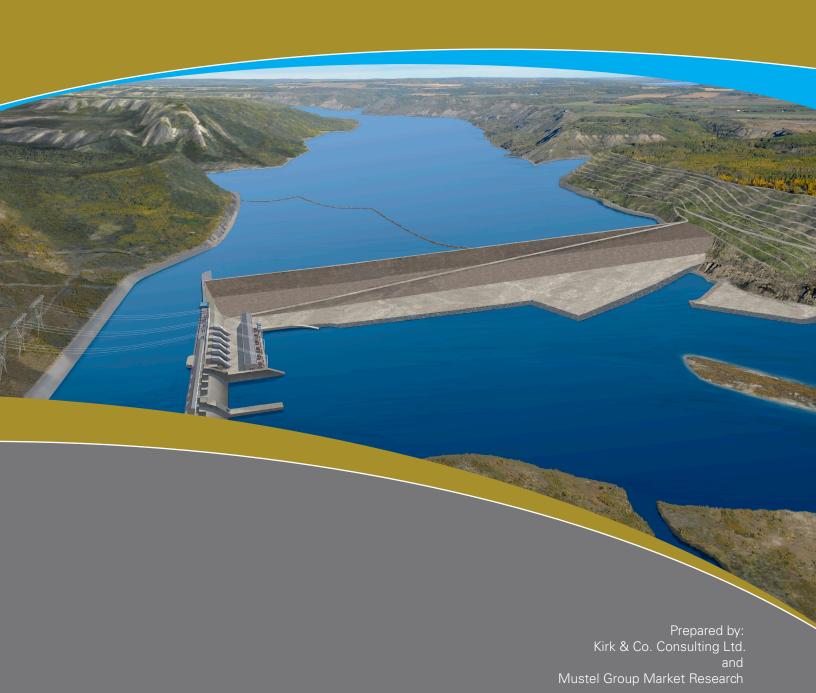
# Site C Clean Energy Project Project Definition Consultation, Spring 2012 Consultation Summary Report

July 25, 2012

Appendix 2: Stakeholder Meeting Notes



Hudson's Hope Community Hall

Hudson's Hope British Columbia

MEETING DATE April 11, 2012 11:30 a.m. – 1:30 p.m.

TYPE OF MEETING	Regular meeting of the Site C Clean Energy Project's Regional & Local Government Committee (RLGC) held within the Project Definition Consultation, Spring 2012 consultation period (April 10 – May 31, 2012). Input received during this meeting will form part of the Consultation Summary Report prepared at the conclusion of the consultation period.  The RLGC is an information-sharing committee that provides a forum for BC Hydro and elected officials to share information and discuss community interests, issues and benefits related to the project.
CHAIR	Susan Yurkovich, BC Hydro Executive Vice President, Site C Clean Energy Project
ATTENDEES REGIONAL & LOCAL GOVERNMENT LIAISON COMMITTEE MEMBERS  (IN ADDITION TO RLGC MEMBERS, ALL COUNCILLORS WERE INVITED TO PARTICIPATE IN THIS MEETING)	Mayor Lori Ackerman, City of Fort St. John Mayor Mike Bernier, City of Dawson Creek Mayor Merlin Nichols, District of Chetwynd Chair Karen Goodings, Peace River Regional District Councillor George Barber, District of Taylor Councillor Pat Crook, District of Mackenzie Councillor Sue Kenny, City of Dawson Creek Councillor Charlie Parslow, City of Dawson Creek Councillor Betty Ponto, District of Taylor Councillor Jerrilyn Schembri, Peace River Regional District Councillor Shaely Wilbur, City of Dawson Creek Ms Grace Fika, Director of Corporate Affairs and HR, City of Fort St. John Mr. Doug Fleming, CAO, District of Chetwynd Mr. Mike Gilbert, Community Development Officer, Northern Rockies Regional Municipality Mr. Arthur Hadland, Director, Peace River Regional District Mr. John Locker, CAO, District of Hudson's Hope Ms. Charlette Mcleod, Administrator, District of Taylor
ABSENT WITH REGRET	
ATTENDEES BC HYDRO	Dave Conway, BC Hydro Andrew Watson, BC Hydro Siobhan Jackson, BC Hydro Duane Anderson, BC Hydro Don Wharf, BC Hydro Mike Porter, Site C Project Team

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Hudson's Hope British Columbia

MEETING DATE April 11, 2012 11:30 a.m. – 1:30 p.m.

	Judy Kirk, Kirk & Co. Consulting Ltd. Emilie O'Genski, Kirk & Co. Consulting Ltd., Meeting Recorder
AGENDA	Welcome and Items from Previous Meetings     Review of February 22 Action Items Status     Review of February 22 Meeting Notes
NGLIND/N	2. Site C Project Definition Consultation, Spring 2012 Overview
	3. Roundtable

## PRE-READING MATERIAL/HANDOUTS

• BC Hydro Site C Clean Energy Project, Project Definition Consultation Discussion Guide and Feedback Form, Spring 2012 (distributed at the meeting)

## **MEETING SUMMARY KEY THEMES**

## **Community Benefits**

- Some local government representatives expressed an interest in discussing or negotiating community benefits on a regional basis.
- Representatives said they would like to understand which benefits their specific community could expect from the Site C project.

## **Consultation Topics**

- Representatives said they would appreciate more detailed information from BC Hydro regarding reservoir levels in specific areas and additional information on worker accommodation and impacts to agricultural land.
- Three local government representatives expressed concern that BC Hydro had acquired land (85<sup>th</sup> Avenue Industrial Lands) prior to attaining environmental certification to proceed with the project.

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MEETING DATE April 11, 2012 11:30 a.m. – 1:30 p.m.

### 1. PRESENTATION AND DISCUSSION

# 1. Welcome and Items from Previous Meetings – Susan Yurkovich Discussion:

- Susan Yurkovich, Chair, introduced the agenda and reviewed action items resulting from the February 22, 2012 RLGC meeting. The key highlights are as follows:
  - o Detailed maps were provided to show Site C impact lines and land use
  - SharePoint was introduced to facilitate the sharing of documents to the committee members
    - Committee members would like individual passwords for all council members.
       Siobhan Jackson is going to find out if that can be done.
  - Public consultation dates were reiterated as well as opportunities to provide feedback. BC
     Hydro will use feedback received during consultation to inform the planning process in preparation for the filing of the environmental assessment application by early 2013

### **Action Items:**

BC Hydro to determine if individual passwords for SharePoint can be provided to all Committee members.

## 2. Project Definition Consultation, Spring 2012 – Review of Discussion Guide and Feedback Form

## **Introduction – Dave Conway**

 D. Conway presented an overview of the Project Definition Consultation Discussion Guide and Feedback Form. He noted that public and stakeholder input received during consultation will help inform the planning process, project definition and plans for mitigation of potential project impacts as BC Hydro prepares the Environmental Impact Statement for review in the environmental assessment process in 2013.

## Transmission (Information Item) - Andrew Watson

Andrew Watson provided information regarding transmission update.

#### **Discussion:**

- A. Hadland asked A. Watson about the percentage of energy load that is lost in transmission.
  - D. Conway responded that the range of transmission line loss was between 7 to 12%. S. Yurkovich added that the updated transmission plan for Site C will allow BC Hydro to reduce the overall project footprint and provide several benefits including increased system efficiency.
- C. Mcleod asked what prompted the change in transmission plans.
  - S. Yurkovich responded that BC Hydro has updated the historical design from 30 years ago.

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- M. Nichols asked whether the existing transmission right-of-way would have to be doubled in width to carry the new transmission lines south.
  - S. Yurkovich responded that BC Hydro is conducting studies as part of the environmental assessment process to determine whether the existing right-of-way would have to be widened. BC Hydro is hoping that the existing right-of-way will accommodate the two 500 kV transmission lines and additional widening won't be necessary. This would reduce the overall project footprint. The exact right of way requirements will be determined by a study that is expected to be completed this Fall. BC Hydro is also looking at the overall system requirements for the province right now as part of the Integrated Resource Plan (IRP).

## Worker Accommodation (Information Item) – Siobhan Jackson

Siobhan Jackson provided information on planning underway regarding worker accommodation and mentioned that worker accommodation will be a consultation topic in the fall 2012 consultation.

#### Discussion:

- M. Nichols asked if BC Hydro is considering the different types of work shifts available in order to accommodate the workforce who chooses to live at their homes in Hudson's Hope, Dawson Creek or Chetwynd and commute to the construction site.
  - S. Jackson responded that Site C's construction workforce and schedule will be selected by the contractor. BC Hydro will do things that support safe commuting like carpool and shuttles to the construction site from worker camps.
- A. Hadland requested a trust be secured for the Peace River Basin at this time before the Site C project proceeds any further.
  - S. Yurkovich responded BC Hydro is seeking input into potential community benefits from the community and local governments, and is expecting to engage in further discussions about benefits with local and regional governments before filing an application into the formal environmental assessment process.
- K. Goodings expressed her concern that there were no Hudson's Hope councillors present at the meeting.
  - O J. Locher responded that six out of seven Hudson's Hope councillors had declared a conflict of interest in relationship to BC Hydro and the Site C project. The councillors will need to make an application to the Supreme Court of British Columbia to allow approval to those councillors who are in conflict to continue to participate. The District of Hudson's Hope has given Mr. Locher full authority to deal with matters pertaining to Site C and BC Hydro. It is Mr. Locher's preference that the elected officials were here to speak personally about this matter.

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## Preliminary Impact Lines (Information Item) – Andrew Watson/Mike Porter

Andrew Watson provided an overview of the preliminary impact lines and land use around the proposed reservoir. Mike Porter reviewed the four impact lines and proposed shoreline protection at Hudson's Hope

## **Discussion:**

- M. Nichols asked about the proposed 100 year lifespan of the dam.
  - A. Watson responded that the reservoir lifespan is much longer than 100 years. As a major addition to BC Hydro's hydroelectric generating assets, Site C would be continually maintained and upgraded over time. With reinvestment in the facility over the long term, Site C's operating life would be indefinite.
- A. Hadland asked about the accuracy of the impact line predictions, asking whether work had been done to study the slopes around the Williston Reservoir.
  - o M. Porter responded that there are important differences between the materials around the Site C Reservoir and the Williston Reservoir. The materials surrounding Dunlevy are relatively young and loose in nature whereas materials surrounding Site C Reservoir have been over ridden by glaciers and are capped by sands and gravels which help to armour the shoreline. BC Hydro's approach has been to look at the history of Dunlevy and consider those parameters in relation to Site C and by understanding the differences BC Hydro can make conservative predictions.
- A. Hadland asked what has been done to determine the accuracy of the original safeline on the reservoir compared to the impact lines used today.
  - A. Watson responded that there is a project team working to talk to property owners currently. The safeline approach was never adopted and it's very hard to compare the two. BC Hydro has been studying the reservoir in depth for over two years using the best approach and industry best practices.
  - o M. Porter added that the way BC Hydro has established the stability impact lines is to look at how the weakest slopes have performed over the last thousands of years which takes into consideration the weak clays that might be in the soils. BC Hydro takes a conservative approach and builds these considerations into their impact line predictions.

## Highway 29 Preferred Realignments (Consultation Topic) - Andrew Watson/ Don Wharf

Andrew Watson introduced the overview of Highway 29 preferred realignments and Don Wharf reviewed the preferred realignments or corridors in the six segments.

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## **Discussion:**

- A. Hadland asked why the Highway 29 realignment is shown within the wave generated impact lines.
  - o D. Wharf responded that BC Hydro has actually raised the height of the highway so that it would be able to withstand a wave within the Landslide-Generated Wave Impact Line.

## Outdoor Recreation (Consultation Topic) - Siobhan Jackson

Siobhan Jackson reviewed the proposals for recreation sites and public safety and use of the proposed reservoir during construction and operations.

