair, for	
10		the opportunity to speak to you today. I would	
11		also like to	
12	MR. C	CHAIRMAN: Can you let a little close to	0
13		your mic? Thank you.	
14	DR. F	FAISAL MOOLA: Thank you, Mr. Chair, for	
15		the opportunity to speak to you today. I'd also	
16		like to thank and acknowledge the traditional	
17		territories of the Dane Zaa people where we are	
18		gathered here today.	
19		My name is Faisal Moola. I'm the director	
20		general for Ontario and Northern Canada with the	
21		David Suzuki Foundation. I'm also an adjunct	
22		professor in the faculty of forestry at the	
23		University of Toronto, and an adjunct professor at	
24		the faculty of environmental studies at York	
25		University.	

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My comments today are on behalf of the David Suzuki Foundation. The David Suzuki Foundation works with Canadians from all walks of life including government and business to conserve our environment and find solutions that will create a sustainable Canada through science-based research, education and policy work.

Our mission is to protect the diversity of life and nature, our qualify of life now and into the future. Our vision is that within a generation, Canadians act on the understanding that we are all interconnected and interdependent with nature.

BC Hydro is proceeding with the environmental assessments of the proposed Site C hydro electric project, suggesting it will be a clean and renewable source of energy with significant economic benefit. The David Suzuki Foundation has a number of concerns about the Site C project that I would like to discussion with you.

Firstly, the proposed Site C dam will be built within an area known as the Peace break to scientists. This is an area that has been recognized by conservation scientists as an irreplaceable pinch point within the Yellowstone to

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Yukon corridor in western North America. It is a continental scale conservation priority for the protection of core wildlife habitat and animal movement corridors for large migratory mammals such as wolves, grizzlies and endangered populations of woodland caribou. And there is considerable concern that because it is located at the narrowest point of the Yellowstone to Yukon corridor, the cumulative impacts of human land use in the Peace region such as earlier and proposed new hydro electric developments like Site C, as well as other industrial activities, may sever ecological connectivity for some of these wide ranging wildlife species such as grizzly bears.

Secondly, the Site C valley and surrounding area is also the traditional home of the Dane Zaa First Nations and contains prime crop and range lands that have sustained working farm families for generations. We heard about that this afternoon.

If built, the Site C dam and reservoir and associated infrastructure would impact over 100 kilometres of the Peace River Valley bottom lands and would flood some 3400 hectares of prime farmland. This would be the biggest loss of farmland from BC's agricultural land reserve in its

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history. But what I'd like to stress is that the well being of these local communities is intimately tied to the health of the river and its surrounding ecosystems. These natural and managed ecosystems such as prime farmland are critical elements of what scientists refer to as natural capital.

Natural capital is a technical term to describe natural and managed ecosystems, fields, farms, forests and other ecosystems that provide important ecological benefits to local communities such as flood control, pollination services, hunting and fish opportunities, nutrient cycling and other so-called ecosystem services.

The United Nations Environmental Program, the World Bank and other agencies have urged the policy makers to carefully manage our natural capital resources given the fact that some two thirds of critical ecosystem services around the planet including here in Canada are already degraded or being used unsustainably.

The David Suzuki Foundation in my lab at the University of Toronto is completing a natural capital valuation study of the Peace River Valley and the surrounding regions which will be submitted to the Panel in the coming weeks. However, I would

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like to note that earlier studies completed in similar boreal and sub boreal ecosystems in Canada have found that Aboriginal and non-Aboriginal communities are literally sitting on a Fort Knox of ecological.

For example, ecological economist Martin

Elsky at the University of Alberta conservatively

that Canada's boreal forest provides a staggering

570 billion dollars a year in ecological services,

an average of about \$3,400 per hectare in benefits

such as climate regulations, flood protection,

water regulation, waste treatment, and pollination.

Ecosystem types with the highest values include wet lands, bogs and repairing ecosystems such as we see in the Peace Valley, largely due to the enormous amount of carbon stored in vegetation peat and soil. Most notably, boreal and sub boreal regions like the Peace Valley have been estimated to contribute some 14 times more societal economic value in these ecosystem services than the GDP generated by natural capital extraction industries such as mineral, oil and gas, and forestry. Which in the case of the boreal forest, was estimated to equal about \$41.9 billion a year or an average of \$245 per hectares.

1		Finally I'd li	ke to draw attention to new
2		peer reviewed science	e that was commissioned and
3		published by the Dav	id Suzuki Foundation this week.
4		A copy of this repor	t has been filed with the
5		Panel, and I have cop	pies of a publicly accessible
6		executive summary wi	th me, which I'd be happy to
7		share with the Panel	and with any members of the
8		public.	
9	MR. C	CHAIRMAN:	Is the report available in
10		electronic form?	
11	DR. E	'AISAL MOOLA:	It is available in electronic
12		form as well.	
13	MR. C	CHAIRMAN:	And it is being put up on the
14		website?	
15	DR. F	'AISAL MOOLA:	It's on the David Suzuki
16		Foundation website r	ight now.
17	MR. C	'HAIRMAN:	I require it to be on the
18		website for this pro	ject, for this study.
19	DR. F	'AISAL MOOLA:	Okay.
20	MR. C	'HAIRMAN:	Can the Secretariat arrange
21		for that, please.	
22	DR. E	'AISAL MOOLA:	I'll do that right after I
23		speak. Thank you.	
24		This new resea	rch which will be published
25		this week, which was	peer reviewed reveals that the

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Peace Valley and surrounding watersheds have already been significantly impacted by human land use to date.

This region has experienced widespread changes due to a convergence of industrial activities on the same land base and now is dominated by growing patchwork of clear cuts, petroleum and natural gas sites and facilities, mineral developments, roads, transmission lines, pipelines, seismic lines as well as earlier hydro electric development. Forestry energy and mineral ten-year concessions to industry are widespread and are often multi-layered in the same geographic area.

As our report shows, much of the mature forests, rivers, wet lands and other elements of natural capital in the Peace region have already been severely impacted to date by the growing pace and scale of human land use within northeastern British Columbia.

Local First Nations, community groups in the Peace and environmental groups like the David Suzuki Foundation are concerned that further expansion and intensification of the industrial footprint in the region with Site C will cause

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irrevocable ecological harm as well as impact community wellbeing by degrading these critical ecosystem services such as the provision of local food, which we just heard about.

As a result of these concerns, the David
Suzuki Foundation commissioned Global Force Watch
Canada to conduct the first ever spatial analysis
of industrial land use pressures and industrial
land use changes in the Peace Valley and
surrounding water sheds over the last 40 years, a
time period from 1974 to 2010, and over a
56,000-square-kilometre area of northeastern BC,
which includes portions of five sub basins that
drain into the Peace system. The Beaton, the Upper
Peace Halfway, the Eastern Williston Lake, the
Upper Peace, Kiskatinaw, and the Pine Water Sheds.

While Hydro has commented on cumulative effects at a finer scale in their proposed project at the regional assessment scale, we believe that it is important to look at this bigger picture and recognize that the proposed Site C dam will be built in a region of Canada which is being exposed to unprecedented intensity of human land use.

In addition to climate change, cumulative effects of land use are the primary driver of the

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degradation and loss and natural capital and other areas of nature. Indeed according to a study that was published recently in the Academic Journal of Science, few places on our planet have been untouched by modern humans. From arctic tundra to prime evil rain forest to arid desert, our natural world have been fragmented by ever expanding towns and cities, criss-crossed with roads, transmission lines and pipelines, and impacted by pump jacks, flare stacks and other infrastructure used to drill, frack and strip mine fossil fuels from the ground.

The pace and scale of land use in the Peace region is massive. From the air, the Peace appears as a fractured landscape of clear cuts, seismic lines, petroleum and natural gas well sites and facilities, mineral developments, roads, transmission lines and fragmented fields. This is a Google image taken showing the Williston Reservoir and the associated land use around it.

If future developments proceed as proposed including the flooding of the Peace River for the Site C dam project, the result will be even greater cumulative changes in a region of Canada that is already under significant pressure and where little

protected habitat has been set aside for wildlife
and other ecological values.

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I'm just going to go now briefly to the major findings of our peer-reviewed study. I'd like you to focus on the yellow star that orients us to where the proposed project and reservoir would be built.

Overall our analysis of spacial impacts going back over 40 years has shown that 20 percent of the Peace region has been directly impacted by industrial activity to date. However, when buffered by 500 metres to establish an ecological footprint, a well known threshold in the peer-reviewed literature, an astonishing 70 percent of the Peace region has now be disturbed by human land use.

I'd like to stress that our analyses in our study are considered very conservative in relation to the actual amounts of land use pressures that are happening in this region. For example, our cumulative change calculations of the loss of natural capital to industrial land use do not include the impacts of seismic exploration as we do not have confidence in the available spacial data sets.

1 They are 16,267 oil and gas well sites, 8,517 2 petroleum and natural gas facilities in the region. Again the yellow star here will orient to where the 3 proposed Site C development would go ahead. 4 5 15 percent of these developments are within 6 500 metres of a significant-sized body of water. There have been over 2,000 water crossings by the 7 oil and gas industry and 477 points of water 8 9 withdrawal by the oil and gas industry. 10 There are over 45,000 kilometres of roads, 11 1,163 kilometres of transmission line, 28,587 12 kilometres of oil and gas pipelines. 13 quarters of these pipelines are currently in 14 operation. 15 There are 29,000 kilometres of pipeline. 16 fact, more than half of all the pipelines in 17 British Columbia are found in the Peace region 18 If you placed all the pipelines, roads and 19 seismic lines in this region end to end, they would 20 extend almost four-and-a-half times around the 21 circumference of the earth. 22 The pace and scale of industrial-like 23 development is leaving little intact habitat for 24 sensitive endangered species such as caribou to 2.5 feed, breed or roam. Indeed according to the

federal government's caribou science and species at risk act recovery strategy, all the remaining caribou herds in the Peace region are no longer self sustaining, and thought by my colleagues to be spiralling towards extinction. For example, three of ten caribou herd ranges that occur within the Peace region have been diminished by over 50 percent through a combination

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that occur within the Peace region have been diminished by over 50 percent through a combination of roads, mines, settlements, hydro electric developments and other forms of land use. This region also has among the lowest levels of protection for wildlife. Only 4.2 percent of the region is currently protected in parks and protected areas.

I'm just going to conclude with some comments about policy.

The pace and scale of land use in the Peace region, which I've described to you today and which are in our report, didn't happen by accident or because of a laissez-faire approach to resource and land management.

The industries that are operating in this area are operating legally and according to rules and regulations set by government. But legal experts believe a root cause of this problem is

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unbelievable intensity and scale of land use lies in the very laws about laws -- land resource and water management. Laws and policies in Canada and British Columbia that are hard wired to fail communities and the local environment.

The narrow focus of our laws enables industries and agencies like BC Hydro to operate in isolation from one another. Though the science tells us that we need to adopt a precautionary approach to avoid slipping past critical thresholds, such as keeping a certain amount of intact habitat to ensure that there is wildlife and hunting opportunities on the land base.

In BC, we have numerous individual laws that regulate the industries. Like the Forest and Range Practices Act, the Oil and Gas Activities Act, the Mines Act, alongside the regulated industries that these acts enable. But both BC and Canada lacks a legal framework to proactively and comprehensively manage cumulative impacts of multiple resource industries operating within the same area, and this includes large scale hydro, such as proposed for Site C.

In 2010, First Nations from across the north including the Treaty 8 First Nations traveled to

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Victoria to deliver a joint declaration to the BC

Government asking that the cumulative effects of industrial develop in the Peace region be looked at before Site C was ever considered.

This never was done. Our peer reviewed research confirm that the cumulative effects of development in the Peace region at the regional scale, both the Peace valley and the immediate watersheds that drain into it, where the Site C dam is being considered are significant. unprecedented in Canada, and that going ahead with this project will result in even greater cumulative changes in the region. I have to say as a scientists that my findings corroborate what we he heard today very emotionally by folks like Ken and Arlene Boon or the First Nations who are literally seeing their lands be fragmented by the pace and scale of industrial development And who fear greatly that this damage to the land be furthered if the Site C dam is allowed to go ahead. I'm also particularly concerned as a scientist that this project is being considered at a time when both BC and Canada clearly lack any policy direction for the management of cumulative effects. As this slide shows, the Peace region is heavily tenured

1	already with all the industrial tenures operating
2	here are up on this slide. Again, please orient
3	yourselves to the yellow star where the proposed
4	project would be built.
5	The Peace region is heavily tenured already
6	and has been identified by policy makers including
7	the Premier for further development such as
8	expanded shale and gas development to feed LNG
9	production. It is for this reason that the David
10	Suzuki Foundation believes that remaining
11	ecological and farmland resources in the Peace
12	River Valley must be protected and the Site C Hydro
13	project should be rejected.
14	Thank you.
15	MR. CHAIRMAN: Thank you, Dr. Moola. Please
16	refrain from demonstrations.
17	Are there questions for Dr. Moola?
18	Jocelyne, did you have one?
19	Jocelyne and then you.
20	MS. BEAUDET: Thank you, Mr. Chairman. We
21	received a copy, an electronic copy of this
22	document sent by T8TA in September, and I'd like to
23	find out from Mr. Hendriks if it's the same version
24	because and maybe, that's why BC wants to
25	BC Hydro's rebuttal is going to be sent on this

1	document, with respect to the submission of
2	Treaty 8 First Nations. And I'd like us to work on
3	the same version, all of us.
4	DR. MOOLA: Can I clarify.
5	MS. BEAUDET: Yes, please.
6	DR. MOOLA: I'm sorry, if I was
7	confusing.
8	The document was released. What I
9	released this week was the executive summary which
10	includes interviews with local community members
11	including Ken and Arlene Boon, the Treaty 8 First
12	Nations responding to the data that was presented
13	in the regional technical report. So there's a
14	technical report which has already been filed by
15	Treaty 8 Tribal Association as well as by the David
16	Suzuki Foundation in my written submissions.
17	In addition, I have a popular summary which
18	is much more easily understood, which has also been
19	submitted.
20	MS. BEAUDET: Mr. Hendriks, so what you
21	sent us was the atlas? Okay.
22	MR. HENDRIKS: Yes, Rick Hendriks with
23	Treaty 8 Tribal Association.
24	It would be worthwhile, Madam Beaudet,
25	perhaps to just confirm that I did get the right

1		version. Also I did notice that the Saulteau Firs
2		Nations as part of their submissions
3	MS.	BEAUDET: Yes.
4	MR.	HENDRIKS: also submitted a version
5		so I agree, it would be worthwhile to make sure
6		that the correct version that they're all the
7		same.
8	MS.	BEAUDET: That was my next question,
9		yes, because we did get also from the Saulteau
10		Nation, so I'd like all of us, including BC Hydro,
11		if we could work all on the same version.
12	MR.	CHAIRMAN: We have a new undertaking
13		number 14 that
14	MR.	HENDRIKS: Mr. Chairman, can I suggest
15		that perhaps a new I say a new version, but the
16		correct, most up-to-date version be posted, and
17		perhaps the others be taken down. I don't know it
18		that can done on the registry.
19	MS.	BEAUDET: We have three versions now.
20	MR.	CHAIRMAN: So long as the version that
21		we're all going to use is available on the website
22		very quickly and is available to all participants,
23		all right? And can I ask the two of you to
24		undertake to make sure that that happens?
25		Thank you.

1	MR.	HENDRIKS:	Will do.
2			
3		UNDERTAKING 14: Co	onfirm if the copy of
4		Dr. Moola's report	submitted by T8TA and Saulteau
5		First Nation are th	e same as his
6			
7	MR.	CHAIRMAN:	I believe Hydro had a
8		comment.	
9	MR.	HADLAND:	Mr. Chairman, I do have a
10		number of questions.	But I do want to touch on
11		this question of the	version. And I wondered if
12		Dr. Moola could confi	rm that the version attached
13		to his submission is	the most current and up to
14		date version.	
15	DR.	MOOLA:	Yeah. Yeah, there's one
16		version of the techni	cal document which is being
17		submitted by both mys	elf, Treaty 8 and Saulteau
18		First Nations. What	I'm also submitting is a
19		popular public summar	y. This is the only new
20		document. It present	s the exact same maps.
21	MR.	CHAIRMAN:	Okay. That's fine.
22	DR.	MOOLA:	But in an easier to
23	MR.	CHAIRMAN:	So the answer is yes.
24		Thank you.	
25	MR.	HADLAND:	And, Mr. Chairman, I think

1		Dr. Moola just confirmed the answer to my next
2		question, but I'll ask it anyway, the versions of
3		the report and I think the authors are Lee and
4		Hattiman; correct?
5		The summary that Dr. Moola is suggesting he
6		will submit has additional information; is that
7		correct?
8	DR. M	MOOLA: It has additional information
9		which are interviews with people who have lived
10		with and observed the changes that are present
11		the ecological change that are present in the
12		technical report.
13	MR. H	MADLAND: Mr. Chair, I believe I also
14		heard Dr. Moola refer to what be yet another
15		document. Yet another document, a natural capital
16		evaluation I think he referred to it. And I'd ask
17		him to confirm that that is indeed yet another
18		document.
19	DR. M	MOOLA: Yeah. There is a third study
20		which is an economic analysis of the non-market
21		benefits of natural capital which will be submitted
22		in January.
23	MR. C	THAIRMAN: I'm having some difficulty
24		with that. Any documents that are brought forward
25		have to be brought forward in time for

1	consideration by all other parties. I would very
2	much prefer and I have made this condition to
3	other people that any late documents come in by
4	Christmas Eve. Can you do that?
5	DR. MOOLA: I will try, it's my
6	commitment to peer review and due diligence, and
7	unfortunately some of the peer reviewers have been
8	late with their comments. I will try really hard.
9	MR. CHAIRMAN: Thank you.
10	MR. HADLAND: I have one question that
11	would touch on this concept of natural capital
12	evaluation. I would ask Dr. Moola whether the
13	types of natural capital that may exist are
14	reflected in the descriptions of land use natural
15	and otherwise in the Lee and Hattiman report?
16	DR. MOOLA: Yes, they are.
17	MR. HADLAND: Dr. Moola
18	Mr. Chair, I'm looking at the public hearing
19	registration form that Dr. Moola submitted. It's
20	CEAA document 1996. In it Dr. Moola refers to what
21	I believe is the Lee and Hattiman report which is
22	also attached to his submission. And Dr. Moola
23	describe it as new peer reviewed research.
24	And again, just to confirm that it is the Lee
25	and Hattiman report that he refer to in his

1		submission.	
2	DR.	MOOLA:	Yes.
3	MR.	HADLAND:	He's nodding. The
4		description "peer rev	riewed," I take it to mean the
5		review that's describ	ped in appendix C of that same
6		report; is that corre	ect?
7	DR.	MOOLA:	Yes.
8	MR.	HADLAND:	Okay. Dr. Moola concluded
9		with a discussion abo	out the absence of a legal
10		framework and that's	too reflected in his
11		submission form, Mr.	Chairman. And I just want to
12		confirm that as I	read it and heard it, it
13		raises two questions	or two parts: one, that such
14		a framework ought to	be prepared by government,
15		generally.	
16	DR.	MOOLA:	Yes.
17	MR.	HADLAND:	And that it hasn't been done
18		yet government.	
19	DR.	MOOLA:	It has not been done No.
20	MR.	CHAIRMAN:	I would say that that's an
21		interesting observati	on if true but not relevant to
22		our proceedings. Wel	l beyond our terms of
23		reference, thank you.	
24	MR.	HADLAND:	I would ask Dr. Moola turn

next to page 8 of the Lee and Hattiman report.

25

1		Mr. Chair and Dr. I	Moola, I do want to ask Dr. Moola
2		about some of the	content of te report. I know
3		he's not the author	r, and I trust that he's able to
4		answer some question	ons.
5	MR.	CHAIRMAN:	Since he's only here for this
6		afternoon, you'd be	etter ask now.
7	MR.	HADLAND:	I am.
8		Now, Dr. Moo.	la, at page 8 at the bottom
9		there's a descript	ion of the purposes of this
10		study.	
11	DR.	MOOLA:	Yeah.
12	MR.	HADLAND:	And as you mentioned in your
13		oral presentation,	the purpose the threefold
14		purpose is a quest:	ion of was to describe
15		spatially or spatia	ally describe depending on which
16		of the three you're	e reading. You're on page 8.
17		The third on	e reads in the report:
18			
19		"To spatiall	y describe the change
20		in natural c	apital over the last
21		decades as a	result of recent
22		industrial de	evelopment."
23			
24		And my quest	ion, Dr. Moola, is the change in
25		natural capital do	ne by making certain assumptions

1		about the impact of the	hat development?
2	DR. M	MOOLA:	I will not be able to
3		describe to you the f	ull methodology that we used.
4		It's the two scientis	ts that I hired have that
5		knowledge. What we d	id was we looked at historical
6		GIS and other types o	f remote sensing images of
7		what the Peace region	looked like in the early
8		1970s, identified the	stocks of natural capital
9		from those images, di	fferent types of farmland,
10		different types of fo	rests, different types of
11		other ecosystem. We	then compiled an inventory, a
12		spatial inventory of	land use that has happened
13		over the next 40 year	s to our most recent data set
14		which is 2010 and loo	ked at the change or loss or
15		degradation of those	natural capital stocks between
16		those two time period	s.
17	MR. H	ADLAND:	Mr. Chairman, there is at
18		page 68, there's some	discussion of this cumulative
19		change and a few word	s including a footnote that
20		might add some detail	to this, to the assumptions
21		underlying the charac	terization of change, and it
22		may help if I ask Dr.	Moola to turn there.
23	MR. C	HAIRMAN:	Could you repeat the page
24		number, please.	
25	MR. H	ADLAND:	68.

1	MR.	CHAIRMAN:	Thank you.
2	MR.	HADLAND:	Dr. Moola, the first
3		paragra	ph under the heading "Cumulative Changes"
4		states:	
5			
6		11	Cumulative changes were mapped and
7		â	nalyzed using a number of data
8		S	sets."
9			
10		P	and then a number of types of data are listed
11		in the	that sentence. Do you see that?
12	DR.	MOOLA:	Yes.
13	MR.	HADLAND:	And there's a footnote on the
14		word "c	changes."
15		P	and, Mr. Chair, if we go to the bottom of the
16		page, t	here's a definition of change. And if I
17		may, I'	ll reads it out:
18			
19		11	We find change as all those
20		i	ndustrial and infrastructure
21		â	activities on the land that may
22		Ċ	legrade the natural ecological
23		C	conditions."
24			
25		Z	and, Dr. Moola, is it your understanding that

1		the assumption about	the impact of development was
2		made by some consider	ration of the nature of the
3		development but not a	measure of the actual impact
4		on the ground?	
5	DR.	MOOLA:	Yes, that's true.
6	MR.	HADLAND:	And then it becomes clear in
7		the third paragraph o	on that page that that
8		assumption was then e	expanded spatially by adding
9		the 500 metres buffer	that you just described.
10	DR.	MOOLA:	Yeah. We presented the land
11		impacts two ways: cor	nservatively based on the
12		actual amount of natu	ral capital directly under
13		human land use and th	nen based on the amount of
14		natural capital that	is impacted within 500 metres
15		of land use. So the	use of a 500-metre buffer is a
16		well known published	threshold in the literature
17		about the ecological	impacts of land use that go
18		beyond the direct foo	otprint of development. For
19		example, impacts on t	the behaviour of wildlife.
20	MR.	HADLAND:	And that point is made in the
21		appendix to the repor	et in a discussion of mapping;
22		correct.	
23	DR.	MOOLA:	Yes.
24	MR.	HADLAND:	Okay. Thank you.
25		At page on t	the next page, Mr. Chairman,

1		under the heading of	what starts on the previous
2		page, summary of fin	dings. There's some near the
3		bottom two, the bull	ets, if I can call it that, the
4		thirst last one and	the second last one.
5	DR.	MOOLA:	Yes.
6	MR.	HADLAND:	And in those two bullets we
7		see the effect of bu	ffering; Is that correct?
8	DR.	MOOLA:	Yes.
9	MR.	HADLAND:	Okay. And some of them
10		the two examples the	re, are they the two extreme
11		examples that were f	ound in this report?
12	DR.	MOOLA:	Yes, based on the five
13		different watershed	units. It identifies one
14		watershed unit, the	beaten watershed unit, which
15		has the highest perc	entage of its area that has
16		been disturbed by hu	man land use.
17	MR.	HADLAND:	And was there any in that one
18		changed from the bea	ten I'm just trying to read
19		the two bullets at t	he same time, but I think what
20		it says is that the	unbuffered change is 22 and
21		half percent and the	buffered change 90 or
22		91 percent?	
23	DR.	MOOLA:	No.
24		Oh, yes, you'r	e right, yeah.
25	MR.	HADLAND:	I just wanted to make sure I

1		understood that.	
2	DR. M	OOLA:	Yeah. And that is a
3		consequence of linear	impacts. So it's a
4		reflection of the amo	unt of fragmentation that is
5		occurring within the	beaten watershed. Imagine a
6		spider web of roads,	of pipelines and other types
7		of linear disturbance	s, which if we buffer with a
8		buffer of 500 metres	is going to have a far larger
9		extrapolation of infl	uence over the land.
10	MR. H	ADLAND:	And Dr. Moola has anticipated
11		my next question whic	h is whether there was an
12		explanation or any at	tempt to analyze the relative
13		differences and what	they may be attributable to.
14		And I know that Dr. M	doola that there's a discussion
15		on page 88, beginning	on page 88 on the question of
16		change, verification.	
17		And, Mr. Chair,	I'd ask Dr. Moola to confirm
18		whether beyond that d	iscussion there's any other
19		discussion or any oth	er analysis of the
20		reliability, the sens	itively or the uncertainty of
21		the analysis in this	report beyond what is set out
22		there.	
23	DR. M	OOLA:	I'm sorry, I'm not a GIS
24		expert and can't answ	er that question.
25	MR. C	HAIRMAN:	I think it would be fair to

1	accept what's written as what they were	e saying.
2	MR. HADLAND: Fair enough, Mr.	Chairman,
3	and those are my questions.	
4	MR. CHAIRMAN: Thank you.	
5	Madam Beaudet.	
6	MS. BEAUDET: This presentation	n brings
7	forward the topic on cumulative effect	assessment.
8	I think before we go deep into it, we'l	ll wait for
9	your rebuttal on this document. But I	'd like to
10	bring a few points, and maybe you should	ld keep them
11	in mind when you do your response. The	e first one
12	is from the letter you sent December 3:	rd, 2013,
13	where you say that you're going to resp	pond to
14	several of the presentations that were	submitted.
15	And on page 6, you talk about this atla	as. And the
16	next paragraph, just before the fourth	section, you
17	say:	
18		
19	"In BC Hydro's submission and	
20	understanding of the two types of	f
21	cumulative effect assessment,	
22	regional and project specific, w	ill
23	assist the Panel to complete its	
24	mandate as each type has its own	
25	purpose objectives, approach and	

1	information requirements."
2	
3	Now, I've been involved with cumulative
4	effect assessments since 1993 which was even before
5	the guidelines with the Federal government was
6	written. And the spirit of that guideline and
7	whatever work we did before or after was always in
8	the context of a region, a watershed, a valley.
9	And this is the first time I see a project specific
10	cumulative effect assessment. And I'd like you to
11	explain that to me, how you saw it. If we look,
12	for instance, at the LAA part of it is in the flood
13	reserve zone. And the response to the IR 91 says
14	that only 30 percent of that area is not flooded.
15	So if 70 percent is flooded, how many
16	projects can you add to your project? I'd like
17	that to be answered.
18	
19	UNDERTAKING 15: Respond to Mme. Beaudet's four
20	questions regarding cumulative effects
21	
22	MS. BEAUDET: The second thing is you have
23	a list of projects and you always say there's no
24	cumulative effect assessment in the LAA. It's
25	evaluated in the IA only from a qualitative point

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of view because you say sometimes there are not projects like for heritage. So I'd like you to make the distinction on the list that you presented us, the projects that you assumed were in the LAA.

I don't think that is clearly defined. There's a figure where you indicate the projects in the IA in terms of forestry, oil and gas, et cetera. But I'd like to see clearly, if you're going to talk about cumulative effect assessment as a project specific, what's happening in the LAA.

Now, my last point or so is, there were several questions we asked in terms of number of hectors, percentage. What we were looking at is we were trying to see like the map we saw just now.

And if you look at Site C, it is an addition. But we were trying to have from you specific percentage or number of hectors or whatever, that will indicate compared to all this region, what is your impact?

I mean, it could be 2 percent. And even in the update you've given us after this -- from the questions we ask in this efficiency letter, we still can't use any of what you told us. You even say that you can't add the figure, you know, the data you've given us.

1 The last point is -- and maybe I'm wrong, and 2 that's why I'm asking you because I never make any 3 assumption unless I ask the proponent to explain to me clearly how he saw things because it's possible 4 5 we see things differently. 6 Usually in an environmental impact statement 7 the cumulative effect assessment will be done on a few topics. And I know you have a technical memo 8 9 on that clarifying why you didn't do on certain 10 topics and you did on some topics. I just want to 11 know if I'm wrong in thinking that the cumulative 12 effect assessment was done by different teams. 13 find that there's a different interpretation of the quidelines from the Federal Government. And I'd 14 15 like you to correct me to say yes or no. Depending 16 on what topic of obviously you're evaluating. 17 Yeah, thank you. 18 MR. CHAIRMAN: Hydro? 19 MS. YURKOVICH: Just to confirm, 20 Madam Beaudet, I think your request of us is to 21 make that clear in our submission back to you? 22 MS. BEAUDET: In the documents in the 23 response, yes, what has been presented to us. 24 MS. YURKOVICH: Thank you. 2.5 MS. BEAUDET: Thank you.

1	MS. YURKOVICH: We will do what we will
2	try to do a better job, thank you.
3	DR. MOOLA: Mr. Chair, will it be
4	possible for me to make a comment that was inspired
5	by Ms. Beaudet's comments?
6	THE CHAIRMAN: Sorry, could you speak into
7	the mic?
8	DR. MOOLA: Mr. Chair, would it be
9	possible for me to make a comment that was inspired
10	by Ms. Beaudet's comments. Okay. Thank you very
11	much.
12	One of the things I'd like to stress is how
13	conservative our and analysis is. I had mentioned
14	for example that there were certain forms of land
15	use that like, seismic that is not presented in
16	our atlas or the public friendly document because
17	we don't feel confident with the sources of data.
18	But another major element of our conservative
19	analysis is that we only focussed on the stocks of
20	natural capital, the amount of forest, the amount
21	of farmland, the amount of wetland and how those
22	stocks of natural capital have changed over a time
23	as a consequences of cumulative effects. You could
24	also look at the flows in terms of the ecosystem
25	services that come from the natural capital. And

1		I'll give you an example, I understand that Parks
2		Canada recently filed a document with you with some
3		concern that if the Site C dam was built, it might
4		influence downstream environmental conditions.
5		That if it is true would be a consequence of the
6		change in the flows of those ecosystem services.
7		So I'd just like to conclude that this analysis
8		that we've done which provides some, I would say,
9		very alarming results around the nature of the
10		current human footprint in the Peace region and
11		raises some concerns that the human footprint will
12		be exacerbated if the Site C dam and reservoir goes
13		forward, does not address the quality of those
14		ecosystem services as a consequence of historical
15		development or proposed new development.
16	MR. C	CHAIRMAN: Okay. Thank you. We are now
17		running a little behind time. I will allow two
18		more questions, and they will be factual questions,
19		please rather than editorials.
20	MR. E	TOREST: Thank you.
21		Madam Beaudet, you raised a question to Hydro
22		about the percentage of cumulative impacts, and you
23		were asking a question about that. And I wonder
24	MR. C	CHAIRMAN: Sorry, could you identify
25		yourself.