## **Discussion:**

- D. Fleming would like the record to show that he would like recreation assets on the south side of the Moberly River.
  - S. Jackson responded that BC Hydro is proposing recreation assets on the north side because of the certainty of the land use as its BC Hydro-owned land. She noted that it is important for participants to reflect those comments in the feedback form so BC Hydro can capture that feedback going forward.
- S. Kenny asked about the clearing plan for the Site C reservoir.
  - S. Jackson responded that in addition to clearing the flood area of all merchantable timber, BC Hydro will be clearing the area that is predicted to erode in the first five years in order to proactively clear debris and potential floating hazards. BC Hydro will be coming back in the fall to consult with stakeholders and the public on additional topics including the proposed clearing plan.
- A. Hadland asked if there will be less recreational areas with the creation of a reservoir and if public access will be immediate once the reservoir is filled.
  - S. Jackson responded that river-based recreation versus reservoir-based recreation is a
    personal preference but there will be many reservoir-based opportunities. Boat access in
    some areas of the reservoir would be safe and accessible and construction of the reservoir
    boat launches and recreation areas would begin within the first year of reservoir creation.
- K. Goodings asked if there was stable ground around the Site C reservoir in proposed recreation sites.
  - S. Jackson responded that the topography around the Site C reservoir is different from that of Williston Reservoir. There will be access to proposed Site C recreation areas from Highway 29 and will be located in the safest areas possible. The sites will be well planned and designed based on observations taken within the first year of reservoir creation.

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- M. Nichols asked if BC Hydro would be logging steep slopes.
  - S. Jackson responded that as per British Columbia's forestry practices, Class 5 slopes would not be logged.
  - S. Yurkovich responded that all proposed recreation sites will be included in the environmental assessment. If the project gets certification, BC Hydro will be bound to a table of commitments that would become a condition of certification that BC Hydro must meet.
- M. Gilbert asked how much merchantable timber will be cleared from the valley.
  - S. Yurkovich responded that there would be over one million cubic metres of merchantable timber. BC Hydro is working on a clearing plan and will be coming back in the fall with up to date information on this topic.

## 85<sup>th</sup> Avenue Industrial Lands (Consultation Topic) – Andrew Watson

Andrew Watson reviewed 85<sup>th</sup> Avenue Industrial Lands and the multi-use of this site for the Site C project.

## **Discussion:**

- L. Ackerman asked if BC Hydro has discussed the 85th Avenue Industrial Lands with neighbouring property owners.
  - D. Anderson responded that BC Hydro has begun initial discussions with property owners and is interested in receiving feedback and comments on the plans as part of this consultation process.

## 3. Round Table - All

## **Discussion:**

- M. Bernier commented there are no real surprises in the Discussion Guide and that he's looking forward to the community consultation and hearing about the next steps.
- J. Locher commented that he'd like to see the Hudson's Hope municipal boundaries on future maps. He thinks that people not familiar with the area would find it hard to understand the impact of construction on the local communities, and as an example, thinks the mapping of the Hudson's Hope berm does not convey its 12 metre height. He mentioned that he prefers a regional approach to the project and that he finds difficult to comment on mitigation measures without knowledge of the scope of construction impacts. He noted that there is a way to better describe impacts.
  - S. Yurkovich clarified that there will be more information about construction once BC Hydro reaches the next stage of project planning which could include the timing of construction activities, movement of people, movement of vehicles and others.

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- Further, J. Locher expressed that consistent information needs to be made available to people in the community so that people can understand how the construction impacts various communities along the reservoir and downstream of the dam. He acknowledged that information is there, but that it needs to be made available in a consistent way to all participants in the region.
- S. Yurkovich responded that BC Hydro would take that comment away and find a way to make it easier for people to get the information. Any suggestions from RLGC would be welcome.
- A. Hadland commented that even though the Site C project in Stage 3, it feels as though BC
  Hydro has moved into Stage 4, especially with the acquisition of the 85th Avenue Industrial
  Lands. He feels that BC Hydro needs to stop activities that he sees as being in the construction
  stages until Stage 3, environmental review, is complete.
- Additionally, A. Hadland expressed concern about the fact the decision is still at least two
  years away and a situation has been created where there is loss of enjoyment for all those
  who are directly impacted; that has been in place since flood reserve was put in place.
- A. Hadland feels that BC Hydro should consider a name change to Energy BC as there are more technologies than just hydro power. He feels that the money spent on the consultation process and the preparation for the environmental assessment date must be over \$100 million and awareness needs to be brought to that.
  - S. Yurkovich responded that the project is in Stage 3 and there is a balance between the details that are needed for the environmental assessment application; BC Hydro will be required to produce a very high level of detail in order for the assessment to occur. She noted that she understands what A. Hadland is saying and respects that, while at the same time BC Hydro needs to know what the project footprint would be and study the impacts within that context in order to submit the application. In addition, communities want to understand what the impacts will be and the details behind the construction.
- A. Hadland commented that he feels the preamble in the Discussion Guide has too much about the merits of the project and would like it to be toned down. He also commented that there are different reasons for why Site C is needed circulating in the public realm to power homes in B.C., for export to the U.S., and now to power LNG plants.
- B. Ponto said she would like meeting materials distributed in advance of the consultation meetings as it allows for a more meaningful discussion. She noted that it is hard to digest the material when you receive it on the same day and then get asked to submit comments right away.
  - S. Yurkovich responded that the public consultation materials were made public online starting April 10<sup>th</sup> and that the purpose of discussing the consultation discussion guide

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was to give the local government committee members a preview of the consultation topics before the project team began meetings in regional communities. She added that BC Hydro will be meeting with local governments over the next few weeks.

- P. Crook asked about whether the reservoir levels will impact the Williston Reservoir.
  - A. Watson responded that there will be no impact as Site C would be a flow-through facility and take advantage of the water stored in Williston.
- C. Parslow expressed that he agrees with the idea of creating a Peace Basin Trust and is concerned about the potential commuter workforce and says that Highway 29 between Fort St. John and Hudson's Hope can be dangerous.
- M. Gilbert stated that he would like to see and have the ability to make recommendations
  related to the forestry plan as his community recovers their local industry. He added that he
  didn't see any reference to the transmission plan that would take this power north to Horn
  River.
  - S. Yurkovich responded that transmission and BC Hydro's long-term planning will be included in the Integrated Resource Plan. The draft IRP will come out later this spring and committee members will be encouraged to participate in the consultation meetings. BC Hydro will follow-up and make sure that the committee is aware when the draft IRP comes out. She also suggested that M. Gilbert follow-up with Siobhan Jackson directly regarding the clearing plan.
- S. Wilbur commented that British Columbia's logging practices have changed since the creation of the Williston Reservoir and he is interested in the proposed clearing plans that BC Hydro will consult on in the fall.
- S. Kenny asked whether BC Hydro will be looking at a foreign workforce as she is concerned about the lack of local resources available that would be required to construct Site C.
  - S. Yurkovich responded that BC Hydro is looking at best practices and what other large capital projects are doing. BC Hydro has been talking to the contracting community, as many workers will not be BC Hydro employees, so we want to make sure contractors understand the project and the timing.
- L. Ackerman asked for materials to be available electronically so municipalities can post material about Site C on their Facebook and Twitter platforms. She agreed that having details and timing regarding construction would be helpful in planning for Site C. She added that she is concerned about the 85th Avenue Industrial Land conveyor belt and dust issues. She also feels that Ministry plans for the Alaska Highway upgrades south of Fort St. John need to be expansion to four lanes, that two are not appropriate.

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- K. Goodings commented that the Discussion Guide and impact line maps presented at the meeting was good information. She is concerned about the oversight of the cost of the project and the fact that alternative energy sources are not being looked at; BC Hydro should not just look at what the impacts would be but look at the project itself. She supported A. Hadland's concerns about the purchase of the 85th Avenue Industrial Lands. There is an underlying fear that in the future, the province will view BC Hydro to be too expensive and get rid of it as a Crown Corporation. She stated that she wasn't convinced that the costs of this project are justified.
  - S. Yurkovich responded that a requirement of the environmental assessment application is to look at alternatives, including natural gas, and that will be discussed in the Integrated Resource Plan later this spring. It is the provincial government's policy for BC Hydro to produce 93% clean energy and will be looking at a number of portfolios to meet that target. On the cost piece, it has to go to the Commission for prudency review but she realizes that may not address K. Goodings question regarding the need for the project.
- W. Hiebert agreed that natural gas was important to look at as a source of energy. He also asked what the Agricultural Land Commission thinks of the Site C project.
  - o S. Yurkovich responded that BC Hydro has had some initial discussions with the ALC.
  - o S. Jackson added that BC Hydro has reviewed the agricultural study and field work with the ALC and the Ministry of Agriculture.
- J. Schembri agreed with concerns about the purchase of the 85th Avenue Industrial lands as it seems as though BC Hydro is proceeding with many aspects of the project before certification. She also shared concerns over the project cost. She also commented that despite BC Hydro having a talented team working on the Site C project, Mother Nature often doesn't follow course and unforeseen problems could arise.
- M. Nichols asked about access to the dam site from the south for transport of construction materials. It is important that this be included in the documentation.
  - S. Yurkovich responded that access roads are a very important topic which need to be discussed and will be included in the fall 2012 consultation. She added that there are additional topics that BC Hydro needs to come back with more information on, including access roads, clearing, agriculture and worker accommodation.

## **Action Items:**

- BC Hydro will follow-up and make sure that the committee is aware when the draft IRP comes out.
- S. Jackson to have the forestry lead follow- up directly with M. Gilbert regarding the clearing plan.

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## **Meeting Closing Comments:**

- S. Yurkovich concluded the meeting by thanking everyone for their time and participation, and for the input received during the meeting.
- S. Yurkovich added that BC Hydro team was looking forward to meeting with local governments and receiving further input during the next few weeks of the consultation period.
- S. Yurkovich finished by saying that she would be sending out a proposed date in late July for the next RLGC meeting.

SUMMARY OF ACTION ITEMS FROM MEETING	RESPONSIBLE
BC Hydro to determine if individual passwords for SharePoint can be provided to all Committee members.	BC Hydro
BC Hydro will follow-up and make sure that the committee is aware when the draft IRP comes out.	BC Hydro
Siobhan Jackson to have the forestry lead follow-up directly with M. Gilbert regarding the clearing plan.	BC Hydro
BC Hydro to send out alternative dates for the next RLGC meeting in late June/early July.	BC Hydro

MEETING DETAILS	BC Hydro Site C Clean Energy Project
	Project Definition Consultation, Spring 2012
STAKEHOLDER	Prince George – Stakeholder Meeting
MEETING	April 12, 2012, 9:00 a.m. – 11:00 a.m.
	Prince George Ramada Hotel – Cranbrook Room
	444 George Street
	Prince George, B.C.

PURPOSE	Notes from a multi-stakeholder meeting for the BC Hydro Site C Clean Energy Project held with stakeholders and representatives of the Site C Project on April 12, 2012 at Prince George Ramada, Prince George, B.C.
FACILITATOR	Judy Kirk, Kirk & Co. Consulting Ltd.
ATTENDEES	Dale Nixon, IBEN Local 993 Rod McGillivady, IBEN Local 993 Shirley Prokopchak, NCLGA Alex Reed, Falcon Camp Services Roy Norrish, Telus Sam Bataresh, Chamber of Commerce Rick Mathe, Pathfinder Endeavours Ltd. Kathleen Petrovic, L&M Engineering Tomm Adams, Allnorth Consultants Rob Brodie, Brodies Rock Drilling Aaron Weaver, Pathfinder Endeavours Ltd. Jim Sosiak, McElhaney Consulting Services Jason Gilkes, Pathfinder Endeavours Ltd. Perry Slump, Farmers Institute Mark Peil, CHBA Northern BC Bill Quinn, Nustride Executive Coaching Richard Fairservice, Allnorth Consultants Lee Fry Colleen Brown, Northlands Water and Sewer Supplies Sandra Hepburn, P.G. Naturalists Vicki Prigmore, Cooper Beauchesne and Associates Luke McDonald, L& M Engineering M. Callewaert, Trexiand Keith Parsonage, Houle Electric Cameron Stolz, City of Prince George Michael Sanderson Steve Sullivan, Steels Industrial Adrian Mohaveb, City of Prince George Jennifer Brandle-McCall, Prince George Dennis Fudge, B.C. Environment Bob Redden, EDI Mike Fawcett, Brock White Construction Materials

MEETING DETAILS	BC Hydro Site C Clean Energy Project
	Project Definition Consultation, Spring 2012
STAKEHOLDER	Prince George – Stakeholder Meeting
MEETING	April 12, 2012, 9:00 a.m. – 11:00 a.m.
	Prince George Ramada Hotel – Cranbrook Room
	444 George Street
	Prince George, B.C.

SITE C PROJECT TEAM ATTENDEES	Dave Conway, BC Hydro Siobhan Jackson, BC Hydro Andrew Watson, BC Hydro Mike Porter, Site C Project Team Duane Anderson, BC Hydro Don Wharf, BC Hydro Emilie O'Genski, Kirk & Co. Consulting Ltd., Meeting Recorder
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## **KEY THEMES**

## Highway 29

 Participants expressed an interest in construction activities, including location of worker accommodation and the timing for realignment of segments of Highway 29.