1	MR. FOREST: Ken Forest, I'm sorry	
2	My question that I came up with when y	70u
3	asked that question of Hydro was the actual	
4	rather than a percentage of the cumulative i	mpact
5	which is something that you suggested could	be one
6	of the answers, but there's probably others,	my
7	question would be and I'm going to walk a	ıway
8	from here after I ask the question how in	nportant
9	is a particular area? In a car, the fender	may not
10	be as important as the carburetor if they're	both
11	damaged. And in the area of the Peace, if t	the
12	River Valley is damaged, but an area on some	ridge
13	is not, then maybe that.	
14	So my question would be in terms of	
15	cumulative impacts, is it just a percentage,	or is
16	there something more than just the percentag	je?
17	Thank you.	
18	MR. CHAIRMAN: Chief Willson.	
19	CHIEF WILLSON: Thank you, Chair.	
20	Chief Willson, West Moberly First Nati	lons.
21	My question is to the extent of the	
22	cumulative impacts assessment, in what conte	ext is
23	it being applied?	
24	The context of treaty rights is an one	joing
25	context. So the date of 2012 does not take	into

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1	the context of ongoing Treaty rights. So the West
2	Moberly versus BC First Coal court case, the judge
3	stated in there that they have an obligation to
4	look at impacts prior to the ongoing impacts and
5	future impacts of what is happening.
6	So a cumulative impact assessment in the
7	context of Treaty rights is not met by the 2012
8	line that they drew. And in light of what we saw
9	with Dr. Faisal's presentation, it falls far short
10	of meeting constitutional obligations of the
11	province and Canada.
12	MR. CHAIRMAN: Maybe I can summarize that in
13	the form of a question. In the cumulative impact
14	assessment that Hydro undertook, did you look at
15	the cumulative impact of developments on Treaty
16	rights?
17	MR. PROVERBS: Yes, Mr. Chair, we did.
18	MR. CHAIRMAN: Perhaps you could reference
19	the section where it's described.
20	MR. PROVERBS: Yes. It was set out in
21	section 34 of the EIS. We also looked at, in
22	section 19, current use of lands and resources for
23	traditional purposes, past use, current use, and
24	recently-anticipated future use.
25	THE CHAIRMAN: All right. I think that will

1	do us for now. Mr. Moola, thank you very much for
2	making your
3	MR. MOOLA: Thank you very much for the
4	opportunity.
5	MR. CHAIRMAN: I would like now to turn to
6	Clara London.
7	Ms. London, we have nominally 15 minutes left
8	in this session and two presenters, so could I ask
9	you to be as swift as possible, consistent with our
10	transcribers being able to keep up with you. Thank
11	you.
12	
13	Presentation by Clara London:
14	MS. LONDON: Thank you, Mr. Chair.
15	Thank you, Panel, and Mr. Chair, for hearing
16	me today.
17	me coda,.
	My name is Clara London. I am a third
18	
18 19	My name is Clara London. I am a third
	My name is Clara London. I am a third generation land owner of land in the Bear Flat
19	My name is Clara London. I am a third generation land owner of land in the Bear Flat area.
19 20	My name is Clara London. I am a third generation land owner of land in the Bear Flat area. My husband, Dale London, and I own a third
19 20 21	My name is Clara London. I am a third generation land owner of land in the Bear Flat area. My husband, Dale London, and I own a third generation land that will be affected by the
19 20 21 22	My name is Clara London. I am a third generation land owner of land in the Bear Flat area. My husband, Dale London, and I own a third generation land that will be affected by the proposed project. Our son, Brad, will soon be a

1	My grandfather, Lloyd Bentley Senior, bought
2	land along the Peace River at Bear Flat in the late
3	1940s. I was raised on my father, Ira Bentley's
4	hereford cattle ranch, which bordered my
5	grandfather's ranch.
6	Combined, the two ranches encompassed,
7	approximately, 3,840 acres of privately-owned
8	property.
9	I had some of my grandfather's land left to
10	me. And Dale and I purchased some land that was
11	part of my father's ranch.
12	And along with our son, Brad, we now live at
13	the top of the Bear Flat hills.
14	Dale and I owned cows for 16 years. Four
15	generations of us have had the great opportunity to
16	work, live, and enjoy the Bear Flat area.
17	Because my family have lived and worked for
18	generations at Bear Flat, we have extensive
19	knowledge and understanding of this area. I have
20	covered the 3,840 acres, plus other lease land and
21	outlying land on horseback, Jeep, Suburban,
22	motorcycle, three-wheeler, four-wheeler, Ranger,
23	and many four-by-four trucks.
24	I've cut firewood, fixed endless miles of
25	fence sorry bailed hay, fed cows, helped with

1 calving, chased cows, operated a swather, ran 2 tractors, picked rocks, and, et cetera. I have been to all four corners of this 3 expansive area over 40 years. Through all of this, 4 5 I have observed the natural working of the Bear 6 Flat area. 7 I will be speaking today of the Bear Flat area because that is my expertise. I hope that you 8 9 will give weight to what I have to say here today. 10 I have 12 topics of concern that I will 11 cover. 12 Number one is agriculture. 13 I want to have quality food at a reasonable price for the rest of my life and for generations 14 15 to come. You cannot recreate the rich, black soil 16 and growing conditions that exist in the valley. 17 The valley acts as a natural greenhouse, and there 18 are others who will speak on this topic, so I will 19 leave this to them. 20 Number two is landowners. 21 The people most affected by the proposed 22 The topic of the project have been ignored. 23 displacement of my family and neighbours is not 24 getting any recognition. I value my family -sorry -- my sister and brother-in-law live in my 2.5

1 grandfather's house. And my mother lives in the 2 restored 1921 Bear Flat Schoolhouse that you saw 3 the picture of earlier. And they live on what was my grandfather's ranch. And they will be displaced 4 5 -- sorry -- and forced from their homes and the 6 valley by the proposed project. 7 They and other people that face the same fate deserve to be acknowledged and respected. And this 8 9 has not taken place so far. My father started the Bear Flat campgrounds. 10 11 My sister, mother, and brother-in-law now run the 12 campgrounds, and we spend a lot of time there 13 visiting the family and friends. I will not go

Scenery, number three.

just skip down from there. Thank you.

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The landscapes and the views in the Peace valley are exceptional. Anyone living or travelling in the valley know to always have a camera ready because the landscapes and wildlife will always offer great photographic opportunities.

into the effects on this campground as that has

been previously covered by my sister, so I will

I spend time taking photos mainly of scenery and wildlife at Bear Flat. My husband has a motion detector camera out to capture great wildlife

1 photos. 2 The scenery is one of the things that Dale 3 and Bradley and I take great pride in showing off to others. Any time that we have visitors, we take 4 5 them to one of several locations on our property so 6 they can be in awe at the scenery and take photos. 7 We take photos of our visitors during the 8 spring, summer, and fall, as the location is not 9 accessible by vehicle. 10 The Peace River and Bear Flat valley is the 11 backdrop. The visitors always love the view and 12 always want to return to the location on return 13 trips. If the river is turned into a reservoir, no one will enjoy the view of destruction, and they 14 15 will not want their photo taken here. 16 Number four is hunting. 17 Bear Flat has bountiful wildlife. Once being 18 referred to by Alexander Mackenzie as a stall 19 yard (phonetic). Hunting is an important industry 20 in the Peace River. Others are covering the 21 industry, part of it, so I will leave that to them. 22 I am going to cover the importance of hunting to my 23 family. 24 Hunting is of great importance to Dale, Brad,

2.5

and I.

The fall is a great social time for us, as

we invite friends to come and visit and spend hours
viewing wildlife on our property at Bear Flat.

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The deer, the elk, and the moose supply us and our family and friends with fresh, organic healthy food. The Bear Flat area supports large numbers of mule deer and elk. And if the proposed project is built, the great number of all the species of wildlife will drown trying to cross the newly-formed reservoir in late fall and early winter.

For the past 26 years, Dale and Brad and I have had our meat supplied only from our property at Bear Flat. Twenty-four of these years has been supplied by wild meat. The other two years were by our own cows.

The proposed project will also result in the displacement of wildlife as they will lose the food supply in the valley, and will lose the safety of the valley and, therefore, their numbers will decline.

The valley needs to exist as it is today to protect the population and variety that are there today. The wildlife cannot just go elsewhere because the valley is their food supply, especially in the hard winters. They feed on the south-facing

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hillsides and eat in the farmers' fields. If the proposed project were to be built, the farmers would be forced from the valley and one of their important food sources would not be there.

Dale has hunted all of his life at his brother's ranch, at his uncle's ranch, at a cousin's ranch. And then when he met me, on my father's ranch. Dale is now a disabled hunter in a wheelchair. And if the proposed project were to be built, he would be losing an important portion of his hunting area.

Dale had a friend build him a hunting hut for him ten years ago. Dale and Brad and other friends spend a lot of time in the fall hunting from this hut. This hut will not be able to be used if the proposed project proceeds as the highway realignment will bring the highway to within 80 yards of the hut, and the minimum is 440 yards to legally discharge a firearm.

This will greatly impact Dale's recreation that he and Brad and friends enjoy. Dale cannot just go elsewhere to hunt as he is unable to walk to access land elsewhere and this is why he sits in the hunting hut.

The importance of hunting to our family is

1	great; we look forward to hunting season. And
2	friends plan trips to be able to join us, and we
3	plan all events to not disturb this important
4	social season. We spend weeks with our friends
5	socializing and sharing our past year with them.
6	We have seen how industry can greatly impact
7	wildlife movements and decrease their populations.
8	Number five is gravel.
9	The proposed project will inundate and make
10	inaccessible a couple hundred years of supply of
11	gravel. The deposits in the affected area are huge
12	and valuable to us and future generations.
13	Number six is fresh water.
14	Fresh water is vital to all life. The
15	proposed project will inundate thousands of natural
16	springs. We need to preserve the natural
17	watersheds.
18	Number seven is undiscovered treasures.
19	There are rare finds yet to be discovered in
20	the valley that should not be flooded as they will
21	then be lost forever. An example of this, as
22	mentioned earlier, is this 24,000-year-old mammoth
23	tusk. I found it along the Cache Creek after a
24	spring flood.
25	Number eight is flora.

1 The wide ranging and huge variety of grasses, 2 plants, trees and flowers all need protection. have here a picture of a rare flower that I have 3 seen at the top of the Bear Flats hills only three 4 5 times in my entire life. 6 Number nine is river otter. 7 The river otter live in the Peace and 8 tributaries and have been ignored by the proponent. 9 BC Hydro did not do the studies on river otter. 10 I have submitted three submissions to the 11 environmental assessment office regarding the fact 12 that the river otter should be included. 13 date, they have not been. 14 The river otter was put on a watch list, but, 15 to date, I do not believe that any of the watch list information has made it onto the site. 16 17 Number ten is the oil and gas industry. 18 Regarding the cumulative effects of the 19 multiple industries here in the north, they're 20 huge. And what I have here in our area within two 21 kilometres radius of my house is ten oil and gas 22 And what I have here is a ten-year diary of wells. 23 oil and gas problems. And this is only within a 24 two-kilometre radius of my house. 2.5 And the only reason I bring this up is to

1 express how impacted the north is already, and, 2 especially with oil and gas, and that the risks are 3 real. And if the project were to go through, the highways would be in a greater danger than they are 4 5 at present. 6 Number 11 is grizzly bear. 7 And I have requested for a document, 8 number 274, to be pulled up. And if we could go 9 to, within it, I believe submission number four is a picture of a grizzly bear. And, in fact, I have 10 11 four pictures on the submission of -- with the 12 grizzly bear. Two of these pictures are a grizzly 13 bear at Bear Flats. 14 Sorry, that particular one is the black bear. 15 I will refer to that one in my next talking point. 16 The grizzly bear, there is two of them there. 17 And it was taken by my husband's motion detector 18 camera at Bear Flat at the hunting hut that I 19 referred to earlier. 20 Number 12 is the black bear. 21 And as you have seen the previous picture, I 22 have submitted five presentations to the 23 environmental assessment agency regarding the black 24 bear. And so the reason I have such a concern with 2.5 the black bear, and I've spent a lot of time on it

1 with the proponent, BC Hydro, is because I live in 2 Bear Flats, and it is named Bear Flats for a 3 reason. The origin of the name Bear Flat comes from 4 5 the year 1793 when Alexander Mackenzie and his men 6 travelled through the area and was taken from his 7 note: 8 9 "We, this day, saw two 10 grizzly and hideous bears." 11 12 Okay. And the Bear Flat area, the way it 13 exists today, is critical for the black bear. 14 black bear exists there in great numbers. As you 15 can see referenced, I submitted one picture that 16 had a total of five black bear in the photo. 17 then I submitted another one that had a black bear 18 mother with the three cubs. 19 So the black bear rely on the valley for the 20 food source. The valley provides them with meat, 21 berries, plants, roots, and farmers' crops. 22 the proposed project would greatly reduce all of 23 The black bear dens will be run over during 24 the planned winter clearing along the Peace and the

tributaries.

1	And I have used a quote taken from BC
2	high-tech BC Hydro Tack, wildlife draft summary
3	notes, tack workshop number one, October 22nd/23rd,
4	2008:
5	
6	"Black bears are known to den
7	in the valley. Care should be
8	taken during cleaning activities
9	with respect to bear dens."
10	
11	The proponent has totally disregarded this
12	statement and have refused to do studies on the
13	black bear; although, it was pointed out repeatedly
14	at meetings and open houses that the black bear
15	were of great concern to area residents and needed
16	to be studied.
17	And from there, I would like to go to the
18	submission that I handed in at the door. And what
19	it is is I attended yes, sorry I attended
20	meetings throughout all of this process that were
21	put on BC Hydro by BC Hydro. It the fact
22	that the black bears were not being studied was
23	brought up a lot at the meetings.
24	I was not accepting of BC Hydro's reason for
25	not studying the black bear. I started doing

1	correspondence with BC Hydro, trying to get to the
2	bottom of why they were not studying the black
3	bear. Through the correspondence, and later on
4	through a Freedom of Information request with
5	BC Hydro, I tried to get to the reason for their
6	conclusion for not studying the black bear. And I
7	have spent I spent six months doing the
8	correspondence with BC Hydro and doing the Freedom
9	of Information request.
10	And so what the FOI request and that
11	submission shows is that BC Hydro's statement to me
12	and that we had heard at meetings for their
13	reasoning for not studying black bear I'm just
14	going to read the quote that was put on the
15	submission to me from BC Hydro. And, like I said,
16	we've heard at the meetings. And the quote is:
17	
18	"The Ministry of Environment
19	identified black bears as present
20	in the area, but not necessarily of
21	priority interest in the context of
22	the Site C project."
23	
24	So when I was hearing this quote, and when I
25	read it in the correspondence from BC Hydro, I was

1 not accepting that somebody from the Ministry of 2 Environment would actually state this regarding the 3 black bear. And that is why I went to the extent 4 of doing the Freedom of Information request. 5 And so what I have discovered from my Freedom 6 of Information request and correspondence, I will 7 read, which is the conclusion of my submission. And, oh, sorry, I just have to back up one second 8 9 here. So what the FOI request shows it that 10 11 BC Hydro's statement, the one that I just read to 12 you for not studying the black bear, was actually a 13 statement made by the Ministry of Environment regarding the grizzly bear, not regarding the black 14 15 bear. 16 So in conclusion of my six months of trying 17 to track down why someone from the Ministry of Environment would state this regarding the black 18 19 bear; in conclusion, I believe that BC Hydro's 20 decision to not include study or include the black 21 bear as a VC, valued component, was in error.

And from that, I am -- I just have a short

BC Hydro manufactured their own conclusion by

manipulating the Ministry Environment's grizzly

bear statement to stand in place for black bear.

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1 little bit and then a conclusion and I will 2 conclude. Thanks. An example of a black bear den, because I'm 3 trying to point out the fact that the black bear 4 5 will definitely be impacted, and so an example that 6 I'm going to use is I know of a location of a black 7 bear den in Bear Flat. It was occupied in the winter and spring of 2009. 8 It is within the 9 proposed inundation area and would, therefore, be underwater within the new proposed reservoir. 10 11 den is surrounded by timber that would be cleared 12 during the planned winter clearing along the river 13 and tributaries. Had the clearing happened in 2009, the bear 14 15 den would be disturbed, run over, and this bear would have died. If there had of been cubs in the 16 17 black bear den, nobody knows for sure because 18 nobody probed quite that deep to discovery this, 19 the cubs would also have perished. And so this is 20 just an example of the fact that the black bear 21 dens do exist in the valley and are in the impacted 22 areas. 23 Okay. And just one last point on the black

bear and then I'll just do a conclusion.

In document number 275, which I have

24

1 requested to be played, there is a picture of -- I 2 call it a Kermode bear, but perhaps it is only to be referred to as a white bear, at Bear Flat. 3 hopefully that video will play. 4 5 There should be a total of five bear. 6 this is at Bear Flat. And we pan over and we get 7 video footage of a white bear. Yeah, so there's the white bear. 8 9 believe there -- there was either four or five bears, and they were playing on the hillside. 10 11 And I also have submitted a photo of the 12 white bear possibly the same one as a cub. 13 local photographer had taken the cub picture. And this is possibly the same white bear as an adult on 14 15 the hills at Bear Flat. And I just wanted to point 16 that out because a white bear, especially up here, 17 is extremely rare, and it needs to be protected. 18 And BC Hydro is not acknowledging such things that 19 this unique valley holds, such as the white bear. 20 Okay. 21 And I would just like to do my conclusion, 22 thanks. 23 Our roots run deep at Bear Flats. We have a 24 great connection to the land and the wildlife.

the reality is that the impacts will be great.

1	The valley is paradise for all that live
2	there and travel there and needs to be preserved.
3	If properly managed, the valley will provide for
4	generations to come. We hope that our son,
5	Bradley, and our future generations will be able to
6	live in and enjoy the valley as the past three
7	generations have.
8	There is a saying:
9	When we know better, we do better.
10	Let's say no to a third dam on the Peace
11	River because the devastating results are in front
12	of us and we now know better. There will be
13	significant adverse environmental effects at Bear
14	Flats and the proposed Site C dam needs to be
15	permanently cancelled.
16	Thank you.
17	MR. CHAIRMAN: Thank you, Mrs. London.
18	Madam Beaudet, did you have a question?
19	MS. BEAUDET: Thank you, Mr. Chairman.
20	I was wondering if you have some fieldwork
21	notes and we did ask a question about the stone
22	sheep and you did provide us an answer. And I was
23	wondering if you have equivalent data with the
24	otter, the river otters?
25	MS. YURKOVICH: I would have to check. And

1		perhaps after the brea	ak, we could confirm whether
2		we have that or not.	
3	MS.	BEAUDET:	Thank you.
4	MR.	CHAIRMAN:	Mr. Mattison.
5	MR.	MATTISON:	Ms. London, do you know the
6		name of that plant the	at you've shown us a picture
7		of?	
8	MS.	LONDON:	No, I don't, sir.
9	MR.	MATTISON:	Okay. Thank you.
10	MS.	LONDON:	Like I say, I've only seen it
11		three times in my ent	ire life. And it is up close
12		to where my house is	at the top of the Bear Flat
13		hills.	
14	MR.	CHAIRMAN:	Thank you very much,
15		Ms. London.	
16	MS.	LONDON:	Thank you.
17	MR.	CHAIRMAN:	Given the time, I wonder if
18		Mr. Hochstein is here	? Would you come forward,
19		please.	
20			
21	Pre	sentation by Philip Hoch	stein, Independent Contractors
22		and Business Associat	ion
23	MR.	HOCHSTEIN:	Thank you. Given that I am
24		standing between you	and food, I will be as brief
25		as I can. Thank you.	

1	My name is Philip Hochstein,
2	H-o-c-h-s-t-e-i-n. I'm the president of the
3	Independent Contractors and Businesses Association,
4	the voice of the construction industry in British
5	Columbia.
6	Our 1100 member companies work in every
7	sector of the construction industry: commercial,
8	industrial, institutional, and both single family
9	and multiple family residential.
10	Over the past 15 years, our members have been
11	part of every major construction project in British
12	Columbia; The Sea to Sky Highway, the Canada Line
13	Rapid Transit project, Mount Milligan, Gibraltar
14	Mines, Vancouver Convention Centre, just to name a
15	few.
16	MR. CHAIRMAN: Remember, you are being
17	transcribed, so watch your speed. Thank you.
18	MR. HOCHSTEIN: Right. Okay. I'm sorry
19	about that.
20	I'm here today in support of the Site C
21	project. Renewable electrical powers British
22	Columbia's economy by creating wealth. Only a few
23	industries accomplish this: fisheries, agriculture,
24	forestry, oil and gas, and mining are the leaders
25	in this field. And I wish I could say that about

1 my industry, the construction industry, but I 2 cannot. My industry relies on those industries 3 that create wealth. When others create wealth, that allows the 4 5 construction industry to do its thing; build 6 operations, put up the new homes for the workers, 7 and construct the commercial and industrial space 8 used by companies supplying both the owners and the 9 workers. 10 And then the flow continues from our 11 companies to our suppliers, from construction 12 workers to restaurants and retailers, from pay 13 cheques to government revenues and government 14 services. 15 Wealth creation industries rely on hydro 16 power to be successful. That makes projects like 17 Site C the starting point to wealth creation in our 18 province for years to come. 19 And Site C is itself an economic engine. 20 What is the horsepower of the Site C engine? 21 Site C will contribute 3.2 billion dollars in 22 GDP to the economy. This will, in turn, generate a 23 ripple effect through the economy; new consumer 24 spending, new residential investments, new industrial and commercial construction as well as

1 investments in machinery and equipment. Site C will create 10,000 direct jobs during 2 construction. 10,000 is a significant number of 3 jobs, to be sure, but what we are talking about is 4 5 more than just jobs; it's 10,000 families 6 collecting pay cheques; it's 10,000 people paying 7 taxes, locally, provincially and federally. 10,000 families building better futures. 8 9 It means busy times in all kinds of businesses here in the Peace because the project 10 11 will create another 23,000 indirect jobs. And who 12 stands to benefit? Local retailers, local hoteliers, local realtors, local restaurants, local 13 14 car dealers, just to name a few. 15 Site C will also provide benefits to 16 taxpayers in the form of additional revenues to the 17 federal, provincial, and local levels of 18 government. Construction of Site C means nearly 19 500 million in new revenue for all three levels of 20 government. 21 Once operational, Site C will contribute 22 43 million dollars annually to the provincial and 23 local governments through grants in lieu of taxes, 24 school taxes, and water rentals. This will pay for

community centres, hospitals, and schools that all

BC residents expect and enjoy. But the benefits of this project extend well beyond the project itself.

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Access to clean green power is a competitive advantage for our economy. The major project inventory of the BC Ministry of Jobs indicates that there are some 195 billion dollars worth of capital projects on the books over the next decade. These projects will need power in that 195 billion dollars will spin off even more construction activity and jobs in local communities.

Beyond these economic benefits of this project, it's important that this project also be constructed and operated in an environmentally sensible manner.

Rest assured, my industry, the construction industry, will help ensure the project is responsible and sustainable. Our sector has become global leaders of lightening the impact our activities have on the environment from the sourcing of materials, to the recycling of construction waste, to using state-of-the-art technology that reduces impacts over the long term; the construction companies who built Site C will help Hydro protect the environment.

In terms of creating jobs and new

1 opportunities, Hydro has made substantial 2 commitments to helping generate economic benefits 3 for First Nations. It is worth noting that members of ICBA welcome the opportunity to partner with 4 5 First Nations to foster new employment and skills 6 training opportunities. 7 For example, Gisborne Group, a 60-year-old 8 company in British Columbia and ICBA member, who 9 has worked on numerous industrial projects around the world, have made -- I will slow down. 10 11 Gisborne, a member of ICBA, has worked on 12 numerous industrial projects around the world and 13 have made partnering with First Nations a key part 14 of their approach. 15 On the Copper Mountain Mine project, Gisborne 16 partnered with the upper Similkameen Band to host a 17 general information session and then follow up with 18 workers the Band pre-screened and recommended. 19 At Gibraltar Mine, the company worked with 20 First Nation labour brokers to help staff the 21 project. This is the kind of commitment and the 22 kind of partnerships we will see when Site C moves 23 ahead. 24 There are also worries about skill shortages 2.5 in construction over the coming year. Aside from

2.5

the skills training initiatives Hydro is prepared to fund as part of Site C, the project itself will help get people trained.

Projects like Site C are the key to getting people trained because companies take on new workers and new apprentices and connect them with skills under one major condition; the knowledge that the company will have work tomorrow and the day after tomorrow to keep these young people employed. Site C brings with it that confidence.

In the big picture, BCGDP can expect a boast of 3.2 billion, an economic engine level of activity that drives many benefits. It is very clear that Hydro has done its homework.

The environmental impact statement is testimony that BC Hydro has been working very hard to ensure that the negative impacts of the project are either mitigated or eliminated. That means working with First Nations, working with communities, and working with landowners to ensure people are treated fairly. That means taking extra care to ensure the environment is protected and the dam footprint is minimized.

I was going through some of the submissions to this Panel, and I came across one written by a

1	fellow who is arguably British Columbia's
2	preeminent engineers: Henry Wakabiachi.
3	Mr. Wakabiachi is a member of the Order of BC and
4	the Order of Canada and was an engineer on the
5	original W.A.C. Bennett dam as well as the Peace
6	Canyon dam.
7	Over the years, he displayed his expertise to
8	some of the province's major economic developments
9	and infrastructure projects.
10	MR. CHAIRMAN: Watch your speed, please.
11	MR. HOCHSTEIN: Okay.
12	Now retired, but still with a keen eye on the
13	future of the province, Mr. Wakabiachi believes
14	that Site C, like the hydroelectric projects before
15	it, will be truly transformative.
16	
17	"When we look at the economic
18	opportunity and quality of life
19	that our province enjoys today",
20	he write, " we would be remiss if
21	we did not give proper credit to
22	the vitally important role that
23	these heritage hydro assets have
24	played in the building of our
25	province."

1	
2	He points out that communities throughout
3	British Columbia owe their very existence to our
4	heritage hydro assets. And it's not just people in
5	Metro Vancouver who have been the beneficiaries, as
6	some would have us think, but our mining and
7	forestry communities thrive because of the
8	foresight and vision of previous generations who
9	saw the benefits of clean, renewable power.
10	Mr. Wakabiachi reminds us that there were
11	those back in the day who opposed the Bennett dam.
12	Just like there were people who opposed virtually
13	every other major project along the way. But as he
14	notes, each of those projects have stood the test
15	of time.
16	He concludes by calling upon all of us to be
17	bold, be visionary and, most of all, to be guided
18	by the foresight that will help us leave a positive
19	legacy for generations to come.
20	With those thoughts in mind, I urge the Panel
21	to give Site C its most enthusiastic endorsement.
22	Thank you.
23	MR. CHAIRMAN: Thank you, Mr. Hochstein.
24	Are there any questions that anybody wished

to raise to Mr. Hochstein?

25

1		We have one	.		
2	MR. LITT	LE:	Tim Little	e.	
3		My question	n to the Chair,	through t	he Chair,
4	is	that we've had	d several preser	ntations t	o date,
5	an	d, in the alter	nate, energy fo	olks, they	said that
6	th	eir version wou	ald spread this	great con	struction
7	bo	om across the p	province.		
8		Yesterday,	we heard on the	e news tha	it the
9	Pr	osperity Mine w	was needed for t	the Willia	ıms Lake
10	ar	ea, the Caribou	area, because	there was	no work
11	th	ere.			
12		If this pro	oject is to be	given to t	the Peace,
13	wh	ich is at a 3.4	percent unemp	loyment ra	ite right
14	no	w, and since I	did work on the	e Bennett	dam and
15	OV	ersaw some of t	the stuff on sit	te; one, a	ı good
16	pe	rcentage of the	e workers on bot	th those p	rojects
17	cai	me from outside	e the province.		
18		And, sure,	some of the cor	mpanies in	n BC
19	be	nefitted from w	what was a sign:	ificant po	rtion of
20	th	e work that wer	nt to Alberta an	nd elsewhe	ere as is
21	wi	th the natural	gas industry he	ere. So w	re got to
22	be	careful if we'	re going to	if we're	looking at
23	ec	onomic deal for	the province,	these oth	er things,
24	li	ke the alternat	e energy deals,	, gives yc	our members

significant work right now when they're being done

25

1		like some projects	were done by a lot of
2		people	
3	THE	CHAIRMAN:	Do you have a question, sir?
4	MR.	LITTLE:	My question is: Will that
5		not those alternate	es give you folks the same
6		work?	
7	MR.	CHAIRMAN:	For the record, could you
8		state your name again	
9	MR.	LITTLE:	Jim Little, L-i-t-t-l-e.
10	THE	CHAIRMAN:	Thank you.
11	MR.	HOCHSTEIN:	The unemployment rate in
12		construction is well	above 3.4 percent. I don't
13		know, this region may	be blessed with work, but
14		it's not shared throu	ghout the province.
15		And the work th	at BC Hydro this the
16		project itself will go	enerate 10,000 jobs. But
17		because of what it pro	oduces, it will generate work
18		well beyond its place	
19		And the run of	river projects are good and
20		they do supply work for	or my members, but they're not
21		going to be sufficien	t to fund the 195 billion
22		dollars worth of proje	ects that are on the books for
23		the next	
24	MR.	CHAIRMAN:	Just one question of fact.
25		You mentioned 10,000	jobs and 23,000 indirect jobs.

1	I take it that was person-years or something? That
2	wasn't jobs?
3	MR. HOCHSTEIN: Person-years, yes. Thank
4	you.
5	MR. CHAIRMAN: All right. Thank you.
6	I think we are going to have to break for
7	dinner now. We're running about 20 minutes late.
8	I would suggest that we reconvene at 7:15.
9	Thank you very much.
10	
11	(Proceedings adjourned at 5:22 p.m.)
12	(Proceedings reconvened at 7:12 p.m.)
13	
14	THE CHAIRMAN: Good evening. It's 10 past
15	7:00, or 12 past $7:00$, and not the advertised 15,
16	but since everybody is here, I thought we might as
17	well start because BC Hydro says they're ready to
18	respond to a couple of undertakings.
19	Over to you.
20	MR. HADLAND: Mr. Chair, if we may, there
21	are two matters if we could address. One is,
22	before the break, there was a question about river
23	otters, and Ms. Jackson is in a position to provide
24	that response.
25	After she does that, I can provide the Panel

1	with an update on the	posting of the IRP and three
2	undertakings.	
3	MS. JACKSON:	Good evening.
4	Before the break	, I believe we were asked to
5	provide an update o	r any information that we had
6	on the observations ma	de with respect to river
7	otter during the field	programs.
8	They were, as wa	s noted earlier, they were
9	placed on what was cal	led a watch list, which meant
10	that while our field c	rews were out when river
11	otters were observed,	their location was recorded.
12	There were a tot	al off six observations of
13	13 individuals recorde	d during 2008 and 2011. They
14	were noted along the P	eace River between Hudson's
15	Hope and the Moberly R	iver.
16	THE CHAIRMAN:	Thank you very much.
17	MR. FELDBERG:	And, Mr. Chair, firstly,
18	there was a discussion	on the first day about the
19	posting of the IRP; st	rictly speaking, I understood
20	that it was the Secret	ariat that was going to do
21	that. I can confirm t	hat BC Hydro has provided the
22	Secretariat with the e	lectronic version of the IRP
23	for that purpose.	
24	THE CHAIRMAN:	Thank you.
25	MR. FELDBERG:	I can also confirm that

1	responses to undertaking number 3, which is with
2	respect to the 2013 poll, number 7 and number 8 are
3	ready to be provided electronically to the
4	Secretariat.
5	With respect to undertaking number 7, that
6	was a request to provide a figure with the
7	Peace-Moberly Tract and the area of critical
8	interest superimposed on it, and also showing in
9	relation to the project activity zone.
10	The undertaking was given with respect to a
11	particular figure that was being shown on the
12	screen at the time. What BC Hydro is able to do
13	has been able to do in the last day is produce the
14	same thing, just not on the precise figure that was
15	on the screen at the moment. It does show the
16	project activity zone and the area of critical
17	interest in the Peace-Moberly Tract. With the
18	consent of the Chair, I would submit that in
19	compliance with the undertaking.
20	THE CHAIRMAN: I'm sure that will do. Thank
21	you.
22	Thank you very much for those.
23	MR. FELDBERG: Thank you, Mr. Chair.
24	THE CHAIRPERSON: Responses?
25	Our first speaker of the evening Karen

1	Goodings from the Peace River Regional District
2	Electoral Area B.
3	
4	Presentation by Karen Goodings, Peace River Regional
5	District Electoral Area B
6	MS. GOODINGS: Thank you very much.
7	First of all, I want to thank you for the
8	opportunity to come before you, the Panel, on this
9	area B concern regarding Site C. Allow me to
10	introduce myself.
11	My name is Karen Goodings. I was elected in
12	November of 1988 to represent electoral Area B of
13	the Peace River Regional District.
14	I have been in this position continuously
15	since that time, and I am proud to say that during
16	those years, or these years, I was also an active
17	member of our family farm were we produce food.
18	The production of food is critical to life, and
19	that is what farmers and ranchers do.
20	Many residents believe that their food comes
21	from grocery stores. Those of us who have spent
22	the greater part off our lives actually producing
23	food know better.
24	The disasters that we are seeing worldwide
25	should wake people up to the fact that we, too, in

1 this more remote region are susceptible to having disaster strike us. To have the ability to grow 2 3 food locally to sustain life and the residents is 4 of critical importance. We must never become 5 totally dependent on other countries to provide the 6 essentials of life. 7 On Monday, December the 9th, I looked up in the current world population clock. 8 It was 9 www.worldometers.info/world-population, and it was mind-boggling to watch the numbers change. 10 11 They change continually with 2.42 times the 12 number of births to the number of deaths. 13 2.5 births for every death. Those numbers are now 14 adding up to well over 7 billion in population 15 worldwide. 16 The population reference bureau at 17 www.prb.org has a wealth of information relative to 18 those world population growths. Their estimates 19 are for phenomenal growth in many of the poorer 20 countries as well as worldwide. What difference 21 does that make to us? It makes lots of difference. 22 We are a worldwide economy. We trade and deal 23 worldwide. We have people that immigrate to all

parts of Canada, including the BC Peace.

Our life expectancy has increased and will

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continue to increase as we learn to live healthier, more socially sustainable lives. We are also working harder in helping those less fortunate countries to better sustain themselves and their families. This is having a positive result for those country life expectancies and will also, no doubt, increase the population even more.

Regardless of were we live, food is essential. Flooding land is unacceptable in this day and age. We are not making much more land, and, in fact, with the rising ocean water from climate change, we are in grave danger of losing land. To actually plan to lose between 13,000 and 16,000 acres of food-producing land is unacceptable to the majority of food producers in this province.

This loss, due either to flooding or by erosion, and in order to establish safe lines in the area that will be lost for future food production. The BC Peace Valley contains the only class 1 land in the northeast; in fact, probably the only class 1 land with a micro climate in the northern two-thirds off British Columbia.

Cheeseman & Davis in 1982 pointed out that the area of climate class 1 in the Peace River valley is unique in BC, north of the 53rd latitude.

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This report also pointed out that the longer day length during the growing season at the northern latitude of the region -- and by the way, hours of sunshine are not included in climate capability analysis -- enhances the capacity to grow crops.

The report went on to say they concluded that consideration of the day-length factor equates some elements of the valley's agricultural potential; for example, vegetable crops to many locations in the lower Fraser Valley and southeastern Vancouver Island. These quotes I took from the PVEA website.

If the Panel members are at all familiar with southern BC, the land that will be flooded if

Site C is approved will be the same as the flooding as the whole of the Delta lands in southern BC.