## **Impact Lines and Land Use**

- Participants were interested in how sedimentation would affect the reservoir.
- Participants were interested in how many residents would be affected by land use restrictions along the reservoir.

## **Outdoor Recreation**

 Participants expressed an interest in whether BC Hydro would provide greater opportunities for recreational vehicle sites with access or close proximity to the reservoir, with particular interest in Jackfish Lake Road recreation opportunities.

The record notes that the meeting was called to order at 9:00 a.m.

### **DISCUSSION**

(Abbreviations will be used and mean – Q: Question, A: Answer, C: Comment)

## 1. Welcome and Introductions – Judy Kirk

Judy Kirk welcomed participants to the multi-stakeholder meeting, explained the format of the meeting and introduced the Discussion Guide and Feedback Form. Judy informed participants that the meeting was being recorded for accuracy. Roundtable introductions followed.

## 2. Review of Discussion Guide and Questions and Answers - All

Dave Conway reviewed the introduction to the Discussion Guide, including ways to participate in the consultation and the schedule of open houses and the list of information items and consultation topics.

Dave Conway reviewed BC Hydro's energy planning, design of Site C and key project benefits.

MEETING DETAILS	BC Hydro Site C Clean Energy Project
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Andrew Watson provided information regarding transmission update.

- Q: Lee Fry: What's the timeline and when would you change the transmission lines?
- A: Andrew Watson: The studies we've done to date have looked at the feasibility and exactly how we would optimize the existing transmission lines. Roughly speaking, we'd build the 500 kV lines and then would take the 138 kV lines. We would stagger the construction and it wouldn't start immediately but within year one or two.
- C: Judy Kirk: Perhaps you could give a bit more detail, Andrew. If the regulatory process is two to three years it's just giving more of an idea of what we can expect.
- C: Andrew Watson: It would be within the seven year construction horizon.
- Q: *Lee Fry*: So 2022?
- A: Andrew Watson: The in-service date we are working towards for Site C is 2021, so it would be before that.

Siobhan Jackson provided information on planning underway regarding worker accommodation and mentioned that worker accommodation will be a consultation topic in the fall 2012 consultation.

- Q: Rick Mathe: Are you just looking at focusing worker accommodation in Fort St. John or other areas like Taylor and Hudson's Hope?
- A: Siobhan Jackson: The core will be as close to the dam site as possible in order to reduce travel time. In Taylor we are looking at locating an RV Park there, and if there are other opportunities that we can leave behind for recreational use. In Hudson's Hope we are looking at small-scale temporary accommodation. They'd be operated seasonally as some of the clearing work will be seasonal.
- Q: Rick Mathe: Through the Jackfish Lake Road, are you planning on building a bridge through construction?
- A: Siobhan Jackson: Yes, if you look at the picture of the dam site on page 4 you'll notice that on the downstream side there would be a temporary bridge to move people to the site.
- A: Andrew Watson: It would be built out as part of the coffer dam. That would actually form part of the dam and it would allow for access during construction.
- A: Siobhan Jackson: The Jackfish Lake Road from Chetwynd will be updated and accessible from the north and south.

Andrew Watson provided an overview of the preliminary impact lines and land use around the proposed reservoir. Mike Porter reviewed the four impact lines and proposed shoreline protection at Hudson's Hope.

- Q: Jennifer Brandle-McCall: I was wondering if you could tell me within the flood erosion how many residents are in that zone are impacted?
- A: Andrew Watson: Based on what we know today, the Site C project would affect approximately 30 privately-owned residences through flooding, preliminary impact lines, and highway realignment. However, not all of these residents would be required to move. About 10 would have to vacate the property entirely, about 10 could potentially stay depending further site-specific analysis and about

# MEETING DETAILS BC Hydro Site C Clean Energy Project Project Definition Consultation, Spring 2012 Prince George – Stakeholder Meeting April 12, 2012, 9:00 a.m. – 11:00 a.m. Prince George Ramada Hotel – Cranbrook Room 444 George Street Prince George, B.C.

10 residences could potentially be moved to another area on the property, if the residents wanted that and depending a review of feasibility.

- Q: *Michael Sanderson*: We've had some extreme weather occurrences last year; did those floods alter your plans at all?
- A: Andrew Watson: The flood predictions are based on information much more extreme than that and it hasn't changed. We did use the data from last year's flooding for sure. It was the second highest flood in our records.
- Q: *Michael Sanderson*: Where is that stuff that erodes? How does that impact the river levels? As it sluffs down, where does it go?
- A: Andrew Watson: That is part of the sediment transport modeling that we are doing. Silt and clay will go into the reservoir and settle over time. The sands would develop out in front to the beach and fan in front. That's all part of our studies as part of the environmental impact assessment.
- Q: *Perry Slump*: What about agricultural impacts? There is no indication in this guide about how many agricultural zones will be impacted?
- A: Siobhan Jackson: Our studies are continuing. Last year we did a lot of field work to understand soil conditions. We've returned to do it at a site specific scale throughout the valley. We are using that information as well as the climate data from the last 40 years and updating it with more current data. We also have about four climate stations in the valley and we are doing analysis against the long-term record. In the fall we are coming back to talk about the details on agriculture but right now it would be premature. Historically, we said it would be 3,000 hectares impacted by the project, and that number might not have changed much.
- Q: *Perry Slump:* As a comment, considering the number of pages of documentation here, there is just only one word about agriculture and it's a major concern of mine.
- A: Siobhan Jackson: There are a lot of topics that we have on this project and we are bringing that topic in particular in future consultations this fall.
- C: Judy Kirk: We should have put that forward in our introduction. Agriculture, worker accommodation, access roads, clearing and transportation plans will be brought forth as consultation topics in the fall.
- Q: *Michael Sanderson*: To follow up, my concern is that you haven't forecasted where the erosion is going, how confident are you that these water levels are accurate?
- A: Andrew Watson: Our predictions of erosions are that in the shallow terraces where there is enough sand in the material, it will slow the erosion process down. These are conservative predictions.
- A: *Mike Porter*: I think we mentioned up front that the reservoir is not built for water storage; it is water that flows through the system. It wouldn't change the operating level as it flows through.
- A: Andrew Watson: Over time the erosion will decrease and we are studying that now. If you look at the historic work done you'll see it's a conservative estimate. We just need a flow-through channel and sediment wouldn't inhibit Site C from generating power.
- C: Judy Kirk: We don't have a question in the feedback form on that so we encourage you to write your questions or comments in the additional comments sections in the feedback form.

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- C: *Mike Porter*: In terms of reservoir operating elevations, what is the relation compared to the control on the south end.
- A: Andrew Watson: The only reason we would go above that if there was a very large storm creating waves. That's accounted for in the flood and wave lines. The spillway will be controlling that.
- Q: Luke McDonald: Is there a timeframe for how many years until the erosion impact lines are reached?
- A: Mike Porter: The erosion impact lines take into consideration about 100 years. The additional time it takes for the slopes to flatten to their annual proposed would be something in excess of 100 years.

Andrew Watson introduced the overview of Highway 29 preferred realignments. Don Wharf reviewed the preferred realignments or corridors in the six segments.

- Q: Lee Fry: What grades are you building the highway to and will it be built to heavy haul standards?
   A: Don Wharf: The highway will be built to Ministry of Transportation and Infrastructure standards. The Ministry has reviewed all of the design work we've done to date and have approved it. They will be the final approval agency once we've completed further detail design. With respect to design grades, the maximum right now is 6% and as far as the bridge it will accommodate 85 tonne heavy haul. There will not be load restrictions on that corridor.
- Q: Luke McDonald: On the Halfway River alignment, is that a large fill with a short bridge?
   A: Don Wharf: It's a 650 metre causeway that will be a granular fill protected by rip rap and a 350 metre bridge to cross the channel itself. The height of the bridge will be about 40 metres.
- Q: *Bill Quinn*: Just wondering, how many seasons do you think you'll take to complete the realignment?
- A: Don Wharf: There is a seven-year construction period for the dam and we need to have the highway relocated before the flooding. The procurement model has not been selected so we don't know how it will be packaged. What we envision is that each segment would take two to three construction seasons to complete: some sections like Farrell and Dry Creek would be more complex.

Siobhan Jackson reviewed the proposals for recreation sites and public safety and use of the proposed reservoir during construction and operations.

- Q: Aaron Weaver: Do you have plans for ground based access like camping to improve RV use of the area?
- A: Siobhan Jackson: We are looking at a couple of new sites that we would use during construction and then they would be left after construction for recreational use. Additionally, each of these boat launch areas that have been selected, have also been cited in areas that we are confident are safe. We've thought of the long-term use. We aren't proposing that BC Hydro put the

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campsites in but we want to support municipalities find those areas. This is potentially a new opportunity. A number of campgrounds in the region are privately run.

- Q: Aaron Weaver: Most of the associated opportunities here are linked to Highway 29, has there been any discussion about Jackfish Lake Road access to recreation?
- A: Siobhan Jackson: One thing that is interesting is that the distance wouldn't be shorter because of the shape of the reservoir. You get into a network of undeveloped road networks on the south bank. At the moment, those lands and roads aren't in our control.
- C: Aaron Weaver: Potentially it's more of a draw for people and it could be mean more use.
- C: Siobhan Jackson: One thing we look at in environmental assessment is whether the roads are permanent or temporary and will it change land use? At the moment, the access roads are temporary and they'll be decommissioned when we are finished. Most of the roads on the north side of the Moberly River are for clearing access and we won't be maintaining them post-construction.
- Q: Michael Sanderson: Has BC Parks been approached?
- A: Siobhan Jackson: There are no parks affected by the project but we have talked to them because Parks have protected area and it's bound by the entire south bank of the reservoir, so we will be continuing that conversation.
- C: *Michael Sanderson*: You haven't mentioned what people use the reservoir for. The use will change.
- C: Siobhan Jackson: One of the key inputs of the outdoor recreation is the fish and wildlife assessment. That will be taken into account. Generally, we anticipate sport fish will do quite well. The wildlife situation in the valley would change. We are taking into account the hunting affects and changing populations.
- Q: *Michael Sanderson*: Those studies are ongoing?
- A: Siobhan Jackson: Yes, they are. This content goes towards the Environmental Impact Statement. We are working to an early 2013 timeline to complete that document. All of those studies feed into that assessment. The BC Environmental Assessment Office and Canadian Environmental Assessment Agency will have their own consultation comment period in spring 2013. It will be a full index of everything that we will be required to assess.
- C: Andrew Watson: It will also including methodology and that draft document is now available.

Duane Anderson reviewed 85<sup>th</sup> Avenue Industrial Lands and the multi-use of this site for the Site C project.

- Q: *Mike Fawcett*: What is the distance between the excavation site and the construction site?
- A: Duane Anderson: Distance between excavation and dam site is about 6 kilometres. The material would be transferred from the conveyor to trucks. On page 30, the conveyor is shown in blue. That means it will get through a zone with the least impact to residences. When we chose the preferred alignment our guiding principal is that we want the route to have the least impact to residences.
- Q: Vicki Prigmore: Do you have any idea how the conveyor belt will impact wildlife? Will it end up going through Fort St. John?

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- A: Duane Anderson: At a high level, the conveyor would have security fences. We will incorporate wildlife crossing locations. That is where our discussions are currently.
- A: Siobhan Jackson: The underpasses under the roads are incorporated as well. The majority of the lands being crossed are already cultivated and fenced. Even the underpasses create a place for wildlife to pass through.
- Q: Aaron Weaver: Is there a reason why you don't take the conveyor right to the river?
- A: Duane Anderson: We had to stop it before the river because the valley is restricted and there is not a lot of room or flat spots for the end transfer points.
- Q: Michael Sanderson: Have you done a comparative cost analysis of Site C versus natural gas?
  A: Dave Conway: We talked about the load demand forecasting. Natural gas is one potential option.
  There is a lot of conversation about that right now. Within the policy constraints that we work with, there is some room to add natural gas to our portfolio and we have a mandate to be 93% clean. We have some room with the remaining 7% to do natural gas. The Integrated Resource Planning group will be looking at discussing the potential. But even over the long haul when demand is expected to grow by 50% over 20 years, we wouldn't be able to provide the same capacity or energy that the Site C project would. Given the cost of the project, there is large upfront, but over the long term 60, 80, 100 years that operating cost is very low and per megawatt one of the best options. Yes, there is room, but Site C is the best long-term option. Long term, natural gas could possibly cost more. From a footprint aspect, when you look at greenhouse gas emissions, we know Site C is well-ahead of natural gas and less impact.
- Q: Adrian Mohaveb: I'm noticing that previous charts on page 3 show a decline in fiscal 2016 because I think Burrard Thermal would have been taken offline? Has that decision been reversed?
- A: Dave Conway: We've been told we can only use Burrard Thermal as emergency back-up. The reason you see the chart with the supply dropping off because that is when we are retiring some of the IPP contracts that have come online quite early.
- C: Adrian Mohaveb: I just remember seeing the decline because of Burrard but that's not the case.
- A: Siobhan Jackson: The self-sufficiency requirements have been changed and that is now reflected. I guess one other thing is that we are constantly updating our supply and demand and it will always change. We track what goes on with our large customers and look at the long-term. Some are driven by forecasting, policy and even electrification.
- A: Dave Conway: We do monitor month-to-month and look at it yearly and do a revised IRP about every three years.