According to the Ministry of Agriculture, there are 13,864 acres in the Delta.

It is just not appropriate to lose this food-growing land when you consider how quickly the population of the world is growing.

Now, we have our river. The Peace River is an important heritage river and has been the water highway in this region for many years. It was the trading river for First Nations, early settlers, trappers, and of course was the river where many

1 historic forts were established.

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I know you will hear from many speakers on the historic importance of this river and the burial sites and the building sites that will be flooded and lost forever if Site C is approved.

It is equally as important to recognize the impact to two smaller rivers. The Halfway River and the Moberly River are impacted through back flooding for up to 28 kilometers. The Halfway River valley has been an important to ranching, food-producing valley, and there will be impacts, not only in raising the water level, thereby impacting the residents, but by the erosion of the banks that will occur. Evidence of water as a power of erosion can clearly be seen in the Williston reservoir.

Let's think a bit about the recreational impacts if Site C should be approved. It will be 7- to 10-plus years in the building. And before it will be open to public use. And that is projected by BC Hydro. During that time, the river will not be acceptable to the residents in the traditional manner.

Ten years from now, I will be too old to enjoy the river boat. And I know I am not the only

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senior that feels this way, and that it will no longer be a river, but it will be a recreational lake, complete with sloughing banks, changing water levels, unstable ground, no place to moor your boat, to have that afternoon picnic. More deadheads due to the inability to remove all of the vegetation are almost a guarantee.

No more powell (phonetic) for the Peace. No more river. Fishing? How much of an increase in methylmercury? I guess we could catch the fish but not eat them. Did they predict the increase in mercury in the Williston? Were their predictions accurate? You will have the multi-million dollar studies completed by BC Hydro that will try to mitigate all the problems that will occur if we mess with Mother Nature.

The Peace River is where it is by the natural regimes that have been in the place through the force of nature. The impacts of the two previous dams were not to be considered through the examination of this proposal. Those dams had huge impacts on fish, wildlife, flora and fauna.

Do I have proof? No. Only the knowledge that comes from living in this area most of my life. The ability to see the difference in our

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fish stocks, to watch the impact on young,
newly-hatched fish, to know that the islands will
be lost; thereby, losing important cabin grounds.
Once again, the impact on nature is not acceptable.

For those residents of the valley, there are just some things that cannot be mitigated. There are residents that have lived their entire lives in that valley. One resident, or more, is on her third generation as a farmer, and for all of their adult life has had the threat of losing that land looming over the head. To lose the land that her grandfather held precious is not acceptable.

The statement from BC Hydro's spokesperson in the Canadian Press January 28th, 2013 states that that there will be 30 families affected: ten that will be forced to move from; ten that will have to move to other areas of their property, and ten homes that will not have to be moved.

BC Hydro will offer compensation to the landowners. They also stated that "we feel the effects of the project can largely be mitigated through careful project planning and ongoing monitoring of operations." They also stated, "on the balance of it all, we believe that even looking at the things that can't be mitigated, the project

1 should move forward because it's in the best 2 interest, we believe, for the province of British Columbia." 3 Personally, I believe there are many other 4 5 ways to produce power, and we are always striving 6 to be more energy efficient. So let's look at 7 Site C natural gas and the need. 8 The Province has amended the **Energy Act** to 9 allow the companies to use gas to produce power for LNG. Are we going to spend billions to produce 10 11 hydropower when the same amount of power can be 12 produced using natural gas at a fraction of the 13 dollar cost of Site C, and on a much, much smaller footprint, instead of destroying thousands of acres 14 15 off food-producing land? 16 For example, the Shepard Power Plant, 17 Calgary, Alberta, they've just broken ground, will cost about \$1.3 billion. Site C estimate is 18 19 7.9 billion. And the Shepard Power Plant will be 20 situated on about 60 acres of land. Site C impact 21 will be 83 kilometers in length and flood over 22 13,000 acres of prime, food-producing land. 23 The Shepard Power Plant will be open in 2015. 24 Site C estimated opening 2024. A line loss would

be vastly reduced in the Shepard Power Plant model

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1	be	ecause the por	wer plant could be built where the
2	ро	ower is neede	d.
3		I've att	ended many discussions with the
4	ре	eople of the	valley. I have heard from residents
5	wł	no are aware	of the unique topography of the
6	Võ	alley, and we	all appreciate the beauty and the
7	ur	nique tourism	opportunities of the valley.
8		Yes, the	re are those who put perceived
9	f	nancial bene	fit ahead of the need to respect
LO	tł	nose who will	be most impacted. And to them, I
L1	Sã	ay this will l	oe short-term pain short-term gair
L2	fo	or long-term]	pain.
L3		To those	who suggest this is a long-term
L 4	pı	roject will p	rovide power for a century, I say
L 5	tł	nis: I am almo	ost three-quarters of a century old,
L 6	aı	nd it doesn't	take that long.
L 7		Thank yo	ı.
L 8	THE CHAI	RMAN:	Thank you very much.
L 9		Are there	e questions for Ms. Goodings?
20	MS. GOOI	OINGS:	Thank you.
21	THE CHAI	RMAN:	In that case, we thank you
22	V	ery much.	
23		And I wo	ald now call Mr. John Locher.
24			

Presentation by John Locher, Ethix Consulting Inc.

25

1	MR.	LOCHER:	Thank you very much for the
2		opportu	nity for a short brief.
3		S	hould Site C be approved, it will have a
4		signifi	cant impact on communities in the Peace
5		region	of British Columbia, and the benefits of the
6		project	will accrue mainly to the large population
7		centres	in the south of the province.
8		T	he impacts will be construction, period,
9		impacts	and permanent impacts once the facility is
10		operation	onal. The construction impacts will occur
11		over an	eight-year period and, as such, must be
12		conside	red as major.
13		L	iving in a construction zone for eight years
14		is not	something that many people would look
15		forward	to regardless of any potential benefits.
16		D.	uring that construction period, the greatest
17		majorit	y of the impacts will be negative:
18		increas	ed traffic, noise, dust, transient workers,
19		and ove	r-taxed local services. The one potential
20		positive	e impact may be jobs for local residents, or
21		contrac	ts for local businesses.
22		А	s the project will be publically tendered,
23		there a	re no guarantees of local employment or of
24		local c	ontractors being successful on tenders. The
25		positiv	e benefit may not be realized.

Negotiations are underway to mitigate the impacts to local communities during the construction period. It is imperative that those negotiations be successfully concluded before any operating certificate is approved.

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Three local communities will be permanently impacted if and when the project is constructed.

Those communities are the district of Hudson's Hope and electoral areas B and C in the Peace regional direct.

I haven't made any comments on the First

Nations communities, as I don't profess to speak

with any degree of authority for them. These

communities will see a portion of their valley

flooded and lose a river to a reservoir.

For any other major industrial project, those communities would have the ability to obtain benefits for their residents through property taxes. BC Hydro's generating facilities pay a grant in lieu of taxes. The magnitude of the grant is established by the Province without negotiations, with a jurisdiction that the facilities are located in. It is there for the Province that arbitrarily determines the benefit that permanently-impacted communities and the

1		residents will receive.
2		Should the proposed Site C dam and its
3		reservoir not be subject to taxation by the local
4		authority, the grant in lieu of taxes should be
5		negotiated in advance of the start of construction
6		to ensure that local residents are adequately
7		compensated for the permanent impacts that the
8		facility would have.
9		Comments to the effect that I believe those
10		conditions should be in place before approval is
11		granted is not based on any mistrust of the
12		parties; it is on the basis that if there is a
13		deadline, the more opportunity there is for those
14		negotiations to be successful.
15		I thank you for the opportunity to provide
16		these brief comments.
17	THE	CHAIRMAN: Thank you for your comments,
18		sir.
19		Are there questions for Mr. Locher?
20		No, somebody was putting his coat on.
21	MR.	LOCHER: Thank you.
22	THE	CHAIRMAN: Thank you very much.
23		The next scheduled presentation is from
24		Arthur Hadland and Laurel-Anne Hadland. Welcome.

1 Presentation by Arthur Hadland and Laurel-Anne Hadland: 2 MR. HADLAND: Thank you, Mr. Chairman, 3 Panelists, and the gallery and proponent. My name This is my wife, Laurel 4 is Arthur Hadland. 5 Hadland. 6 We are owner/operators of Gramen Seed Farm. 7 And I just wanted to clarify that I do have the 8 role as electoral director for area C, and my 9 intention is to present at Hudson's Hope under the community session. This is a general session, and 10 11 somehow we could got confused, but my intention is 12 to present as ratepayers of BC Hydro, citizens of 13 the Peace, and farmers. Our farm is called Gramen Seed Farm, and that 14 15 means "grass" in Latin. That's what we produce is 16 grass seeds, Laurel and I. 17 I, first off, have got to say I'm pretty 18 humbled by the previous presentations, and I hope 19 that I can come up to scratch on this one. 20 So what I'm going to do is just a bit of a 21 preamble and I'll cover off some of the issues that 22 I think are important to our community, our region. 23 First off, to start off, I was just going to 24 say that I was concerned about what was happening 2.5 with BC Hydro back in 2005. There was a proposal

1 to sell it, at least as far as I understand, it hit 2 the press very briefly, and was quickly scrapped 3 because it fell on the tails of BCR sale, and the backlash on that is still being felt today. 4 5 So I am concerned about some agendas that 6 maybe are not in front of us. And that was further 7 compounded. I attended the FCM in Victoria, 2010, 8 that's the Federation of Canadian Municipalities, 9 and the opening presentation was by -- I think it was Murray Coell. He was then the Minister of 10 11 Environment. And if you had been sitting in the 12 audience, you'd have thought that construction was 13 already started. I do have a problem with that. This thing has been -- I don't know what the word 14 15 It's seems like it's a fact of completion. 16 And I don't think it is. I have every confidence 17 in the Panel. 18 And I just go on to say that the -- most of 19

And I just go on to say that the -- most of the items I'm going to bring up here are not mitigatable; I don't see how you can mitigate them, and I'll try and go through them.

I will try and speak slow.

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And it's been mentioned by previous speakers, but we have the failed attempts to flood the valley in 1982 and 1992, and the Panel, the BCUC,

1 BC Utilities Commission at the time, were very 2 clear that it was a no-qo. And the information 3 that had been provided by the proponent didn't sustain examination. 4 5 Since then, we've had the Clean Energy Act, 6 and I really think that is an act of hypocrisy. 7 And of course that was brought to the fore when all off a sudden natural gas for the LNG plants was 8 9 considered green and clean. 10 I have always considered natural gas a clean 11 source of fuel, so -- being raised in this area, and that's how we heat our homes. 12 It heats the 13 rest of the province, by the way. I think that we 14 should celebrate natural gas and as other people 15 today have presented that. We have done our fair share in the Peace 16 17 region for this province. We have two dams: W.A.C. Bennett and the Peace Canyon. I think that 18 19 we have done more than our fair share, actually. 20 And we have had little left behind. 21 Hudson's Hope continues to wither on the 22 vine. We have the cloud of expropriation has hung 23 over the valley for the last 55 years. And I just

want to maybe just address that before I get into

the main part of my presentation.

24

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1 We have a farm, Laurel and I, and we have 2 been faced with the power of expropriation 3 12 times. That sort of bugs me. It bugs me a lot, actually. We've had the Alaska Highway -- excuse 4 5 me, I got to have a drink. Excuse me. Anyhow, the -- so our family, the family 6 7 farm, which goes back to 1928, has had the power of 8 expropriation forced on us 12 times. It was the 9 Alaska Highway, there's the BCR, there was twelve 10 pipe, there was six pipe lines. There was BCR, 11 BC hydro line. And then there was actually two --12 my father was very straight about this; he didn't 13 like being bossed around. And he has two Board orders that go back to 1957 on two well sites. 14 15 So we know what expropriation is. And I'm 16 just going to -- I put together this little 17 statement. I'm just going to talk about 18 expropriation. 19

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This is an ugly vehicle of convenience used by government authorities over people who, through no fault of their own, are very negatively impacted by this power. It is all of the people of the valley who have lived this threat for the past 55 years with no recognition or compensation for the silent, but omnipresent cloud over their lives.

1 I do not see how this can be mitigated in any form. 2 And, of course, that's what's happened is 3 we've had a depopulation of the valley, and of course that's used now by the proponents because we 4 5 hardly have any families left because everybody 6 quit and gave up, and now they just grow grasses 7 mainly to -- a very low level of agriculture because there's no hope, no long-term commitment to 8 9 producing food. And I think that's -- I'll try and demonstrate as I go through. 10 11 Anyhow, I'll get into the main part of the 12 presentation here. If I'm getting too long, please 13 signal and I'll close it out. 14 I think the river is unable to speak for 15 itself, and we are asking you, the Panel, to undertake this role. I've included in that 16 17 package, I sent a PowerPoint titled "Voice for the 18 Peace", which describes many of the characteristics 19 of our Peace River valley, and that is -- I think

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speakers.

I think in the larger picture, a river in its valley have always been the genesis of civilizations around the world. When rivers are

covers a lot of the things that I'll -- I won't

cover them today, they've been covered by previous

destroyed or neglected, the civilization eventually disappears.

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The Euphrates River comes to mind. There's many other civilizations. If anybody is curious, you can read Jarred Diamond's book "Collapse". He covers it off quite well.

In a word, there is a need for stewardship of our very precious resource. And it's all of ours.

It's the province's, it's our region's, the Peace River valley.

I think the project purpose, I think we really have to question what's going on here. When proposed C was announced in April 2010, the intended purpose was very clearly stated; it was export energy to California. If that were the case — and I presume it would be a long-term commitment. Fortunately, the citizens of California would not recognize that the flooding of the river valley is green or clean.

Since that time, this purpose has changed -
I'm sort of losing count actually -- has changed at

least four times, maybe five times. It went to

410,000 homes. It went to the Horn River. I'm not

sure there wasn't a bit of tar sands thoughts going

in there. Then that was decided it wasn't good.

1 Then we went to a 450,000 homes because there 2 was more energy found in the valley, somehow. 3 After 30 years, it was 900 megawatts. And it became 1,100 here last year. 4 5 And then the last one I heard from our Minister of Agriculture that it's now for industry. 6 7 I think this suggests there's no purpose, 8 there's no plans, and I don't think there's a need. 9 These are old ideas. They're 1960 ideas. We have to look ahead. 10 11 We've heard all of the presentations about 12 the benefits of natural gas. And I do really think 13 it's a hypocrisy for the Burrard thermal to being 14 shut down. All the people in the Lower Mainland, 15 they heat their houses with natural gas, and I 16 don't think there was any purpose in shutting it 17 down because it wasn't clean or green. There is another source of energy, I think 18 19 down the road we are going to be using it, and 20 maybe natural gas will last another 100 to 21 200 years, but Thorium, if anybody's had a chance 22 to investigate that, I think that is going to be 23 the fuel of the future. Well, the sun is the -- I mean, if we don't have a sun, that is our future, 24

but I think that one of the ones that we can be

2.5

1 looking at is Thorium.

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So flooding in the river valley is neither green nor clean. This is the Attache slide. And when that happened, that wasn't predicted, and nobody knew that that could happened. It was an unusually wet spring in 1973 and blocked the river valley for about ten years -- or for -- no, for ten hours. That wasn't the important thing. It was that it slid.

This one here, this is a quote from page 9 of the September 2009 Klohn Crippen Berger and SNC11 report produced for BC Hydro. And I'm just going to iterate this because I think it really does say it. The uncertainties in predicting both the extent and rate of shoreline impacts leads to the proposal to adopt an observational approach for periodically reviewing and updating the reservoir impact lines after, after, the reservoir has been filled.

I think, Mr. Chairman, that is a show-stopper; yet, things have carried on since then, and we are here today. That statement is complemented by a report I just accidentally found, and I make reference to it. It is in the package I submitted, commissioned by -- in 1991 by the

1	Honourable Jack Weisgerber. It's called Quartenary
2	Geology and Land Forms of the Eastern Peace Region
3	of British Columbia by N.R. Catto. And there were
4	six very strong cautionary comments in there, and
5	I'll just highlight the one. They're all in this
6	document called "Public Safety" that I included.
7	Number 5:
8	
9	"Thus, all of the major
10	terrain slops present in the
11	eastern Peace River region are
12	subject to slope failure. Extreme
13	caution should, therefore, be
14	observed in any effort to exploit
15	or utilize river valley slopes."
16	
17	And the Thurber report, I went through that,
18	and they showed that there was at least 60 of these
19	events that they can right now observe along the
20	river. Very important.
21	The most recent stuff is right on the axis of
22	the dam, and I can be corrected if I'm wrong, but I
23	have here a photograph that shows that there was a
24	slump of the shales.
25	Now, before I go into the shales, I'll just

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It's called montmorillonite clays. And I'm quite interested in that because I'm a farmer. There's some very interesting characteristics of montmorillonite clay; is when it gets wet, it gets very slippery, it expands. That's why basements sometimes collapse in this area. And when you get stuck, you really get stuck, and it sticks to everything. And there's a whole bunch of reasons for it, but this is named after a region in France, and it's a very unique clay, and that's what we have here within that sedimentary basin along the Peace River valley.