Dave Conway wrapped up the meeting and encouraged participants to complete the feedback form and asked participants to encourage friends and others to participate.

The record notes that the meeting ended at 11:00 a.m.

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	Mackenzie Recreation Centre – Multi-Purpose Room
	400 Skeena Drive
	Mackenzie, B.C.

PURPOSE	Notes from a multi-stakeholder meeting for the BC Hydro Site C Clean Energy Project held with stakeholders and representatives of the Site C Project on April 13, 2012 at Mackenzie Recreation Centre, Mackenzie, B.C.
FACILITATOR	Judy Kirk, Kirk & Co. Consulting Ltd.
ATTENDEES	Bruce Armstrong, Ministry of Forests, Lands and Natural Resource Operations Liz Blackburn, College of New Caledonia Kerri Borne, District of Mackenzie Dan Boulianne, Duz Cho Logging Tom Briggs Wanda David, Mackenzie Public Library Sam Davis, Ministry of Forests, Lands and Natural Resource Operations Rick Dreise, Ministry of Forests, Lands and Natural Resource Operations Dorothy Ehrman, District of Mackenzie Dave Forshaw Vi Lambie, Mackenzie Nature Observatory John Lambie, Mackenzie Fish and Game Association Brian Sali, Elk of Canada Mel McMeeka, Sonic Concrete Neil MacDonald Rick Parent Karen Parent R.J. Payne, RJ's Rentals and Repairs Inc.
SITE C PROJECT TEAM ATTENDEES	Dave Conway, BC Hydro Andrew Watson, BC Hydro Siobhan Jackson, BC Hydro Emilie O'Genski, Kirk & Co. Consulting Ltd., Meeting Recorder

**KEY THEMES** 

## **Reservoir and Water Flows**

• Participants expressed an interest in knowing how Site C construction and operations might affect reservoir operations and fluctuation of the Williston Reservoir.

## Clearing

Participants expressed an interest in BC Hydro's clearing plan for the Site C reservoir and want to
ensure that clearing for the Site C reservoir is better and more effective than the clearing done for
the Williston Reservoir.

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## **Impact Lines and Land Use**

- Participants were interested in how sedimentation would affect the reservoir.
- Participants were interested in how many residents would be affected by land use restrictions along the reservoir.

#### **Outdoor Recreation**

- Participants expressed an interest in when the Site C reservoir would be available for recreational
  use.
- Participants were concerned that BC Hydro might not keep recreation commitments.

## **Consultation Process**

• Participants expressed appreciation for the amount of information presented and for the thorough public consultation and environmental assessment process.

The record notes that the meeting was called to order at 10:00 a.m.

## **DISCUSSION**

(Abbreviations will be used and mean – Q: Question, A: Answer, C: Comment)

## 1. Welcome and Introductions – Judy Kirk

Judy Kirk welcomed participants to the multi-stakeholder meeting, explained the format of the meeting and introduced the Discussion Guide and Feedback Form. Judy informed participants that the meeting was being recorded for accuracy. Roundtable introductions followed.

## 2. Review of Consultation Discussion Guide and Questions and Answers - All

Dave Conway reviewed the introduction to the Discussion Guide, including ways to participate in the consultation and the schedule of open houses and the list of information items and consultation topics.

Dave Conway reviewed BC Hydro's energy planning, design of Site C and key project benefits.

- C: Vi Lambie: Does the budget announcement of a required two-year review period change the environmental assessment for the Site C project?
- A: Andrew Watson: In the budget, they referenced a two-year period for project review. We haven't changed any of our plans for environmental assessment. The joint agreement with the province's timeline was about three-years which started in August 2011. We understand our work plan and the steps that need to be followed. Right now that rough schedule takes us a little more than two years out from this summer.

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- C: Judy Kirk: Any more detailed questions about the regulatory process are best directed to the provincial and federal agencies. There are websites listed in our guide that you can visit for more information.
- C: Dave Forshaw: Are you going to speak to Williston Lake and how Site C will change its storage?
- A: Andrew Watson: Site C is designed as a flow-through facility. When the water is released it will just pass through Site C. We can do additional daily shaping but it won't change the storage regime.
- C: Dave Forshaw: Okay, I just wanted to know if it will affect Mackenzie's industry, transportation, environment, etc.
- A: Andrew Watson: There would be no change. We are taking advantage of what is already happening right now and there will be no change.
- C: Judy Kirk: Just to capture the question, you were asking whether there would be any change to Williston Reservoir and would there be any change to other use of the reservoir.
- A: Andrew Watson: During the diversion period, we will be managing the change of spill release but we manage that on a yearly basis and it's within climatic norms. But long-term, no change.
- Q: Tom Briggs: I was interested in what Dave Conway was saying. My interest is that we used to have some good agreements with Powerex and the trade of our power. Is that still happening today?

  The example was the States would take our excess in the summer. In the winter, we would take power back from the States. Is that arrangement still there?
- A: Dave Conway: Yes, we still do that if there is a market available. Our peak load is the winter, as you are aware. If there is capacity, we will sell energy if we can get a good price and optimize it for the rate payer. It keeps your rates down by about \$100 a person. We are going to market at the present time to buy power at the peak price because we can't meet our load demand. We purchase for need, but also do energy trading.
- Q: Vi Lambie: If Site C is producing power, will you be lowering Williston at a slower rate?
- A: Andrew Watson: No, if Site C is constructed the operation of Williston won't change.

Andrew Watson provided information regarding transmission update.

- Q: Tom Briggs: Will any of this power be going toward Alberta?
- A: Andrew Watson: It will only go to Alberta as part of our Powerex agreements.
- Q: Tom Briggs: Any customer is good. I was just wondering; it seems like they need some power.
- A: Siobhan Jackson: We only have one tie line to Alberta. The short-term trade arrangements do apply to Alberta. We don't have any long-term contracts for any out-of-province customers.
- C: Judy Kirk: Just to make sure I understand, really what you are saying is Alberta may need this energy and you wonder if there is a transmission there.
- C: Tom Briggs: I've been to a conference where there was discussion about power needs and they talked about nuclear energy and many different ways to generate power, and one thing that came up was purchasing power from British Columbia. It seemed like a good idea since we have the power.

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C: Siobhan Jackson: As Dave Conway mentioned earlier, the supply from Site C is needed domestically as our load forecast grows. We aren't in a position with this project to build for more than is forecasted.

Siobhan Jackson provided information on planning underway regarding worker accommodation and mentioned that worker accommodation will be a consultation topic in the fall 2012 consultation.

Andrew Watson provided an overview of the preliminary impact lines and land use around the proposed reservoir and reviewed the four impact lines and proposed shoreline protection at Hudson's Hope.

- Q: Sam Davis: Last year we had a flood problem in Pine Pass. Have you looked at those numbers that came out of that area?
- A: Andrew Watson: Yes, we did update our data with the numbers from last year's floods. The type of flood we are incorporating and planning for is actually much larger than that. That was about a 50-year flood and we are considering 1,000-year floods for this type of work. But ultimately, yes we are considering it in our records.
- Q: Brian Sali: What is all this silt that washes out?
- A: Andrew Watson: The sand parts will flatten out and wash into a delta. The silts and clays will suspend in solution, some will pass through the turbines and others will fan out and settle around the reservoir.
- Q: Brian Sali: So anything behind the dam, it's all going to be murky?
- A: Andrew Watson: It could contribute to that in certain areas. In the first few years, when the reservoir is most active, the type of suspended sediments could reach the levels you see from the tributary inflows. During the freshet the Moberly and Halfway produce a lot of sediment that goes into the reservoir and during the early years of reservoir operation it could reach that level but over time that will decrease.
- C: Brian Sali: Over time, the fish will come back into those waters.
- C: Andrew Watson: Yes, definitely.
- C: Siobhan Jackson: We have a geomorphology team and we will be predicting where these sediments will go and what the effect on water quality will be and the impact on fish and human health. Most activity in the reservoir will be in the early years and those studies will be included as part of the environmental assessment.
- Q: Brian Sali: So that assessment takes place before the dam is built?
- A: Siobhan Jackson: Yes, we are working towards submission of the Environmental Impact Statement (EIS) in early 2013. The EIS review process, most likely in spring 2013, is when they will be reviewing in order to make a reasonable forecast of what those affects will be.
- C: Judy Kirk: These studies that BC Hydro is undertaking now are guided by the EIS Guidelines. The public comment period is coming up in May. In the first two weeks of May there will be public open house on the Guidelines. In early 2013, BCH anticipates applying for certification.
- C: Andrew Watson: The public comment period for that has already started. We need agreement on the methodology and how it will translate. That document is on the agencies website right now.

C: Sam Davis: How many years to flush the sediment downstream?

A: Siobhan Jackson: The sediment and geomorphology studies being done now will help us understand where the river currently pushes sediments to. Because it's a regulated river, even the outflow from the Halfway doesn't travel very far, it's very localized deposits in the river environment. So you get the fans of material at the ends of each of the tributaries. The islands themselves used to wash downstream when there was a big freshet but since the construction of Bennett, the sediment deposit is now localized. It's not transporting now from this area down towards the delta. When you get down below the Pine and the Beaton rivers you get more natural forces and more freshet influenced environment. The majority of the sediment contribution on the Peace River is from the Beaton and Smokie rivers, not out of the part of the river we are impacting. So the predicted downstream changes from Site C will be very minute.

Q: Rick Parent: My question is on the clearing of the vegetation and preparation of the reservoir. Is there a program as far as what they will do with the organics, soil, vegetation, plants that will be taken out? Have we've learned from Williston how it was cleared and how it caused problems. What is the program that will prevent the disaster we have at Williston that is still lingering on years later?

A: Siobhan Jackson: We are developing a clearing plan and will be coming back with that information in the fall consultation. As you know, Williston is a 1,700 square kilometer reservoir in surface area. Site C would be 93 square kilometers in surface area. We have a viable forest sector that will be able to receive the trees. Our principles are to remove the merchantable timber and also determine what other vegetation should be removed, what the pros and cons of removing vegetation – leaving it there for stability versus clearing it. We need to clear the navigation zone and clear boating area. We are also doing ground work to look at steep slopes to make a decision about what vegetation should stay or be removed there. With respect to the soils and other organics, they will serve a probably beneficial role to stay where they are. We are also doing methylmercury studies but we don't see a relationship between removal of those organics and biomass as any sort of benefit. We are linking all the studies so when we do make a decision on what to remove and why it will be with the benefit of all that information. Because those activities can be harmful in themselves, if we go and remove too much soil or organics it could cause other problems, such as run-off. Fundamentally, the reservoir will be cleared. In conjunction with Andrew's program, we are taking information from the early and most active erosion periods and we are pre-clearing those areas so material doesn't fall in the reservoir during the first years of operation, so clearing the reservoir plus a buffer around it.

Q: Bruce Armstrong: How long a period before the reservoir can be used for recreation?

A: Siobhan Jackson: Can I hold that question until we get Recreation section of the Discussion Guide as it is covered there?

Q: Liz Blackburn: How many residents are impacted?

A: Andrew Watson: Based on what we know today, the Site C project would affect approximately 30 privately-owned residences through flooding, preliminary impact lines, and highway realignment. However, not all of these residents would be required to move. About 10 would have to vacate the

property entirely, about 10 could potentially stay depending further site-specific analysis and about 10 residences could potentially be moved to another area on the property, if the residents wanted that and depending a review of feasibility.

- Q: Tom Briggs: Certainly as we all know, Williston Lake goes 50-feet a year from high pool to low level. Every time that reservoir drains, there is silt and erosion off of the banks. How much is it actually affecting the reservoir or is that silt making the reservoir wider? How much is it affecting the life of the reservoir? Of Williston and Site C.
- A: Andrew Watson: For the Site C reservoir, the long-term storage life is not actually governed by the beaching and erosion. In the first few years of operation there will be quite a bit of that and then it will slow down. In the following decades it will be driven by harsh storms where there will be a surge of erosion and sediment. Over the years, it will be dominated by the sediment from Moberly and Halfway rivers. There is a delta formed at the end of those tributaries and over hundreds of years it will make its way out, much like Finlay and Parsnip. With Site C, that will eventually get to the main part of the reservoir and eventually start to pinch that off. Conservative studies were done to look at the order of magnitude back in the 1980s and it was hundreds of years before it started to confine at the Halfway River. In terms of volume, it was outward of 700 years before substantial infilling. The life of Site C is really driven by the pondage at Williston; Site C just requires a channel. If you look at Williston, we have done order of magnitude studies and it's thousands of years before that is substantially affected. The lifespan of these facilities is really indefinite as long as the facilities are maintained. You'll find over time the beaching will slow and that will be less of a factor; the long-term will be driven by the tributaries.
- C: Vi Lambie: I think you should look around Mackenzie because it really goes in every year because of the undermining of the banks. There are lots of areas further north, near the old airstrip is, the erosion just continues.
- A: Andrew Watson: Near the Dunlevy area, by Williston, we have been doing analysis and factoring it all into the Site C work. Near Williston, you're right, there has been substantial erosion. These areas really don't have a lot of gravel so erosion keeps on going.
- Q: Rick Payne: Have you identified the source of building material for the dam?
- A: Andrew Watson: The core of the dam is a consultation topic and we will go through that later in the meeting. We have a very good source for that.

Andrew Watson introduced the overview of Highway 29 preferred realignments and reviewed the preferred realignments or corridors in the six segments.

Siobhan Jackson reviewed the proposals for recreation sites and public safety and use of the proposed reservoir during construction and operations.

- Q: Bruce Armstrong: How long will it be until that portion of the reservoir is useful for recreation?
- A: Siobhan Jackson: We propose to build these sites within the first year in place. With that we anticipate the upper end of the reservoir will be available within or just after the first year. The rest

will be monitored and opened within the next couple of years. The debris will come from the west side, the most active debris collection would be in the lower ends of the reservoir, as would the slope monitoring.

- Q: Sam Davis: What is your proposal for boat passage?
- A: Siobhan Jackson: We are not planning to put boat passage past the dam. We need to understand what the current navigational use is and to put a mitigation plan to allow continuation of use. We need to understand where people put their boats in and what their intent is. For the mitigation plan, we need to make sure that people's ability to put the boat in the river or people's ability to put the boat in the reservoir and enjoy the day would be possible. River locks are typically put in for commercial reasons. We are not proposing a lock in the dam. Railroads have been mentioned but it would be a couple of kilometres long and we need to do more analysis to see if it would be used or would people simply drive to the next boat launch location.
- Q: *Judy Kirk*: That said, if you think there should be that type of facility, please put your comments down in your feedback form.
- A: Vi Lambie: Will these boat launches actually be put in?
- A: Siobhan Jackson: I understand your question. The environmental assessment process and permits will create a table of commitments. The water license commitments with Williston were very much less defined. If we say we are going to build these boat launches and that is a condition of our environmental certification license and we must build them. The water license process is very compliance based when it comes to water levels.
- C: Judy Kirk: I am not with BC Hydro, my firm works with other large organizations in the environmental assessment process. The strength of the law will be behind the table of commitments, which is different than the situation you have today.
- Q: Rick Payne: Will the condition of these laws that are governing usage extend to the Williston basin?
- A: Siobhan Jackson: They will extend to any commitments within the Site C environmental assessment but not retroactively, so no they will not.
- C: Rick Payne: If you can't look after this one reservoir then why would we want another reservoir?
- C: Dave Conway: Vi and I were talking about local and corporate memory of things that have happened. For example, water use planning that went between 2001 and 2003, Siobhan and I are the two of the remaining people who remember that related to the Peace. We still have commitment to do upgrades to the Mackenzie boat launch and Dunlevy boat launch down by W.A.C. Bennett Dam as the two priorities for Williston.
- Q: Vi Lambie: What about the other priorities that were set from the meetings? We set some for Parsnip and other areas, and now you are just fixing up boat launches that already exist?
- A: Dave Conway: Siobhan Jackson and I completely understand your frustrating. We had a consensus agreement in 2003 and that was accepted by the government in 2007, so we've had it for five years.
- C: Vi Lambie: Yes, and we gave up a lot to get those things and we didn't get them.
- C: Dave Conway: This forum isn't the place for these concerns...
- C: Vi Lambie: I realize that, I just want to be sure that these Site C boat launches will be more of a commitment than ours.

- C: Dave Conway: We totally agree and understand. I don't want to negate the concerns and frustration around this. I think what we should be asking for is an update meeting regards to those commitments and where those water license requirements sit, I can arrange that for you with Bob Gammer, the Community Relations Manager and the manager of the program. I want to suggest that after our meeting today, we arrange that meeting and I'll get back to you. I think that if there is enough interest that we do a similar stakeholder session.
- C: Andrew Watson: This is also an issue for the regulators, this is joint panel review that Site C is going to go through so I also encourage you to form your questions to them as well because the federal and provincial agencies are represented at the formal process we are going through now.
- C: Judy Kirk: I'd like to suggest you include the history of this problem as well.
- Q: Rick Payne: Is there any fluctuation level guidelines that are set for Site C? When you put in boat launches you need to know that.
- A: Andrew Watson: Yes, it will be 1.8 metres. It will be the most stable reservoirs in the fleet, much like Revelstoke. The surface area will be big enough any kind of daily power shaping will be done within a small area of that 1.8 metres. The project design will ask for a water license with a 1.8 metre operating range.
- Q: Rick Dreise: In that proposal, will you have a carte blanche to draw down as much as you want?
- A: Siobhan Jackson: No, it doesn't change the existing water license for Williston reservoir.
- C: Andrew Watson: All the water use requirements and considerations that were part of water use planning for Williston, nothing changes within that.
- Q: Sam Davis: I am curious about the potential for long-term mooring sites?
- A: Siobhan Jackson: We've heard interest from Hudson's Hope for trying to find a spot for a marina. There could be the potential for that. We are working with Transport Canada as well. That might be the type of thing that will allow for multi-day long term use. We haven't landed on that yet but it is something we encourage you to put down as well.
- C: Tom Briggs: It's encouraging to see in the planning of this facility there is much more thought going into recreation. At least we will be able to get our boats to the lake. Unfortunately that's not the case on your major reservoir. I guess it was a time when they were talking about economic development. You can see the difference over time. We've got a nice day-use site and a nice campsite but other than that we have a boat launch that for a month you can't get to the water from and someone's going to have to tug you out of the dirt.
- C: Dave Conway: I will contact Bob Gammer and the water license requirement group at BC Hydro to talk about the requirements of upgrades to the existing boat launches that we are commitment. I can suggest that we also pass the information on to the water controller too.

Andrew Watson reviewed 85<sup>th</sup> Avenue Industrial Lands and the multi-use of this site for the Site C project.

Q: Rick Parent: Are you going to be trucking or conveyor belting it out?

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- A: Andrew Watson: Yes, that's an important consideration that we'll discuss on the next page. Our preferred method is a conveyor belt system.
- C: Judy Kirk: That brings us to the end of the Discussion Guide. As mentioned earlier, BC Hydro will be coming back in the fall with another series of consultation topics, including reservoir clearing and worker accommodation. Are there any general questions or comments?
- Q: Vi Lambie: When will you look at the environmental impacts on things like riparian zones?
- A: Siobhan Jackson: The consultation the BC Hydro is doing now will help us define our project and mitigation plans. Our wildlife impacts will be included in the Environmental Impact Statement to be submitted to the regulators early next year. These topics are helping us get to that place.
- C: Judy Kirk: To add, studies are underway in all of these areas and will continue. They will be completed and BC Hydro will apply for environmental certification and the public will have a chance to comment on those study results.
- C: Siobhan Jackson: Baseline studies will be on the website and will be updated as they are completed. The results will be included in the environmental impacts statement available in early 2013.
- C: Dave Conway: I want to make sure I understood you that there will be no change in the Williston Reservoir planned because of the Site C project operation.
- C: Andrew Watson: No change to the water levels. To be clear, during the construction of Site C in order to manage floods there will be some operational considerations but it will be within the diversion period and within the operating and climatic norms. We are permitting Site C under the existing water license at Williston.
- C: Dave Conway: We operate in a range from 2,205 feet in elevation at full pool to 2,150 feet at low. We can't go lower than 2,150 feet without permission from the water controller and speaking to the community 6-months in advance of wanting to do that, and we can't go above 2205 either. That's the operating regime we are working in.
- Q: Sam Davis: Have you thought of creating any marsh areas?
- A: Siobhan Jackson: Our wildlife team is looking at mitigation options. The Watson slough is flooded by the reservoir and we are looking at potential compensation lands. I don't know if they've landed yet but those are the types of things we'll do.
- Q: Sam Davis: Have you thought of introducing any kinds of vegetation to stabilize silts and fisheries habitat?
- A: Siobhan Jackson: I can't answer what the fisheries are looking but they do pay attention to habitat. The littoral zone will be very shallow and we think it will be able to grow up fairly well. On the green armoring side, we are being very intentional on why we are removing vegetation and whether it is a net benefit. That's an active consideration that we are looking at whether it's best to leave some planting in place for stability. We are clearing, but we are looking at site specific considerations.
- C: Andrew Watson: We are looking for opportunities where we have engineering works, like the almost 30 kilometres of highway realignment, which can be combined for a more robust mitigation.

The berm, might have not just protection against erosion but there may be areas that enable actual vegetation on it.

- Q: Sam Davis: Why is the proposed dam site so close to Moberly Lake?
- A: Andrew Watson: The dam site is favourable for a number of reasons. One is the geology, we have bedrock on both banks. Another reason is the right bank terrace that enables the construction of the powerhouse and spillway on the flat terrace. If you move up the Moberly there are very steep slopes which would require large excavation to make it safe. The next best site upstream is at Wilder Creek, there is a terrace there as well, but the cost associated and the lost energy makes it not a preferred solution. As part of the environmental assessment we is look at alternate dam sites. We've looked at a comprehensive list of a series of smaller dams, next best upstream and downstream site, two dams versus one dam, and many other options we look at the social, environmental trade-offs for those. Right now, our proposals out as the EIS guidelines have listed out those types of assessments. There are some reports on our website that might give you more information.
- Q: Tom Briggs: When I moved here in 1974, I would come out of the mill at 4:00 p.m. and go up the north and go fishing and catch 2-3 rainbow trout and be back by 5:00 p.m. for supper. It's encouraging to hear the operating level is 1.8 metres. It's not just the lake; it's the streams that end up being puddles and the siltation mucks up the water for fish. At 55 mile, you used to fish in two pools and stand there and they were black with fish. It's going to be better with Site C because of the small fluctuation.
- A: Siobhan Jackson: With a change from a river to a reservoir it will take a bit to return to equilibrium. We do look at site specific spots. Some of the things they do are to dredge them out so siltation doesn't just stop when it hits the reservoir.
- Q: Liz Blackburn: My comment is that with all the years I worked with 2150 and BC Hydro, I can really appreciate the changes that have happened with the consultation process, with legislation and studies and assessment. Unfortunately, we have to live with the results that happened back then, but moving forward and seeing improvements in the process. With all the legislation and studies, I can really appreciate the process now.
- Q: Rick Parent: I appreciate your effort as well. It's very refreshing. My question for Dave is that does BC Hydro have any plans for the future? If you push those 50 years from now, are the plans to go Sites C, D, E, F? Or planning something else that will have less impacts on the environment?
- A: Dave Conway: BC Hydro has no other flood reserve on the Peace River other than Site C. The flood reserve farther down was removed when we went through the process related to Site C 1980s that was for Site E. In 2010, the BC government brought in the Clean Energy Act that says the Site C dam will be the last large dam that BC Hydro will construct.
- Q: Rick Parent: Can you take the mechanical energy and convert it to electricity at zero emissions?