And I think we really should be concerned about that. I have not found anything in the report by Thurber, and I didn't -- maybe there's some now with BC Hydro's current efforts, but when I did go through the notes on the Attache slide and the Peace River Bridge collapse, there was no reference. They have -- they described the soils and the substrate in very technical terms, but they never used that word. It's a very, very unusual word, but it is I think paramount to what's going on in the valley, and I don't think that it's been recognized by the proponent to the degree that it

1	should be.
2	Anyhow, the other is right underneath this.
3	This is a sedimentary basin. And they 'oops
4	it overlays these Shaftesbury shales. And right on
5	the main axis of the dam site, there is a slump
6	right on the axis. It covers the added tunnel that
7	Hydro has been using to investigate it. I think
8	that, coupled with the report by the professional
9	engineers and geoscientists of the province of
10	British Columbia, they examine the 1957 Peace River
11	Bridge collapse. And I'll just quote this one
12	section.
13	
14	"Later, investigations found
15	the bridge failed due to a
16	landslide in the shale bedrock
17	beneath the bridge."
18	
19	'57 was a very high rainfall. And we can
20	probably expect a few more of those coming down the
21	road.
22	Anyhow, this I'll just quickly get through
23	this. This is a Wintergrin (phonetic) this is
24	when the clouds started over the valley. That went
25	Wintergrin, the Swedish industrialist, went all

2.5

the way to back to Prince George with his charter that he received to log and mine and build roads and build -- dam rivers and build river roads.

It was Bennett who actually showed a lot of foresight, I think, in 1961, or courage. And so we have ended up with W.A.C. Bennett and the Peace Canyon, which you know rightly or wrongly, that's what we're faced with today. And it works for British Columbia. But I think those things are 55 years old. So how are we going to equate a project 100 years for Site C when the life-span of the W.A.C. Bennett -- the generator is -- well, I don't know. I presume it'll be extinguished within another 55 years or so.

Anyhow, the Peace Canyon dam '76, I think this is interesting to note that Hydro cautioned the citizens in the Mackenzie Inn here in town that brownouts and blackouts will occur if Site C were not built. We're 33 years later; it hasn't happened.

Then we went through '82 and '92 with BCUC, they were both turned down, and I think it was really interesting to note in 1992, after revisiting Site C, work was suspended and as opportunities for demand-side management and

1 gas-fired generation were identified as potentially 2 better ways to meet demand. I think that really 3 complements some of the speakers of today. This was a W.A.C Bennett dam. 4 Remember, that 5 is built into bedrock. And that's very important. 6 This is a recreation opportunity on Williston 7 Lake. A friend of mine built that for a German client, and when he built it, it was one-third of a 8 9 mile away from the shoreline. And had he asked the client -- he said, "You're sure this is okay?" And 10 11 he said, "Sure." So this is a 2008 photo. I think 12 it demonstrates that anybody who talks about 13 recreational capabilities in a reservoir is very, 14 very shortsighted. 15 This is the genesis of our community here. 16 This is what the original lake looked like, Lake 17 It was some -- I think it's about Peace. 10,000 years ago. This lake finally was 18 19 diminished. Anyhow, those lines, the central line 20 is the Peace River valley with the very fine 21 food-producing lands we have, as Karen Goodings 22 already mentioned. 23 That curiously actually outlines -- is the 24 outline of the Agricultural Land Reserve for this area. And those other lines show the outline of 2.5

1	the Beringia Corridor. We are right in the centre
2	where the two ice sheets came together. There was
3	Laurentide, one from
4	THE CHAIRMAN: Can I get you to slow down a
5	little bit. I think the transcription may be a
6	little bit
7	MR. HADLAND: I apologize. I will slow
8	down.
9	Yeah. So there was two ice sheets. One came
10	in from the east, the Laurentide, and the other one
11	came from the Rocky Mountains called the
12	Cordilleran. This is a current conjecture of our
13	leading scientists.
14	And so the centre there is a Beringia
15	Corridor. And they thought that Early Man, the
16	Clovis culture, travelled up and down that corridor
17	at that time. I'm not sure that that is absolutely
18	true, but that's the best guess at the time.
19	That's why we have the Charlie Lake Cave. And this
20	is some of the stone tools.
21	By the way, I find those in my fields. I
22	have quite a collection of that. I just delivered
23	1,000 of them down to SFU for a friend of mine.
24	This captured quite a bit of the colonial
25	history of the area. And I think it's very worthy

1	to note that this was a gateway to British
2	Columbia. The gateway to British Columbia. And it
3	began with the Rocky Mountain Fort, 1794, and that
4	was built by Stewart at the time. And that was
5	followed in 1805 by Simon Fraser who built what was
6	now Hudson's Hope. It was across the river, the
7	Peace River, and neither one of these two sites are
8	even recognized in any mapping that I have found.
9	I looked at the Rocky Mountain Fort in 1986,
10	it was well, you could find the lines where the
11	palisade boundaries were. Everything was there. I
12	went back last year and I really had to look for
13	it. It isn't recognized or I don't know if it
14	was it'd never been visited, not documented.
15	And I think the very, very neat thing about
16	this is I went back to Thurber report, and this is
17	a statement here:
18	
19	"We found the remains of the
20	Rocky Mountain Fort, one of the
21	most important historical sites in
22	the province. It contains the
23	remains of the oldest European
24	settlement on the mainland of
25	British Columbia."

2.5

Very big deal. It should be a national historic site. And it's ignored. And I think the proponent really has not highlighted this in any extent at all. And I think it's not mitigable. I just don't see how you can cover that fort. And the other one, the Rocky Mountain portage fort.

"The Prophecy of the Swan" covers it off fairly well. Excellent read. I did provide you with a couple of copies. Probably haven't had the chance to get near it.

And just to note that this was a gateway.

Mackenzie came through here. John Finlay. David

Thompson, he was a stature of Lewis and Clark in
the States. I think they came through in 1806. He
came through here in 1804. George Simpson, the
factor for Hudson Bay. John Stewart. And James

Murray Yale isn't even recognized. He was the
factor for Fort Langley for most of his working

life. He was here in 1820 to 1821. And then after
that, of course, there was the massacre at Fort

Dieppe and that and the fur trade left the area.

Why are these not being recognized? I just think that we are missing something.

At Simon Fraser, the curator of the museum

1	showed me she has a fireplace from Rocky
2	Mountain Fort, languishing on the shelves there,
3	and she said, "I would just love to rebuild this
4	because it's all catalogued, I can do that."
5	I'll quickly go through. I'm sure I'm
6	running out of time.
7	In 1996, the Peace River was recognized as a
8	heritage river. Why is this being dismissed?
9	And then the other one that I'll just
10	here's the palisade boundaries for Rocky Mountain
11	Fort.
12	The D.A. Thomas, it's been said that the
13	paddlewheel era on the Peace River could be equated
14	to what happened on the Mississippi. I don't know
15	if that's true or not, but there were a lot of
16	paddle wheelers; it was from 1903 to 1953.
17	We are the stopping spots and provisioning
18	sites. I don't think that one's been touched at
19	all. So that, again, I don't see how that's
20	mitigable.
21	A quick thing about agriculture. And in
22	front of us here, right in front of Laurel is
23	probably the largest potato I've ever seen. And
24	that was one of many. This was grown organically
25	in the Peace River valley near Bear Flats. It

1	weighs 4 pounds. That, you cannot duplicate. You
2	cannot take that soil and haul it up on top and try
3	and grow them up there because it's all to do
4	it's a capability is a combination of the
5	climate and the soil.
6	We will lose a lot of prime agricultural
7	land. That's been covered all off.
8	There was a 2010 UBC-endorsed resolution
9	talking about preserving farmland for future
10	generations. And I think that's what I hear the
11	people here saying today.
12	It was Cyril Shellford (phonetic), he said
13	well, before I get to that I like this quote.
14	This is from Daniel Webster:
15	
16	"Never forget that
17	cultivation of the earth is the
18	most important labour of man. When
19	tillage begins, other arts follow.
20	The farmers, therefore, are the
21	founders of civilization."
22	
23	And of course today, in the era of
24	supermarkets and the fast food stuff, we lose that.
25	And agriculture is a harsh business. It's hard to

1	produce that food for the people. And when it's in
2	the form of the supermarket, they wouldn't even
3	recognize where it came from.
4	So, anyway, I think that's a wonderful quote.
5	This is in 1976, my friend was producing
6	potatoes. That's a lower flat on the Peace River
7	valley in that
8	THE CHAIRMAN: Can I encourage you to wrap
9	up shortly.
10	MR. LOCHER: Oh, yes, sir. Thank you,
11	sir, I'll do that.
12	Anyhow, today, I'm just going to one thing
13	from Cyril Shellford, he was a former Minister of
14	Agriculture, and he said:
15	
16	"Very few people, and no
17	lawyers, recognize that when you
18	force a farmer to relocate, you
19	take into account you're buying a
20	piece of a man's life. It's not
21	like the city where no one has real
22	roots to the soil."
23	
24	This next slide shows the market gardening,
25	organic, again, right from cantaloupe, cucumbers,

1	corn, the whole bit, anything can grow on there.
2	Beautiful soil. Pliable soil.
3	This shows the land we're going to lose,
4	high-capability agricultural land. It's,
5	approximately I think the whole amount is a
6	little over 11,000 acres according to I think we
7	got those numbers from Thurber.
8	And let's see. Oh, one last thing, if I just
9	may, Mr. Chairman. The economics. I think this is
10	a real problem here. Now, right now, if I
11	understand it correctly and I got this
12	information from Charles Reid. He made a
13	presentation to the Chamber of Commerce,
14	Fort St. John, in June of this year. And I quizzed
15	him. And he let us know that we have \$50 billion,
16	we, as ratepayers, owing to the independent power
17	producers. I'd sure like to know how much energy
18	that they are producing for our province.
19	The normal debt was 15.5, and then you got
20	that crazy 4.5 deferred debt under that crazy
21	little Act that was put in place, that's
22	\$70 billion. We, collectively, as the people of
23	British Columbia owe 70 billion not million
24	billion. And then to top it all off, he admitted
25	and there was a large group there, so they heard

1	
	it he admitted that the amount that they
2	contribute to the provincial budget, which is about
3	a half a billion, is borrowed money. We cannot run
4	our province like that. I don't think we can run
5	our households like that. It won't work. It
6	doesn't work.
7	Anyhow, Mr. Chairman, I thank you for your
8	patience. I know I did run a little bit longer. I
9	think this last slide, "There is nothing as
10	powerful as truth", really, is where we are at
11	today. And I have full confidence in your
12	deliberations.
13	In summary, it needs to be recognized that
14	the Site C proposal represents potentially the
15	economic, environmental disaster of BC's 21st
16	century.
17	Thank you, Mr. Chairman and panels.
18	THE CHAIRMAN: Thank you, Mr. Hadland.
19	You noted at one point, as have several
20	others, that various political figures have made
21	comments about the inevitability of Site C and so
22	on, and I just want to assure you that if these
23	three Panel members believe that, we wouldn't be
24	here.
25	Thank you.

1	MR.	HADLAND:	I believe that, too.
2		Thank yo	u.
3	THE	CHAIRMAN:	Are there any questions that
4		people wish to	raise of Mr. Hadland?
5		In that	case I see a person. Could you
6		identify yours	elf, please.
7	MR.	DIRKS:	Yes. I'm Tobin Dirks,
8		D-i-r-k-s, and	I'm a farmer and a local involved
9		in the local a	griculture industry. And my question
10		is more for BC	Hydro, but it's to do with
11		agriculture ar	d some of the points that Mr. Hadland
12		brought up.	
13		And my o	questions is, being that this is the
14		only area on -	- with class 1 land in this region,
15		and it's isola	ted from all the other areas of
16		class 1 land,	has there been any thought or any
17		value put on t	he fact that if there is diseases
18		that are found	in all the other class 1 producing
19		land in Britis	h Columbia, or in other parts of the
20		world, this la	nd is isolated and would not be
21		affected ye	ah, affected, at first, or it can be
22		kept isolated,	and, therefore, can produce crops
23		even when ther	e is no potential in other parts.
24		And I'm just w	ondering what the long-term
25		significance c	f that might be.

1	THE	CHAIRMAN: I	s part of your question the
2		value of isolation for	agriculture?
3	MR.	DIRKS: Y	eah.
4	THE	CHAIRMAN: A	nd that is for weed control
5		and that sort of thing;	is that what you're after?
6	MR.	DIRKS: Y	eah, weed and diseases and
7		insects more so, yeah.	
8	THE	CHAIRMAN: D	oes Hydro care to respond to
9		that?	
10		I note that we ar	e going to have a topical
11		session on agricultural	issues and we may get into
12		some of this more deepl	y, but if Hydro has a
13		response to that right	now, it would be nice.
14	MS.	JACKSON: Y	es, I would direct the
15		member of the sorry,	I would direct you to
16		table 20.17 of our EIS	where the agricultural land
17		lost to the project is	put into the context of the
18		land remaining within b	oth the valley and the
19		region, as well as with	in the province, so that
20		would give some indicat	ion of the relevant area of
21		land within this area i	n context with areas that
22		are removed from either	the valley, the region, or
23		the province.	
24	MR.	HADLAND: M	r. Chairman, may I add a
25		comment to that? A ver	y good point brought up by

1	Tobin, I hadn't addressed it, but the Pemberton
2	river valley was an area were they produced
3	pedigreed potatoes for many, many years, because it
4	was isolated, did not have any disease vectors or
5	anything happening that would cause contamination
6	of the potatoes.
7	They somehow got a golden nematode introduced
8	there and they lost the ability to grow the they
9	weren't called "pedigree", they had another word
10	for it, but they were the high-end potatoes for
11	seed right across Canada. Our valley does have
12	that potential still today.
13	THE CHAIRMAN: I recall that one of the
14	virtues of the Peace that I heard of back in the
15	'60s was that it was a great place to grow grass
16	seed because there were relatively few weeds
17	around; is that correct?
18	MR. HADLAND: Well, that's true, that's one
19	of my specialties, is growing grass seeds. And we
20	do have a I wouldn't call it pristine anymore,
21	but it is a very good place to grow grass seed.
22	It's the second largest producer of grass seed in
23	North America, the Peace River region. The Peace
24	River region is a wonderful place to be.
25	THE CHAIRMAN: Thank you, sir.

1	MR.	HADLAND:	You bet.
2	THE	CHAIRMAN:	Thank you, Mrs. Hadland.
3		Our next speak	er is Monsieur Guy Lahaye, or
4		is it Mr. Guy Lahaye	, from the North Peace Rod and
5		Gun Club.	
6			
7	Pres	sentation by Guy Lahaye	, North Peace Road and Gun
8		Club:	
9	MR.	LAHAYE:	Good evening, and thank you
10		for allowing me to p	resent on behalf of the North
11		Peace Rod and Gun Cl	ub.
12		My name is Guy	Lahaye. I am the president of
13		the club. And, esse	ntially, I'd like to present
14		the positioning of t	he club in regards to Site C.
15		The North Peac	e Rod and Gun Club is located
16		in Charity Lake on t	he outskirts of Fort St. John.
17		The North Peace Rod	and Gun Club represents over
18		800 local members, (indiscernible) and urban, and
19		as an interested par	ty that has participated in the
20		pre-hearing phase of	the review.
21		The club was f	ounded in 1945 and, as such,
22		has been a dynamic i	nfluence in the teaching,
23		preservation, and pr	omotion of shooting, hunting,
24		fishing, as well as	the proper management of fish
25		and wildlife for the	purposes of maintaining

1	quality recreational activities and opportunities
2	in the North Peace.
3	The club has throughout its history has
4	regionally dedicated itself to participating in all
5	kind of projects such as burns, wildlife
6	transplants, and studies leading to the enhancement
7	of wildlife populations, and enhancement of
8	habitat.
9	In regards to Site C, the North Peace Rod and
10	Gun Club is not taking a position for or against
11	the building of the dam. We don't want to get
12	involved in that discussion necessarily.
13	However, should the project proceed, then
14	this Panel needs to recognize the impact Site C
15	will have on recreational opportunities in the
16	North Peace, and, specifically, in the
17	Fort St. John area.
18	While the club is concerned about species at
19	risk, its primary focus is on the supply of
20	wildlife to maintain quality, recreational
21	activities, and access to recreational sites.
22	The North Peace Rod and Gun Club believes the
23	following:
24	That the unique climate of the Peace River
25	valley is critical to the abundance and survival of