  A: Andrew Watson: No, we are adding new supply that isn't hydro in the form of wind and solar. It's economically viable. It's not firm but it's viable. Solar is not economically feasible.

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	Project Definition Consultation, Spring 2012
STAKEHOLDER	Mackenzie – Stakeholder Meeting
MEETING	April 13, 2012, 10:00 a.m. – 12:00 p.m.
	Mackenzie Recreation Centre – Multi-Purpose Room
	400 Skeena Drive
	Mackenzie, B.C.

Q: Rick Payne: What provision do you have against earthquake damage?

A: Andrew Watson: We look at extreme seismic loads. We look at worldwide earthquake analysis and are one of the considerations in the updated design of Site C. We look at design in-depth. One of the learning's from Japan was a cascade of unforeseen things. The auxiliary overflow is a backup system in case our gated system couldn't operate; Site C is designed so that it would go into the auxiliary overflow. We are using very high seismic loads to the magnitude of roughly a 6.5 earthquake quite close to the site. We also look at different types of earth quakes with very high internationally recognized standards.

Dave Conway wrapped up the meeting and encouraged participants to complete the feedback form and asked participants to encourage friends and others to participate.

The record notes that the meeting ended at 12:05 p.m.

MEETING DETAILS	BC Hydro Site C Clean Energy Project
	Project Definition Consultation, Spring 2012
STAKEHOLDER	Fort St. John – Stakeholder Meeting
MEETING	April 16, 2012, 4:00 p.m. – 6:00 p.m.
	Quality Inn Northern Grand – Grand 1
	9830 100 <sup>th</sup> Avenue
	Fort St. John, B.C.

PURPOSE	Notes from a multi-stakeholder meeting for the BC Hydro Site C Clean Energy Project held with stakeholders and representatives of the Site C Project on April 16, 2012 at Quality Inn Northern Grand, Fort St. John, B.C.
FACILITATOR	Judy Kirk, Kirk & Co. Consulting Ltd.
ATTENDEES	Cynthia Aasen Wade Aceson, Alpha Safety Eric Bell, Northern Legendary Lloyd Bentley, Rancher Kathy Bentley, Rancher Arlene Boon Ken Boon Bruce Dietz Arlene Dietz Brian Dyck, Peace Valley OSB Joyce Fleck Nima Ghiasi, McElhanney Tim Gray, Quest Helicopters Jason Griffiths, First Response Warren Janes, Lakeview Inn & Suites Mark Leslie, DGS Astro Paving Aaron Lloyd Lita Powell Don Oster, Executive Flight Centre Kathy Miller Dzengo Mzengeza, NEAT Rick Koechl Mike Kroecher Ibrahim Kurtoglu, Anderson Water Services John Sam, JB & Star First Aid Services Wayne Sawchuk, CPAWS Dwilla Schafer, Des Ventures George Smithison D. Stedle Neil Thompson Lynne Thompson Ryan Stark, Tax payer Daryl Stark A. Ritchie, Spectra Chris Wagner

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SITE C PROJECT TEAM ATTENDEES	Dave Conway, BC Hydro Siobhan Jackson, BC Hydro Judith Reynier, BC Hydro Andrew Watson, BC Hydro Don Wharf, BC Hydro Mike Porter, Site C Project Team Melissa Holland, BC Hydro Emilie O'Genski, Kirk & Co. Consulting Ltd., Meeting Recorder
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**KEY THEMES** 

### Workforce

- Participants expressed an interest in where the labour workforce would come from and whether local businesses would have a chance to bid on Site C contracts.
- Participants asked questions about how workers would be housed and the impact of workers on community services and infrastructure.

## **Impact Lines and Land Use**

- Participants asked questions about land use within the impact lines and communication to property owners.
- Participants expressed concerns about the modelling that BC Hydro is using to predict erosion and impact lines.
- Some participants expressed concern about whether BC Hydro is adequately considering the likelihood of landslides.

## **Project Costs**

 Participants expressed an interest in knowing what is included in the \$7.9 billion cost estimate, particularly whether land purchases and project contingency costs were included.

## **Air Quality**

• Participants asked about potential changes to air quality from construction activities at the 85th Avenue Industrial Lands and burning of some cleared materials.

The record notes that the meeting was called to order at 4:00p.m.

**DISCUSSION** 

(Abbreviations will be used and mean – Q: Question, A: Answer, C: Comment)

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## 1. Welcome and Introductions – Judy Kirk

Judy Kirk welcomed participants to the multi-stakeholder meeting, explained the format of the meeting and introduced the Discussion Guide and Feedback Form. Judy informed participants that the meeting was being recorded for accuracy. Roundtable introductions followed.

## 2. Review of Consultation Discussion Guide and Questions and Answers – All

Dave Conway reviewed the introduction to the Discussion Guide, including ways to participate in the consultation and the schedule of open houses and the list of information items and consultation topics.

Dave Conway reviewed BC Hydro's energy planning, design of Site C and key project benefits.

- Q: Ken Boon: Does the Integrated Resource Planning take into account Liquefied Natural Gas (LNG)?
- A: Dave Conway: Yes, it does. If you recall the load forecast from 2008 to 2009 showed a growth of 20-40% load growth over the next 20-years, now our new load growth demand takes that into account and we are looking at 50% growth.
- Q: Ken Boon: But LNG isn't confirmed yet?
- A: Dave Conway: That's right. That's why it's a forecast.
- Q: *Mike Kroecher*: I've got here the Project Description May 2011. I noticed that on page 15, it states that "the *Clean Energy Act* passed in 2010, prohibits, with the exception of Site C, building any other large hydro projects on our river systems in British Columbia". My question is if Site C is that great, if large hydro is so good, why would the BC government prohibit future large hydro?
- A: Dave Conway: I'm familiar with what you referring to in the Act. However I can't speak to the Act, you'd have to talk to government to explain why they put the Act in place.
- Q: Mike Kroecher: This document was put out by BC Hydro and refers to the Clean Energy Act. Why would you refer to something in a document and then not be able to deal with questions about that?
- A: Dave Conway: We work within the Act. You're asking me for my interpretation and I can't answer that question. You need to direct that question to the provincial government.
- A: Mike Kroecher: The answers from the B.C. government do not deal with what I'm asking. They ignore my points and my questions. Why can't you give me answers? My questions and others' questions go unanswered. It's not democratic. I think I've made my point.

Melissa Holland provided information regarding transmission update.

- Q: Rick Koechl: Is the transmission line cost part of the \$7.9 billion project cost that I found online?
- A: Andrew Watson: Yes, transmission costs are included in that number.

Siobhan Jackson provided information on planning underway regarding worker accommodation and mentioned that worker accommodation will be a consultation topic in the fall 2012 consultation.

Q: Lita Powell: One of my questions that I don't see addressed in this Guide is that while it's wonderful to have these services off-site, what about policing for this city? You add 1000 workers and we pay 90% of policing costs. Who is responsible for that cost?

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- Q: Judy Kirk: Is it a two-part question Lita? One, what happens with policing and two, who is responsible for paying for it?
- A: Lita Powell: Yes.
- A: Siobhan Jackson: One of the considerations in terms of workforce accommodation planning, is trying to put some numbers around whether it's single workers in camps or workers here with their families. That helps us get an idea of the potential population increase that the project might bring. For the RCMP planning we are looking at population ratios. If the project increases the population, then we would look to add policing resources as mitigation. Workforce planning helps us understand what the potential population impact might be and that population impact translates not just to policing, but other services as well. More police could be a mitigation if that's what the estimates show is needed.
- Q: Lita Powell: Whether it's 500 workers or 500 families, we are maxed out with our current RCMP levels. As a tax payer, I don't want to pay more for policing.
- A: Siobhan Jackson: Another aspect that we are looking at is the on-site security considerations.
- Q: Lita Powell: Well it should be, it's your project.
- Q: Ibrahim Kurtoglu: Those workers will come from outside to work on the dam?
- A: Siobhan Jackson: One of the components of this project will include a worker camp. We are also looking at other short-term accommodations such as RV sites for those that like to travel with their trailers. We are also looking at in-town housing to attract more workers with their families that can set up long-term.
- Q: *Ibrahim Kurtoglu*: Do you have a number of workers? I'm worried about migrant workers taking local opportunities.
- A: Siobhan Jackson: We want local participation and we anticipate local participation but we don't have a total. It's very difficult to predict.
- Q: *Ibrahim Kurtoglu:* I have heard that there could be 2,000 people in camps and they are not allowed in the towns.
- A: Siobhan Jackson: We are coming back in the fall for a consultation with more of those details. The peak labor force will be around 1,700. We are thinking about how we can accommodate short-term peaks. With respect to where the camp is, we will have shuttle buses to ensure they can get to town and participate. We will be using shuttles from the camps to the site itself for safety reasons.
- C: *Judy Kirk:* If you have concerns about workers or outside workers, there are comments sections in the Feedback Form if you want to add something.
- C: *Ibrahim Kurtoglu:* There just aren't any numbers out there. I feel like you're just flying people over like Fort McMurray. I'm hoping this project will help the locals. There is just no information about opportunities. That's what I'm wondering.
- C: Siobhan Jackson: Those are good questions. It's hard for us to say how many local hires there will be. We are looking at what the appropriate mechanisms are to make sure there are lots of opportunities. We don't want to have to house people in-camp if it can be avoided but it's a busy region for sure. In the camp side we are watching Tumbler Ridge and Chetwynd. We want to strike a balance.
- Q: Dzengo Mzengeza: I'm concerned about the community services and the support for people who provide services to the community who rely on donations and grants. I'm worried about people

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with drug and alcohol problems could overtake our current ability to help the community that could be impacted by these workers.

A: Siobhan Jackson: As part of the environmental assessment, we will be looking at community services and what the added pressures are and if we see a connection then we'd look at what mitigation we can address. Northern Health has been helpful in our planning so far.

Andrew Watson provided an overview of the preliminary impact lines and land use around the proposed reservoir. Mike Porter reviewed the four impact lines and proposed shoreline protection at Hudson's Hope.

- Q: Arlene Boon: In regards to the pink stability line, is BC Hydro contacting the landowners that are in that area?
- A; Judith Reynier: Yes, we have contacted all property owners in that zone. I believe we've met with, or at least had a telephone conversation with, about 95% of them. About 5% of people we have not been able to get a hold of.
- Q: Arlene Boon: What is the total number of impacted property owners? I'm talking parcels.
- A: Judith Reynier: I'll have to get back to you about specific parcels. I can tell you there are 90 land holdings impacted. If you've got more than one parcel then that's a land holding.
- Q: Arlene Boon: If someone has two corridors, you are counting that as one?
- A: Judith Reynier: Yes, that's right counting that as one land holding. It's about 90 families.
- Q: Ken Boon: If you had a house that is in that stability zone, who would be liable if BC Hydro determined it's safe but then it becomes unsafe years later? Who is liable? And who pays for moving your house, if you do have a house that you want to move?
- A: Judith Reynier: If you have a residence in the stability impact zone, and it was deemed unsafe for it to stay there, BC Hydro would pay to have it moved on the property if that is technically feasible, or pay for the depreciated value of the improvement. If an owner elects to stay, it would be on the condition that they sign the statutory right-of-way document, which they would be paid for, and part of that would be an acceptance of the liability to stay.
- Q: Ken Boon: If it is deemed safe to stay, but 20-years later it's not safe, then BC Hydro would still pay for moving?
- A: Judith Reynier: There is a huge array of different situations that could occur. For example, say the house would be safe to stay for 5- or 10-years. We would write that into the document and there would be agreement about what would happen at the end of that time, for example, that we would pay the owner for loss upfront or later. There are a lot of different situations out there.
- Q: Rick Koechl: In regards to the stability impact lines, is that something BC Hydro will compensate the owners of the land for?
- A: Judith Reynier: Yes, that's right. The area that is flooded would be purchased in fee simple and the area between the flooding and the stability impact line, BC Hydro would purchase a statutory right-of-way.
- Q: Rick Koechl: Is the cost of compensation included in the \$7.9 billion cost? We don't know exactly what the impact is going to be so how is it factored into the cost already?

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- A: Judith Reynier: There was an estimate done a year ago which was high-level and that's part of the \$7.9 billion.
- Q: *Mike Kroecher*: Mike Porter's explanation of the flood and wave impact lines didn't make sense to me. I want him to explain what he means by flood allowance.
- A: *Mike Porter*: The reservoir would be operated 461.8 meters but if there is a large wind storm in the valley and it creates waves in the reservoir, those waves can run up to a higher elevation. That is the allowance that is taken into consideration. The second part is that if there is a large rainfall and snow melt that causes flooding in the tributaries that can raise the elevation of the reservoir as well for a short period of time.
- Q: *Mike Kroecher*: What you are saying is that the flood allowance could be as much as 4 metres higher than the reservoir level?
- A: *Mike Porter*: That's correct. That's taking into consideration an extreme combination of events like a 200-year windstorm at the same time as a 1,000-year flood. It's a low likelihood of happening.
- Q: *Mike Kroecher*: So the likelihood exists?
- A: Mike Porter: It is a small likelihood but yes.
- Q: *Mike Kroecher*: If it the reservoir is already 4-metre above normal level and then in the event of a major landslide, then the level could be a lot higher?
- A: *Mike Porter:* No, I don't think so. There is a consideration again for some locations where there is a potential for rapid landslide that could trigger a wave and those are indicated by the wave impact line. But in terms of the volume of debris from a landslide into the reservoir itself and raising the water level, that is something that is only centimeters and wouldn't add to this allowance.
- C: Mike Kroecher: I made a statement here about slides and you mentioned a major slide being an extremely unlikely event. In 1973, the Attachie Slide hit and blocked the Peace River for about 10-hours. That must have been millions of cubic metres of debris into the river. You call it an extremely unlikely event but this happened in 1973 and there is evidence that major slides have happened before that at various times. A slide like that would have substantial waves, have you calculated the height from an event like that?
- C: Mike Porter: Events like the 1973 Attachie landslide are considered in our planning. When we look at the area around Halfway River, that's a large part of the input there and when we look at Lynx Creek and Farrell Creek, the size of the landslides and the assumed velocity that go into those predictions are greater than anything that has been observed. To answer your question, the 1973 Attachie slide has provided input into our predictions.
- Q: *Mike Kroecher*: What is the estimate of how high the wave would be if there was an event like Attachie?
- A: *Mike Porter*: It depends on where the slide occurred and in what part of the reservoir. If we took the exact same events from 1973, the wave could run-up in the order of 20-metres on the opposite bank.
- Q: Ken Boon: I wasn't clear about whether BC Hydro will hold a right-of-way on all the impacted lands?
- A: Judith Reynier: Yes, that's correct.

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- Q: Wayne Sawchuck: Mike Porter, I understand that at the beginning of your talk, you've been monitoring for thirty to forty years?
- A: *Mike Porter*: There have been geotechnical studies since the 1960s all the way through the 1990s. As part of that work, instrumentation was installed to monitor ground level and slopes. Some of those instruments have been continued to be monitored, in addition to our new instruments over the past 12-14 months.
- Q: Wayne Sawchuck: If BC Hydro has been monitoring since the 1960s, which is well before the Attachie Slide, did BC Hydro monitoring predict the Attachie Slide?
- A: *Mike Porter*: I don't think that area was monitored at that time, a lot of the investigations and monitoring at that time were focused upstream.
- C: Andrew Watson: The detailed investigations for Site C really started in about 1976, so after the Attachie Slide occurred, before the investigations were focused upstream.
- Q: *Ken Boon*: When you say that 20-metre waves could be caused by a slide, is that vertical 20-metres?
- A: *Mike Porter*: It's the potential run-up on the opposite shore. The wave might be less by the time it reaches the shore but the run-up onto shore is usually greater than height of the wave.
- Q: Wayne Sawchuck: These landslide generated waves are dependent on the shape of the reservoir. Have you done any modeling to predict the various waves that could be generated by slides?
- A: *Mike Porter*: Yes, we have. There has been a combination of physical models, where scale models have been created to assess the topographic additions and their impact on wave run-up, and numerical modeling to look at those same effects.
- Q: Wayne Sawchuck: So the modeling should have predicted the slide east of Bear Flats? That might even be 10-50 times larger than the Attachie Slide. What would the wave be for that event?
- A: Mike Porter: I think the landslide that you are referring to is the Cache Creek slide, which was largest landslide in the area and was in shale bedrock. There is a big difference between the Cache Creek which was a bedrock slide, and the Attachie Slide which occurred in silts and gravels above the bedrock. The primary concern is not only the volume of the slide but the speed of it entering the reservoir. There is a velocity threshold that you have to exceed to trigger a wave like Attachie. These bedrock slides in the shale can move quickly but not quick enough to trigger these kinds of waves.
- C: Wayne Sawchuck: That is highly questionable. If you look at the volume of material that would have come down there that would have completely blocked the river to a height of 100 metres that volume of material is going to create a 'slosh' effect even if it's moving slow. I am highly doubtful if the dam is taking that kind of effect into account. The geology all along that area very unstable both in the bedrock and in the sands and gravel below and I think that is an issue that haven't been looked at to the depth it needs to be. It's a major issue. I was angry to read in the Guide "extremely unlikely landslide events". That's not actually the case, it's completely likely. What's unlikely is the frequency or rather the frequency is low. This is disingenuous and the wording needs to be tightened up.
- C: Judy Kirk: Thank you for your comment.

- Q: Wayne Sawchuck: The Fort St. John and Dawson Creek Land Resource Management Plan (LRMP) recommended a protected area alongside the reservoir area, which is the Peace-Boudreau area. The Canadian Parks and Wilderness Society is concerned about compensation or the destruction of the low elevation lands including within that reservoir, both for recreation potential, and the wildlife and ecological values encompassed there. I want to know if BC Hydro has looked at ecological compensation, including the establishment of other protected areas downstream or elsewhere to compensate for that? I realize it's slightly off-topic but wanted to put that on the table now.
- A: Siobhan Jackson: We are looking at land use overall as part of our environmental assessment and are aware that the LRMP has made a recommendation on a protected area, so we are taking that into account. We have talked to the Ministry of Environment several times about plans for that area. For the wildlife part of the question, the wildlife assessment is being taken into account regardless of land use designation. We are looking at wildlife impacts and appropriate mitigation solutions. We can't nominate provincial land or crown land use but we can make recommendations.
- Q: Lita Powell: Mr. Porter, was it BC Hydro's monitoring equipment on top of the Attachie Slide in the 1980s? And was it BC Hydro's responsible for putting in stoplights at the Halfway River bridge?
- A: Andrew Watson: Yes, it would BC Hydro investigations done on the Attachie Slide area in the 1979-1980. The monitoring opposite was done by the Ministry of Transportation and Infrastructure.
- C: Lita Powell: I recall that up until 6 years ago, the sites above Attachie were continuously being monitored. Last time I flew over it, there was about an 8.5-9 foot fissure that had expanded in the last 10 years. It makes me believe that the potential for a slide is more likely than not likely. I wonder if that area is adequately being monitored.
- A: Andrew Watson: That is one of the sites where we did drilling-based investigations.
- A: Mike Porter: This is an area where we have carried out additional investigations over the last 12-months. That is a site we would continue to monitor. To clarify, when we say that the impact lines take into account unlikely events, they also take into consideration events that are expected to be more frequent and smaller as well. We are considering both the likely and unlikely events.
- Q: Arlene Boon: If this project proceeds, and God forbid it does, at what time after the reservoir is filled will be public able to use it due to all this instability lines?
- A: Andrew Watson: There are two issues. One will be carefully watching the shoreline and the other is debris. We recommend that for one full year we don't put boat launches in. After one year, the launch near Hudson's Hope would be opened. We would then incrementally open access to the reservoir, with a recommendation that the reservoir be full use within the first few years. That's our recommendation; Navigation Canada is the regulator and their message to us is that it is shifting from restrictions to communication. They will be pushing us to open earlier.
- Q: Arlene Boon: If there is area of concern, like the Halfway, you'll keep the public off indefinitely?
- A: Andrew Watson: If we think there is a sufficient risk there it might be signage. That will be based on the long-term monitoring results. The strategy is to communicate those hazards.

Don Wharf reviewed the Highway 29 preferred realignments or corridors in the six segments.

- A: Rick Koechl: Is the highway realignment part of the \$7.9 billion project cost?
- A: Don Wharf: Yes it is.
- Q: Rick Koechl: I am just curious about that when you still have geotechnical work left to be done.
- A: Don Wharf: The estimate provided was done at a high-level with contingency built into it.
- Q: Rick Koechl: What is the over-run you are accounting for? 10%, 20%, 30%?
- A: Don Wharf: We work within the budget and looking for ways to stay within that budget.
- A: Andrew Watson: In Stage 2, we looked at the four segments of the highway that would be flooded and we started to look at reservoir shoreline impact lines. Those sections of road, like Farrell Creek East, are currently under some risk. The reservoir is not going to improve things. So we first put a contingency reserve for rip rap along there but when going through the work, we found the better solution was to move the highway back. So those we in there, constructing a berm versus moving a road is a trade-off.
- Q: Rick Koechl: So what is the contingency? Give me a percent...how much over and above would you be calculating over what's in there now. \$7.9 billion is what you're playing with how much more have you allowed for it something doesn't quite work out and you have to calculate it into a new plan?
- A: Andrew Watson: I don't have those numbers with me.
- Q: Judy Kirk: Are you asking whether there is money in addition to \$7.9 billion or contingency within \$7.9 billion?
- C: Rick Koechl: That is what I'm not certain of and want clarification on.
- A: Andrew Watson: I don't have the numbers with me but I can get back to you on that the overall project contingencies. There are two things, there are overall project contingencies and then there are site-specific issues. The highway was not a new issue those sections were flagged. What wasn't known was the best way to address them. Right now in the project cost we have a conservative footprint. The geo-technical investigations will determine if the entire stretch needs to be realigned but it may not. Right now the project cost and footprint allows for the entire realignment; we have accommodated for those cost risks.
- Q: Chris Wagner: I'm looking at the maps and I'm concerned about where you are placing the highway. My map shows the proposed erosion impact lines and stability lines and you've got roadways within those lines. I'm concerned that you are going to build the roads where you expect the land to slide away. What is that reasoning?
- A: Andrew Watson: In some areas, there is little indication that the project will change the existing ground conditions. The stability zones are based on allowing residential development and risks associated with that. All of these realignments have been reviewed with Ministry of Transportation and Infrastructure and the areas that need to be realignment some of them have additional erosion protection and some of them are in areas where it's safe to allow residents to stay.
- Q: Blaine Meek: Have you identified where the alignment will be west of Cache Creek? Where will you realign the highway? I have four homes there and there were two realignment options before and

now there is just one option presented here. How can you have a price tag already? Why haven't you talked to me?

- A: *Judith Reynier*: Blaine, we had a meeting in Stage 2 to discuss the various options in that area. More recently, Tony Duffy was in touch with you.
- C: Don Wharf: We met with Blaine a week and a half ago and presented our preferred alignment. It does impact residences in his land. We suggested a site visit to walk through the property and set-up potential geotechnical investigations, likely in May. There was a different corridor and that alignment would significantly sever the agricultural lands east of your property. There are specific property owner issues we are working through and there could be shifts in that alignment to address localized alignments subsequent to further archeological and geotechnical investigations. The future design phases will determine. We have done high-level estimates that take a number of factors that could affect the cost of the highway.
- Q: *Ken Boon*: Does the \$7.9 billion project cost include all purchase of private land for highway and impact lines?
- A: Andrew Watson: Yes, it does.

Siobhan Jackson reviewed the proposals for recreation sites and public safety and use of the proposed reservoir during construction and operations

- A: Mike Kroecher: I have studied the May 2011 Project Description Report and I see a huge amount of conflict by what you are saying. I will read you some quotes. On page 49: "Landslide terrain includes long stretches of the valley walls that are entirely shaped and altered by multiple and overlapping lobes of slide debris and landslide scars (Thurber 1979)." On page 47/48: the valley varies from up to five kilometres wide where it is flat-bottomed with prominent terraces, to only about one kilometre wide with V-shaped and canyon-like forms (Thurber 1978)." This indicates that the slopes are up to 60 degrees. Then you go on to say that the increase in reservoir shoreline would allow existing activities, such as boating, beach use and picnicking to continue. I see a huge contradiction or conflict in that. If there is instability and waves up to 20-metres, how can you make statements that existing recreation activities continue?
- A: Siobhan Jackson: The citing of recreation facilities takes into account the impact lines and considering of safe use areas, which is why we don't have one at Halfway River. Our final locations will be determined within the first year of reservoir formation once the observation of actual movement and changes is happening. Monitoring through the slope work would be done as it is through natural systems, as well as reservoir systems around the province, and any hazards would be identified. We have a public safety management plan at all of BC Hydro facilities and where hazards are identified, they would be appropriately marked and communicated. To finish, we are proposing a third BC Hydro-managed site at Hudson's Hope, which would tie into shoreline trail downstream along the berm and tie into the existing trail to Hudson's Hope. Boats will be able to stop into Hudson's Hope. The other two components are the sites that are maintained by the River Rats Club, and we propose a compensation approach where we allow those clubs to continue to manage the area do. They do a good job and we'll work with them to support what they do. Similarly, municipal parks are a popular spot for fossil hunting and fishing. Those shoreline areas

will likely be under the water and we'll provide funds for Hudson's Hope to enhance other areas around there.