1 moose, deer, and elk and other species. 2 That, periodically, severe winter weather 3 restricts these species to the areas modified by valley climate. In other words, these are -- this 4 5 area, the valley, is an important wintering ground. 6 The club believes that the micro climate 7 changes since the building of the W.A.C. Bennett dam have been detrimental to wildlife populations. 8 9 Hunting activity depends on the surplus of animals produced over the basic populations, and a number 10 11 of human activities impair the production of that 12 surplus. 13 Activities that can have an impact on surplus 14 animals and hunting activity are: access 15 development, traffic levels, vehicle mortality, 16 logging activity, and general high levels of human 17 activity. 18 Specifically, the construction phase of 19 Site C will bring a significantly higher level of 20 activity and a higher demand for recreational 21 activities. 22 During this phase, access to the North Peace 23 Rod and Gun Club, itself, via Road 271 will also be 24 impacted due to club proximity to the Wuthrich

Quarry. Should the project go ahead, this road

1 needs to be upgraded to allow for significant increase in truck traffic. 2 3 The club believes that management unit 732, which contains the Del Rio block and the south bank 4 5 of the Peace River from Hudson's Hope to Taylor is 6 the most critical area for maintaining wildlife 7 populations and hunting activity in the Fort St. John area. 8 9 Fishing activity depends on a surplus of fish produced over basic populations and these are also 10 11 affected by access and numbers of fisher-persons. 12 We believe that fishing opportunities 13 upstream of Hudson's Hope have been dramatically 14 impaired by the unstable conditions on the 15 Williston reservoir and poor species choice and 16 production in the Williston and dinosaur impoundments. 17 18 Hunting opportunities have been dramatically 19 lost in the Williston area from the huge loss of 20 habitat and populations, persistent sloughing of 21 banks, dust effects on animal life expectancy from 22 tooth wear and palatability. 23 The club believes that mitigation and 24 compensation programs for values lost due to the 2.5 W.A.C Bennett and Peace Canyon projects have been

1 too late, too little, and mostly ineffective in 2 compensating for loss of recreational activity. The North Peace Rod and Gun Club exists to protect 3 fish and wildlife resources, to maintain and 4 5 enhance recreational activities from healthy 6 populations. 7 We are disappointed in the mitigation and 8 compensation actions taken for the impacts of 9 previous BC Hydro developments in the Peace. 10 Furthermore, we see little in the Site C 11 environmental assessment and undertakings by 12 BC Hydro that convince us that the impact of the 13 Site C proposal will not significantly impact wildlife and fish and the recreational 14 15 opportunities based on them. 16 Indeed, it has been suggested that it will be 17 at least six years after the completion of the dam 18 before access to the reservoir and surrounding 19 areas is available, if safe at all. That puts us 20 to the year 2030. 21 Of particular concern is the lack of regional 22 perspective and assessment in the environmental 23 impact statement for all species that are hunted in 24 British Columbia. We can only conclude that the

proponent deliberately downplayed the potential

1 impact assessment by a very narrow and biologically 2 unsupportable study and assessment area. 3 Based on the knowledge and understanding of our members, and without evidence to the contrary, 4 5 the Site C proposal will have significant impact on 6 fish and wildlife, our recreation and our quality 7 of life. We suggest that the Panel might find that 8 9 BC Hydro has provided insufficient information and 10 undertakings to reach any other conclusion. 11 Should the project be approved, the North 12 Peace Rod and Gun Club feel strongly that BC Hydro 13 must revisit and provide a much more comprehensive impact assessment related to wildlife. 14 15 BC Hydro must also be held responsible and 16 accountable for mitigating the negative impact of 17 Site C on fish and wildlife as well as regional hunting, fishing, and other recreational 18 19 opportunities. 20 BC Hydro must provide the necessary ongoing 21 compensation for comprehensive sign space, fish and 22 wildlife management in order to protect fish and 23 wildlife resources, and to ensure the quality of 24 life and sustainability of recreational

opportunities in the North Peace, which the members

1		and supporters of the	North Peace Rod and Gun Club
2		have so passionately w	worked to preserve and enhance
3		over the many years.	
4	THE (CHAIRMAN:	Thank you.
5		I'm sure there a	are questions on this. I'd
6		like to start with Mad	dam Beaudet.
7	MS. I	BEAUDET:	Thank you, Mr. Chairman.
8		I'd like to refe	er to your written submission.
9		On page 5, you talk ak	oout viable long-term
10		cost-effective options	s to mitigate the loss of
11		important winter habit	tats that are required. And I
12		was wondering if you h	nave any suggestion for the
13		Panel in terms of mit:	igation that you would like to
14		see implemented?	
15	MR. I	LAHAYE:	You're referring to the
16		technical paper that w	we have submitted?
17	MS. I	BEAUDET:	Yes.
18	MR. I	LAHAYE:	Okay. I was not going to
19		speak to the technical	l paper at this time because
20		we have a presentation	n on the 14th or 15th and
21		would be presenting ar	nd answering any questions at
22		that time.	
23	MS. I	BEAUDET:	Okay.
24	MR. I	LAHAYE:	And then we can get into it
25		in detail then. Are t	there any other questions that

1		you might have?	
2	MS. B	EAUDET:	No, I think I wasn't under
3		the impression t	hat this was going to be prepared
4		later, but it wo	ould be good, and in terms of your
5		preparation, ins	tead of mentioning that you would
6		like to see cert	ain options for mitigation, that
7		you give further	thought and maybe come with some
8		concrete suggest	tions when you do that presentation,
9		please.	
10	MR. L	AHAYE:	So you would like to see
11		something concre	ete on an if-the-project-is-approved
12		basis; is that o	correct?
13	MS. B	EAUDET:	Yes.
14	MR. L	AHAYE:	I think we can manage that.
15	MS. B	EAUDET:	The other point I'd also like
16		to make is with	the BC Hydro referring to the
17		letter of Decemb	per 3rd, when you are talking about
18		response to this	s technical report of Dr. Naji
19		(phonetic). I j	ust want to check with you. You
20		said that you ha	ve now the population density of
21		harvested specie	es, and it would be good if we get
22		them also before	e that presentation so that we can
23		be able to compa	re. Please.
24	SPEAK	ER:	I think the reference is to
25		the data with re	espect to population estimates of

-1	
1	wildlife that we told you that we had now in that
2	letter. We were intending to provide that with the
3	package on December 20th. There's probably no
4	reason we couldn't post that sooner, if that was
5	helpful to the Panel. We would do that.
6	MS. BEAUDET: Thank you.
7	THE CHAIRMAN: I had one question.
8	We have heard from Treaty 8 and Saulteau that
9	they're much concerned about the disappearance of
10	game and the effect of the project on game
11	populations and so on.
12	It seems to me you're probably both after the
13	same animals. Is there a conflict between the
14	North Peace Rod and Gun Club and Treaty rights?
15	MR. LAHAYE: Not necessarily. I don't see
16	a conflict. Our focus is on recreational
17	opportunities. Their focus may be on more
18	viability of populations in terms of that and
19	who has controls and has access over those
20	populations.
21	Ours is looking at it in terms of hunting,
22	fishing, recreational opportunities that are
23	available in the valley in this particular case,
24	and the loss of those. And if it should if the
25	project should be approved, then what is BC Hydro

1		going to do in order to compensate the people of
2		this area for basically putting up with this
3		disruption in the lives of the people of the area,
4		and in the equality of life.
5	MR. T	HE CHAIRMAN: No, I understand that point,
6		but what I'm after is there seems to me to be a
7		conflict between Treaty rights to hunt and fish as
8		formerly, as the Treaty says, and the desire of
9		your members to also participate in the mortality
10		of ungulates and fish. Is this a problem?
11	MR. L	AHAYE: Not the way I see it. If we
12		look at it strictly in hunting and fishing, one
13		aspect of it, it has to do with subsistence. The
14		other aspect of it has to do with basically
15		recreation. Historically, hunting and fishing are
16		recreational activities.
17		Now, should populations decline to a point
18		and this is where we get into the grey area
19		should wildlife populations decline to a point
20		where hunting is no longer feasible because the
21		population is reduced remember that hunting,
22		basically, according to our definition and the
23		wildlife ranch, is the harvesting of surplus
24		populations. Right? And hunting is also used
25		hunting and fishing are used as a means of

1		basically balancing p	opulations.
2	THE C	CHAIRMAN:	I note that on the coast with
3		respect to salmon, fo	er example, there is a
4		hierarchy of use. An	d the subsistence uses and
5		ceremonial uses of Fi	rst Nations take precedence
6		over the harvest by r	ecreational users. Is that a
7		pattern for the Peace	?
8	MR. I	LAHAYE:	Not up here. Not the way it
9		is down there, that's	for sure.
10	THE C	CHAIRMAN:	Finally, are there
11		opportunities for spo	rtsmen recreational users to
12		work to go with First	Nations to enhance wildlife
13		populations? Do you	do such things?
14	MR. I	LAHAYE:	I think part of the mandate
15		of our club is to do	just what you'd mentioned
16		here, is to and th	e history of the club itself
17		since 1945 is filled	with all kinds of wildlife
18		enhancement and habit	at projects.
19	THE C	CHAIRMAN:	I'm thinking particularly of
20		working with your nei	ghbours in the First Nations.
21	MR. I	LAHAYE:	Well, right now, the way it
22		stands, a lot of thes	e projects have to be approved
23		by First Nations acco	ording to the agreements that
24		were signed recently	in the last few years.
25	THE C	CHAIRMAN:	Thank you very much.

1	Are there other comments or questions?
2	That is a question? Yes, please.
3	MR. HENDRIKS: Thank you, Mr. Lahaye. It's
4	Rick Hendriks from Treaty 8 Tribal Association. I
5	very much enjoyed your presentation.
6	I wondered if you could elaborate I'm not
7	a fisherman, and I don't know how many people here
8	are, but how is the experience, the preparation,
9	the access, the equipment, how is that different
10	between when you decide to go out and fish on the
11	river versus when you might decide to go fish on
12	one of the reservoirs?
13	MR. LAHAYE: I have limited experience on
14	fishing with the reservoirs. I think I've fished
15	on the reservoirs maybe a half a dozen times since
16	1980s since I moved to the Peace country.
17	There's a major difference, however, in how
18	you fish on a reservoir as opposed to fishing on a
19	river. Access on a river is a lot easier in many
20	cases. Access on a reservoir, basically finding a
21	spot to park your boat, so to speak, and finding
22	the right depth of water, et cetera, et cetera, are
23	all major factors.
24	Hunting on the river is a lot more enjoyable
25	as opposed to hunting on the reservoir. I'm not a

1		fishing-on-the-reservo	ir fan at all.
2	THE	CHAIRMAN:	Thank you.
3	MR.	HENDRIKS:	Thank you, Mr. Lahaye.
4	THE	CHAIRMAN:	Are there any other questions
5		of Mr. Lahaye?	
6		In which case, t	hank you very much, sir.
7	MR.	LAHAYE:	Thank you, sir.
8	THE	CHAIRMAN:	The next presentation is from
9		Renata King from the N	orthern Development
10		Initiative Trust.	
11			
12	Pres	sentation by Renata King,	Northern Development
13		Initiative Trust	
14	MS.	KING:	Good evening. My name is
15		Renata King and I'm th	e director of business
16		development with North	ern Development Initiative
17		Trust. Thank you for	the opportunity to introduce
18		you to Northern Develo	pment.
19		Some of the prog	rams and the type of
20		community and business	programs that we offer, the
21		work that we are doing	with major industry,
22		including BC Hydro, an	d in anticipation of the
23		major industrial proje	cts that are happening across
24		the region, including	Site C.
25		Northern Develop	ment is an economic

1	development corporation. We serve a large region,
2	70 percent of the footprint of British Columbia.
3	We work with businesses and local governments. We
4	work with 40 communities, 8 regional districts, one
5	regional municipality, and 88 First Nations. It's
6	a large territory to serve.
7	Our effort focuses on building a stronger
8	northern economy and also a stronger North Peace
9	economy.
10	There's got to be an easier way to do this.
11	Northern Developments support over the last
12	eight years has resulted in over 1,200 projects,
13	\$115 million of funding, and the important piece is
14	that 75 percent of our projects are in communities
15	under 5,000 people. Most of our communities in
16	north and central BC are under 5,000.
17	We work to build communities with a number of
18	programs. All the programs are community-led
19	projects that really do help build community. We
20	work with municipal governments, non-profits,
21	projects that help renovate community halls,
22	recreational facilities, regional airports,
23	including the Fort St. John Airport.
24	Our business programs help local
25	entrepreneurs benefit from major developments, help

1 them build capacity, help them become stronger 2 businesses so that they can contribute to the local 3 economy. Our understanding of the Site C project is 4 5 that it is a 7.9 billion-dollar project. 6 been six years of planning and assessment and 7 design contracts that some have been contracted locally in the area. 8 9 If the project gets approved, our understanding is that it's 3.2 billion to the 10 11 provincial gross domestic product, \$130 million 12 contribution to the regional GDP, 10,000 13 person-years of employment, approximately, 33,000 total jobs through all stages of development and 14 15 construction. But what it also does is it provides 16 an opportunity to build a local supply chain. 17 Building local business helps to build communities, 18 and this project, along with many other projects, 19 can help do that. 20 What Northern Development is hoping to do is 21 to seek every opportunity to create opportunities 22 for the local businesses in the area. 23 Some of the regional contracting 24 opportunities are listed here. There's a wide 2.5 variety of them. But it's important that

1 procurement is designed appropriately for the size 2 of the local community as well, both in scope and 3 in size. BC Hydro has indicated that they are 4 5 interested in right-sizing the opportunities for 6 small, medium, and large businesses and to be able 7 to procure supplies and services locally wherever 8 possible. 9 Northern Development is committed to making 10 sure that the businesses are ready for these 11 procurement opportunities and how to help develop 12 those businesses. 13 Starting in 2012, we met with quite a number 14 of industry players to find out what exactly needed 15 to be done to build out a supply chain and make 16 sure that, with these industrial projects, more 17 money stayed in the local economy. 18 One of the things that we were asked to do 19 was to help educate local businesses. So our 20 contractor supplier boot camp was designed with 21 industry participation. The curriculum was created 22 with industry. 23 We have delivered 19 boot camps since 2012:

two in Fort St. John, one with Treaty 8, one with

Energy Services BC, and the Economic Development

24

1 Commission, locally.

2.5

What we're trying to do is help businesses understand what the economic activity is in the region and what the opportunity is for them.

The other piece is to help businesses understand what the procurement process is. How do major businesses procure? This is not doing business on a handshake; this is doing business with large national organizations that have different processes.

And those businesses that are ready to take on the challenge and grow their business and be ready for these procurement opportunities, it's important for them to understand what steps they have to take to be ready.

One of the programs that we help businesses who have expressed an interest in moving forward and being ready for the supply chain work is our competitiveness consulting program. This program helps businesses build their systems, their certifications, their capabilities around operational efficiency. We help to offset 50 percent of the cost of third party consultants that they may need to use to improve their processes and systems up to a maximum of \$30,000

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per company. This program is \$500,000 annually and is fully subscribed by businesses across the north.

We designed the program so that northern businesses were not disadvantaged by being in the north. They have invested in their businesses, and when they need help, we wanted to make sure that they had the opportunity to get the resources that they needed; the right consultant on the right project.

Businesses that have taken advantage of this are all across the region. I'm actually going to see three tomorrow morning in Fort St. John who are prepared to move forward with some of their work. The consulting program helps with all kinds of capacity building for those businesses.

One of the local companies who has taken advantage of the consulting program is Twin Sister's Native Plant Nursery. It's a business that sees the opportunity to be involved in the industrial supply chain. They're a nursery that does native plants and working on reclamation for the industrial projects that are planned and underway in the region. It's a partnership of Saulteau and West Moberly First Nations, and they are looking at the opportunity and building out

2.5

those systems, that they need to be a very effective business, just one local example. This project is intended to create seven or eight new jobs as a result of the nursery.

One of the other programs that businesses have taken advantage of is the industrial industry expansion program. Financial institutions typically provide a certain amount of funding and then they get to the edge of risk and there's not always the full financing available to local businesses; particularly, when they're in a growth mode.

The industry expansion program allows businesses to access and leverage a loan guarantee from Northern Developments so that the financial institution will lend them the full project amount. And this is an example: Central Mountain Air is a business, flies in and out of Fort St. John regularly. They took advantage of the loan guarantee program to purchase some additional fleet so that they could expand their service to the north. They've got new routes, and that also brings in labour market into the region, brings workers in, and it continues to expand. So that's just one example of the program.

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There's also a -- the same program involves supply chain financing. Where a business starts to grow, they need to purchase materials or equipment inventory to respond to a large contract, which they may not be accustomed to. We also provide loan guarantees with the financial institutions to provide purchase order financing, and also receivables financing.

It's all about growing these businesses and helping them with their cash flow, and that's always the part that they'll stumble over, if they do not have enough cash to manage the project from beginning to end. And it's important that the industry make sure that they're paying on time to offer those contracts to smaller businesses.

The other request from industry was to help identify local companies in the region, local industrial businesses. This supply chain connecter was designed again in partnership and input from industry to help identify the resources that are available in north and central British Columbia.

This database was launched just over 90 days ago, and we launched it with 1,100 businesses that are all in central and northern British Columbia, all with an industrial focus.

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The database is in development; as I said,

90 days old. Our intent is to build it out to

represent 80 to 90 percent of the industrial

businesses in the regions. That represents about

3,200 businesses across northern BC.

The database has been very well received by industry. Many of them are already putting it on their desktops, making sure that they have access to it, that their prime contractors have it readily available, because there is a need to make sure that they're procuring locally wherever possible.

The database is searchable; it's searchable by community, it's searchable by sector, it's searchable by distance from a community. So if you were looking for an electrical contractor within 100 kilometers of Fort St. John, it would give you that radius search. Very user-friendly. And free to businesses to register. We built it with the intent of bringing industry and local contractors closer together.

This is an example of a profile for an individual business. What it really helps with smaller companies is that they have a professional web presence. They may be very capable of doing good work, but it's very difficult to find them if

1 they are not even visible on the internet. So this 2 platform allows them to look very professional, 3 have a profile that acts as a webpage for them if they don't have their own website, so it's 4 5 tremendously valuable to the smaller companies. 6 Companies in Taylor, companies in Chetwynd, 7 many companies even in Dawson Creek, all the industrial businesses are able to register on the 8 9 database. What we are really hoping to do is to ensure 10 11 that industry is as close to the local economy as 12 possible. Northern Development's entire focus is 13 about building that stronger north, and our intent is to work with suppliers across all industries. 14 15 This isn't just a Site C initiative, this is a 16 program and an offering, and the support that we 17 are providing to businesses is to help build out 18 the regional economies. It's about creating 19 opportunities for a really robust supply chain. 20 And when businesses are successful locally and when 21 they're strong, it also helps to build communities, 22 and that's what our entire focus is about. 23 Thank you very much. 24 THE CHAIRMAN: Thank you very much. 2.5 Mr. Mattison, you had a question.

1	MR.	. MATTISON: Thank y	ou, Ms. King, for this
2		update. I kind of lost track	of the Northern
3		Development Trust.	
4		I think one of your fir	st slides, you
5		mentioned \$115 million over e	ight years. Is that
6		money that's been flowed thro	ugh these programs
7		over that period of time?	
8	MS.	. KING: Yes.	
9	MR.	. MATTISON: And can	you just tell us what
10		the source of that funding is	?
11	MS.	. KING: The Tru	st was created with a
12		one-time endowment from the P	rovince of British
13		Columbia: \$185 million. The	Irust is sustainable
14		in that we only work from the	income stream from
15		the capital base.	
16		Our capital is still in	tact over eight years,
17		we have the same capital that	we began with, and we
18		manage all of our projects from	om the income stream
19		that our capital generates.	
20	MR.	. MATTISON: There i	s some I'm just
21		trying to recall here, there	is some authorizing
22		statue that created the Trust	; is that right? Or
23		is it	
24	MS.	. KING: Yes, it	was. It was created
25		by the province of BC.	

1	MR.	MATTISON:	Northern Development?
2	MS.	KING:	Northern Development Trust
3		Act.	
4	MR.	MATTISON:	Act?
5	MS.	KING:	Yes.
6	MR.	MATTISION:	Thank you. I need to refresh
7		my memory.	
8		Was it created	at the same time as the
9		Columbian Basin Trust	?
10	MS.	KING:	No, the Columbia Basin Trust
11		is entirely different	. We are not a Crown
12		corporation. We're a	rm's length from the
13		government. Columbia	basin is a Crown corporation,
14		a Provincial Crown co	rp.
15	MR.	MATTISON:	With different enabling
16		legislation?	
17	MS.	KING:	Absolutely.
18	MR.	MATTISON:	Okay. Thank you.
19	MS.	BEAUDET:	Thank you, Mr. Chairman.
20		I'd like to know	w if you have any statistics
21		on the projects in te	rms of tourism or outdoor
22		recreation in this are	ea. Is it a market that is
23		emerging or is it expa	anding compared to other
24		region than the Peace	region?
25	MS.	KING:	Tourism isn't an area that I

1		specialize in; I'	m on the business development
2		side. Our progra	ms do support tourism initiatives
3		on the community	capacity-building, recreation
4		facilities that w	e will help fund. But in terms of
5		answering that qu	estion, I really can't answer it.
6		I'm sorry.	
7	MS.	BEAUDET:	Thank you.
8	THE	CHAIRMAN:	Are there any more questions
9		for Ms. King?	
10		In which ca	se, we thank you very much.
11	MS.	KING:	Thank you very much for the
12		opportunity.	
13	THE	CHAIRMAN:	Yes.
14	MS.	GOODINGS:	Thank you.
15	THE	CHAIRMAN:	The microphone will actually
16		come down a littl	e by the
17	MS.	GOODINGS:	It's okay. This won't take
18		long.	
19		So it's Kar	en Goodings, G-o-o-d-i-n-g-s. And
20		my questions is r	elative to the Trust that was used
21		to set up the NDI	. And I believe that Trust was
22		set up when BC Ra	il was leased to CN, and I believe
23		that's how we got	the start with the it came
24		from the province	to kind of make us feel better
25		about the loss of	BC Rail.

1		I just wanted to clarify that because that's
2		were the money came from.
3	THE	CHAIRMAN: Questions?
4	MR.	HENDRIKS: Thank you, Ms. King, that was
5		very informative. Rick Hendriks from Treaty 8
6		Tribal Association.
7		I just wanted to ask you, you obviously have
8		a lot of contact with local businesses. In which
9		ways do you think, in your opinion, that they are
10		ready for Site C change, which is a large project,
11		and in which ways do you think there's still more
12		work to be done?
13	MS.	KING: Well, I think there's always
14		work to be done. There are mid-sized businesses,
15		there are large businesses that are certainly ready
16		to take on some of the procurement opportunities.
17		The smaller businesses do need help, which is the
18		reason why we created some of the programs, because
19		we wanted to make sure that even smaller
20		businesses, who could be subcontracted to mid-size
21		and larger companies, were prepared and had the
22		knowledge as to how to prepare for those
23		opportunities.
24		You don't have to be a big company to be
25		involved in these projects, because someone could

1	even get a contract outside the region, but they
2	need the local resources to actually make the
3	project happen. So those local businesses, if
4	they're prepared, there's no knowing where that
5	opportunity might come from to actually engage in a
6	contract.
7	MR. HENDRIKS: And you don't have to answer
8	this questions, or, Chair, you don't have to accept
9	it, but could you use more time? Could the
10	region's businesses use more time to prepare?
11	THE CHAIRMAN: We can always use more time.
12	These hearings could use more time. We could talk
13	from now until probably June without exhausting the
14	patience or interest of this community.
15	MS. KING: I think there were yes,
16	I'm sorry.
17	THE CHAIRMAN: Go ahead.
18	MS. KING: I think the reality is is
19	that there is so much industrial development
20	planned for the next, you know, 20 years that it
21	will constantly be a work-in-progress.
22	There are businesses that are just starting
23	up now, and they need the help. So, again, there's
24	a wide variety of capabilities across the north,
25	and I think there will always be work to be done.

1	I think I have some job security.
2	THE CHAIRMAN: Thank you, Mr. Hendriks. You
3	didn't ask the questions I thought you were going
4	to ask; which is, what is the participation of
5	First Nations-owned firms, or Métis-owned firms in
6	your database or in your clientele?
7	MS. KING: The database does actually
8	identify businesses can self-identify as First
9	Nations because industry has said that they would
10	like to know that if they are First Nation owned.
11	So that is a criteria that they can self-identify.
12	We are working on bringing more businesses
13	on. There's a representation of First Nations
14	businesses. We have been asked to do boot camps
15	specifically with First Nations communities. For
16	example, I was last year, I was in New Aiyansh,
17	in the Nass valley, doing specifically for that
18	community, doing a contractor/supplier boot camp.
19	The issues aren't very different. It's the
20	readiness that they need to have.
21	MR. CHAIRMAN: Thank you very much.
22	MS. KING: Thank you.
23	THE CHAIRMAN: Thank you, Mr. Hendriks.
24	Seeing no further questions, I would now turn
25	to Hydro for their response to everything they've

1	heard today.
2	
3	Response by BC Hydro:
4	MS. YURKOVICH: Thank you, Mr. Chair.
5	We've heard a lot today. I will do my best
6	to provide a brief summary and to reflect some of
7	the things that we have heard.
8	Obviously, some of the questions and subject
9	matters that have been raised will also be explored
10	in depth at the topic-specific sessions, and we
11	look forward to those discussions.
12	To begin, I want to just say and reiterate
13	that we do understand and have recognized that this
14	project has effects, and these effects will be most
15	profound for those who live in this place, and
16	we've heard from many of them today.
17	There is no question that Mr. and Mrs. Boon
18	will be directly and significantly impacted. I
19	recognize this. And I can imagine how difficult it
20	was for you to come and share with the Panel today,
21	and I would just like to thank you for doing so.
22	To Chiefs Logan, Willson, Lilly, Tsacoza, and
23	Davis, we appreciated their presentations, and I
24	look forward to meetings in their communities; in
25	particular, to hearing from the Elders, as Chief

1 Willson has suggested.

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Mr. Forest provided us with comments regarding the future of locally-produced food and his concerns about the impact of climate change. We note that the regional food self-reliance is addressed in section 20 of the EIS and, as the Chair noted, we will have a session tomorrow on atmospheric and we'll be covering off climate change then.

As we advised during our afternoon session, we will be responding to the report submitted by the David Suzuki Foundation by September 20th, and we have heard and appreciate Madam Beaudet's comments with respect to our response on cumulative effects and we will work hard to ensure that we address her questions in our response.

Mrs. London provided us -- we heard 12 concerns that she raised today and has shared with us previously. We do acknowledge her concerns and respect that this project will have impact on her family's land and her ability to enjoy her family property.

I would like to comment briefly on the reference to bears and the 2008 and 2009 technical advisory committee process. The purpose of that

1 process was to identify the need for baseline field 2 studies; for example, when habitat use information 3 was needed. In section 14.3 of the EIS, bears are 4 included in the assessment of the large carnivore 5 key indicator species group. Several wildlife 6 management measures proposed are also relevant to 7 bears, and these include measures to avoid known 8 wildlife features during construction such as dens, 9 and measures to reduce human-bear conflicts. We'll be providing additional information --10 11 oh, I would also note that there's -- additional 12 information about bears was provided to the Joint 13 Review Panel during your questions that you pose to 14 us. 15 We do anticipate that a detailed discussion 16 on wildlife, when we have our wildlife experts, 17 will be held on January 15th and 16th. 18 Mr. Hochstein, representing the Independent 19 Contractors and Business Association, we heard him 20 speak about the significant economic benefits of 21 the project. He noted that his members can make an

identified that his members are partnering with

important contribution to ensuring that

environmentally-responsible way. He also

construction is undertaken in an

22

23

24

First Nations around the province to create economic activity.

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Ms. Goodings spoke to the importance of growing food locally and the role of the Peace region in doing so. She also talked about the value of fishing and recreational opportunities that may be impacted.

And Mr. Locher made comments about the impacts to areas B and C and the district of Hudson's Hope. I think we heard his request was that if the project is advanced, that agreements with communities be completed before the project proceeds. We would certainly support that.

Mr. and Mrs. Hadland, we heard a presentation that covered a variety of issues, including, again, the importance of the river alternatives, including natural gas and other future alternatives. I would note that -- I did want to comment just on the presentation. He noted the comment from the Klohn Crippen report on reservoir impacts. We did recognize that there is some uncertainty with how rock performs, and that's why we undertook a complete geotechnical investigation of the entire reservoir area. That work was undertaken by BGC Engineering and will be discussed at the

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topic-session on January 14th. But he is right.

We also proposed ongoing monitoring to be sure that those predictions are accurate once the reservoir has been filled. So we will do both prior, and would anticipate doing it during, to look at those geotechnical considerations again following reservoir filling.

Mr. Lahaye, president of North Peace Rod and Gun Club spoke about the importance, in particular, of the abundance of wildlife and having access to good recreations opportunities. He made some notes about the impacts during construction in addition to having access to wildlife, also having access to their club. I do note that we have proposed to provide upgrades to the 271 road.

As well, there was a comment about use of the reservoir following filling. I just would like to clarify that our EIS indicates that the boat launches that we have proposed would be opened within one year, and the reservoir would be fully available at the end of the second — it would be a staged approach subject to ensuring public safety.

Finally, I think we take from Ms. King's presentation from the Northern Development Initiatives Trust, it was good for us to understand

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1		more fully their role	in facilitating the economic
2		development in their	very large service area, which
3		is covering 70 percent	t of the province. And I
4		think it was helpful	to hear about those programs
5		that are in place that	t will help ensure that
6		northern contractors a	and businesses are able to
7		participate fully in	the Site C project.
8		I recognize, Mr	. Chair, that that's a very
9		high-level summary; we	e have taken extensive notes,
10		but I think that will	conclude my comments, and I
11		appreciate the opport	unity to provide a summary.
12	THE C	HAIRMAN:	Thank you very much,
13		Ms. Yurkovich.	
14		And that conclud	des our session for the day
15		unless a gentleman	has a final comment.
16	MR. M	URRAY:	Can I make one comment about
17		Mike Murray one	you didn't address
18	THE C	HAIRMAN:	Sorry, could you say your
19		name again into the ma	ic.
20	MR. M	URRAY:	Mike Murray, M-u-r-r-a-y.
21	THE C	HAIRMAN:	Thank you.
22	MR. M	URRAY:	One that you didn't address
23		in Arthur Hadland's co	omments, and I see this all
24		over the press, that	this is a 100-year project.
25		We get 100 years of en	nergy out of this.

1	We sit there and we look at the W.A.C.
2	Bennett dam that's 55 years old. Does that mean
3	that dam is going to last 155 years? Because
4	without that dam, none of these are any good. It's
5	like it's all reliant on that big puddle upstream.
6	Can you answer that one for me, please?
7	Like, one of two things; it's either are we
8	building Site C insufficiently that it's only going
9	to last 100 years, or did we not
10	THE CHAIRMAN: I think we have the
11	questions. Do we have an answer?
12	Mr. Nunn, how long is it going to last?
13	MR. NUNN: Thank you.
14	We've been saying that the project will be in
15	operation for more than 100 years. And interesting
16	to note that there are about 250 dams in the world
17	over 100 years old. And in Britain, the average
18	age of dams is greater than 100 years.
19	MR. MURRAY: Are they of the same size and
20	scope as this dam and in the same kind of
21	condition? Because you will also remember not all
22	that distantly back with the sink holes that
23	happened in W.A.C. Bennett, that it almost failed,
24	or they thought it was going to, so then we
25	wouldn't be here now.

1	MR. N	UNN:		In the	technical n	memo on da	ım
2		safety, we	addressed t	the cond	itions at I	3ennett da	.m ,
3		the work th	at's been o	done to	remediate t	the things	
4		that happen	ed in ' 96 a	and the	independent	t reviews	
5		which have	been done s	since th	en, which a	assure tha	.t
6		the dam is	in good cor	ndition.			
7	THE C	HAIRMAN:		Thank y	ou, sir.		
8		There	will be a	special	a top-:	specific	
9		session on	hydrology a	and down	stream effe	ects and s	0
10		on during w	hich the qu	uestion	of dam safe	ety will	
11		arise, but	I encourage	e you to	read the	technical	
12		memorandum	on that per	rhaps be	fore you co	ome to tha	.t
13		session.					
14		Thank	you, sir.				
15	MR. M	URRAY:		Thank y	ou.		
16	THE C	HAIRMAN:		That's	it, ladies	and	
17		gentlemen.	Thank you	very mu	ch for you	r patience	: .
18		We will rec	onvene at 9	o'cloc	k tomorrow	morning.	
19							
20	(Pr	oceedings ad	journed at	9:00 p.	m.)		
21	(Pr	oceedings to	reconvene	on Thur	sday, Decer	mber 12, 2	013
22	at	9:00 a.m.)					
23							
24							
25							

1	REPORTER'S CERTIFICATION
2	
3	I, Leanne Kowalyk, OCR, Official Court
4	Reporter in the Province of British Columbia, Canada, do
5	hereby certify:
6	
7	That the proceedings were taken down by me in
8	shorthand at the time and place herein set forth and
9	thereafter transcribed, and the same is a true and
10	correct and complete transcript of said proceedings to
11	the best of my skill and ability.
12	
13	IN WITNESS WHEREOF, I have hereunto subscribed
14	my name this 13th day of December, 2013.
15	
16	
17	
18	
19	Leanne Kowalyk, OCR
20	Official Court Reporter
21	
22	
23	
24	
25	

1	REPORTER'S CERTIFICATION
2	
3	I, Diane Huggins, OCR, Official Court Reporter
4	in the Province of British Columbia, Canada, do hereby
5	certify:
6	
7	That the proceedings were taken down by me in
8	shorthand at the time and place herein set forth and
9	thereafter transcribed, and the same is a true and
10	correct and complete transcript of said proceedings to
11	the best of my skill and ability.
12	
13	IN WITNESS WHEREOF, I have hereunto subscribed
14	my name this 13th day of December, 2013.
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19	Diane Huggins, OCR
20	Official Court Reporter
21	
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23	
24	
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