- Q: Unidentified: I want to clarify that there will be a 7-metre rise in the water levels at Alwin Holland Park?
- A: Siobhan Jackson: It's actually about 5-metres and downstream it could be about 9-metres.

Andrew Watson and Duane Anderson reviewed 85<sup>th</sup> Avenue Industrial Lands and the multi-use of this site for the Site C project.

- Q: Arlene Boon: What is the purchase price for 85<sup>th</sup> Avenue Industrial Lands?
- A: Judith Reynier: It is included in the \$7.9 billion project cost. We purchased 110 acres that was listed for sale and later the owner of adjacent lands to the west asked if we would purchase his two parcels as well. The sum total of all was approximately \$12 million.
- Q: Ken Boon: Doesn't BC Hydro have a passive land acquisition policy? Is that how this land was purchased?
- A: Judith Reynier: Yes.
- Q: Ken Boon: How would this man know that you wanted the property I wonder?
- A: Judith Reynier: In this case, we were drilling in the area and it piqued the owners' interest and he asked if we wanted to buy the land.
- Q: Lita Powell: In 2002-2003 there was a lot of air modeling done for the PVOSB (Peace Valley OSB is a joint venture OSB mill owned by Canfor Corp. (Canfor) and Louisiana-Pacific Canada (LP)). There was a lot of concern that the plant would be adding particulate to the air and it was determined that our air shed at that point could not carry any more particulate matter. If we are moving 2.3 million cubic metres of earth, that is dust and that goes into our air shed. What happens to our air quality? As a resident of Taylor, we are going from 6-months of fog to probably of 11-months of fog at a time when the highway is going to be twinned to 4-lanes. We already had a potentially devastating car accident at the tracks, and I don't see any plans of control of traffic and you can't mitigate the fog. All I see is around mitigation on the conveyor belt is the word could and that doesn't give me any confidence. Unfortunately, I do have to leave now.
- C: Duane Anderson: Air quality will definitely be a concern of ours and we are looking at. One advantage of the conveyor is it will run off the Hydro distribution network. It will displace trucks from the area, so that's a benefit from air quality. Another concern of people in the area, and quite rightly, is dust in the air. The nature of this material is clay and moist. It's got 6-8% moisture content. The actual material won't contribute hugely to the dust problem. During the creation of the site there would be dust and that will be mitigated by use of dust control measures.
- Q: Mike Kroecher: Since air quality has been mentioned, I noticed that there will be about 550,000 cubic metres of waste vegetation. Burning is also mentioned here several times. Many of us are very concerned about air quality. And since air quality is not being monitored at this time, and we have a problem with oil and gas, I would like to know how you plan to get rid of 550,000 cubic meters of waste material.

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- A: Siobhan Jackson: Regarding the forestry and clearing, we are working on a clearing plan, including debris management and we will come back to you in the fall with more information. Burning will be an option but we are looking at the least disruptive way to manage this and will have a smoke management plan. We are monitoring air quality and we have eight stations in total in the valley, near Fort St. John and Old Fort.
- Q: *Ibrahim Kurtoglu*: I was looking at the location of 85<sup>th</sup> Avenue, and it's very big, and wondering what was the reason why you chose right in the town? It could have been further away.
- A: Duane Anderson: Andrew Watson spoke about the regional geology of the area and the presence of a till ridge that extends out from Fort St. John towards Charlie Lake, sort of parallel to the Alaska Highway. A lot of what I talk about when we are discussing why here, is the technically characteristics of the parcel land. We looked at several other options. All of the other options, the actual was not as good for the construction of the dam. There are other trade-offs and impacts with distance material farther from the dam, amount of agricultural land impact, distance to haul material and number of people impacted. We factor all of that into our selection of the site. Primarily, the technical quality of the material in that area was the best.
- Q: Ester: Does the conveyor start right at this site and have the property owners below been consulted? The ones whose land it goes through?
- A: *Judith Reynier*: Duane and I have met with all property owners whose land could directly be affected.
- Q: Ester: How high will the conveyor belt be?
- A: *Duane Anderson*: It is about chest height.
- C: Judith Reynier: We did an information drop inviting people to the open house in the area as well as to call and conduct meetings with people in the area.
- Q: Ester: How will you cross Old Fort Road?
- A: Duane Anderson: It has to cross Old Fort and 240 Road. The conveyor will cross underneath those roads in a culvert so we can avoid public impacts.
- Q: Blaine Meek: What will BC Hydro do with the waste material from the river site?
- A: Duane Anderson: There is material at the dam that won't be usable. We have identified a number of areas for relocating that material in the footprint, in low-lying areas upstream and downstream.
- Q: Blaine Meek: I can imagine there is going to be a huge pile of silt and garbage. Where do you truck that to?
- A: Duane Anderson: It would stay within the dam site in low-lying areas where there is space to put it. It would be capped and protected with other materials.
- C: Andrew Watson: Where it makes sense, we would put it under the reservoir. There will be some small relocation areas. The left bank excavations will be going into the ravine downstream.
- Q: Blaine Meek: The till is 25% of the core? Where is the other 75% coming from?
- A: Andrew Watson: Most of the material will come from the immediate dam site. The other material will come off-site from rip rap upstream. There are no hard and durable rocks near the valley. The rip rap would come from a quarry in the Rockies called West Pine. We are looking at either train or truck transportation.

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- Q: Chris Wagner: I have concerns about worker accommodation. What social impact studies have been done and or are planned for what the impacts will be on Fort St. John and surrounding areas. What about studies conducted in the camps themselves? How do we know mitigation strategies will reduce those impacts?
- A: Siobhan Jackson: The environmental assessment includes a number of studies in areas such as socio-economic. Worker health and worker life studies will be done and will follow standards set by the province such as WorkSafe BC. A number of studies are being looked at in terms of camp life. We are adopting typical camps used around the province and the country. The EIS-G that are out right now with the BCEAO and CEA describes our approach, including the wide-range you talked about. I want to direct you there.
- Q: Chris Wagner: The studies haven't been done yet?
- A: Siobhan Jackson: We are in the process in developing our environmental assessment and we are doing studies on all these things right now. The environmental assessment timeline for us to complete this work is coming as the EIS the BCEA and CEA are in the early stage of defining what it needs to include. We have made proposals on what it should include and we will adjust our studies after the final say from the environmental assessment agencies. Our timeline for this to be completed in early 2013.
- Q: *Mike Kroecher*: It states in the Project Definition Report that burning of debris is possible provided it follows provincial and federal standards. What are the standards and how will they be enforced?
- A: Siobhan Jackson: They are B.C. standards that include open burning and smoke and they are the same guidelines that the Ministry of Forestry follows today. On an environmental management basis, we would look at what forestry operations do and look at air quality day of these activities.
- Q: *Mike Kroecher*: What are they?
- A: Siobhan Jackson: I can follow up and provide those with you.
- Q: Unidentified: If there is a camp for workers, is there a site proposed?
- A: Siobhan Jackson: Yes, there are potential sites on the north and south banks. On north bank, it would on BC Hydro owned land, a site on south bank was been identified but in both cases they will be close to the dam site. In the fall, we will be coming back with more information on worker accommodation.
- Q: Ken Boon: Just on the camp issue, will both the camps on north and south banks be serviced from Fort St. John?
- A: Siobhan Jackson: We'll put a contract out for a camp operator and they would build, operate and maintain the camps as per their proposal to us. At this point, procurement hasn't been defined.
- Q: Arlene Boon: I want to know, what is the total cost to date of this project? From all the studies from 1970s, 1980s and up to now, I want to know the total cost.
- A: Andrew Watson: I don't know we'd have to get back to you on that.
- Q: *Ibrahim Kurtoglu*: You are doing drilling recently and I own a local business as a drilling company. I want jobs, where are those companies coming from and why haven't I heard about it? No one called us. Before this meeting, I didn't know about this.

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- A: Andrew Watson: We did two rounds of public proposal and they were on BC Bid. Anyone on our business directory will be notified.
- Q: Ibrahim Kurtoglu: Are you not telling the people? I can't always watch BC Bid.
- A: Andrew Watson: I can talk to you about that offline.

Dave Conway wrapped up the meeting and encouraged participants to complete the feedback form and asked participants to encourage their friends and others to participate.

The record notes that the meeting ended at 6:20 p.m.

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PURPOSE	Notes from a multi-stakeholder meeting for the BC Hydro Site C Clean Energy Project held with stakeholders and representatives of the Site C Project on April 17, 2012 at Quality Inn Northern Grand, Fort St. John, B.C.
FACILITATOR	Judy Kirk, Kirk & Co. Consulting Ltd.
ATTENDEES	Andy Ackerman, Myriad Consulting Lisa Antoniel, Scotiabank Bob Batchelor Karen Mason Bennett, NEAT Harold Bergman, Petro-Canada Lavena Brekkas Reid Brekkas Diana Burton, City of Fort St. John Gayle Clark, M.L.A. Kyla Corpuz, Northeast News Pat Cole, Telus Bonnie Cote, Remax Action Ruth Ann Darnall, PVEA Ken Forest, PVEA Hardy Friedrich, BC Oil and Gas Commission Moira Green, Chamber of Commerce NP Regional Airport Randal Hadland Elliott Harder, Harder Associates Engineering Consulting Inc. Dan Hoffman, NPRG Club Brian Holstrom, EECOL Electric Jeanette Karasick, Work BC Wayne Kelly Dennis and Janice Large, Large Tracks Contracting Ltd. Natasha Leslie, Scotiabank Jeff Liedtle, Focus Geomatics Don Loewen, D. Loewen Enterprises Ltd. Andrea Morrison Roy Mumby, Nela Norman Venutres Darrell Pasichnyk, DGS Astro Paving Graham Suther, MFLNRO Eliza Stanford

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SITE C PROJECT TEAM ATTENDEES	Dave Conway, BC Hydro Siobhan Jackson, BC Hydro Judith Reynier, BC Hydro Andrew Watson, BC Hydro Don Wharf, BC Hydro Mike Porter, Site C Project Team Emilie O'Genski, Kirk & Co. Consulting Ltd., Meeting Recorder
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### **KEY THEMES**

### Workforce

• Participants expressed an interest in whether the project would have local workers and those from outside the region, including foreign workers, as well as an interest in the impact that the additional workforce would have on local services and infrastructure.

## **Impact Lines and Land Use**

 Participants expressed an interest in land use within the preliminary impact lines and how landowners impacted by flooding and erosion would be compensated.

## **Community Benefits**

 Participants expressed a desire to know what community benefits BC Hydro has planned to help offset or compensate for the impacts of Site C on communities. Many participants said they would like to understand specifically what benefits their community could expect from the project.

## **Outdoor Recreation**

 Participants asked about access to the reservoir during and post-construction and raised issues of maintenance of boat launches at the Williston and Peace Canyon reservoirs.

The record notes that the meeting was called to order at 9:00 a.m.

## **DISCUSSION**

(Abbreviations will be used and mean – Q: Question, A: Answer, C: Comment)

## 1. Welcome and Introductions – Judy Kirk

Judy Kirk welcomed participants to the multi-stakeholder meeting, explained the format of the meeting and introduced the Discussion Guide and Feedback Form. Judy informed participants that the meeting was being recorded for accuracy. Roundtable introductions followed.

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## 2. Review of Consultation Discussion Guide - All

Dave Conway reviewed the introduction to the Discussion Guide, including ways to participate in the consultation and the schedule of open houses and the list of information items and consultation topics.

Dave Conway reviewed BC Hydro's energy planning, design of Site C and key project benefits.

- Q: Janice Large: I thought I heard that BC Hydro had privatized their power for that residential consumption?
- A: Dave Conway: No, our back office services like human resources, billing, etc. have been privatized. BC Hydro still services three customer loads split by thirds residential, commercial and industrial.

Melissa Holland provided information regarding transmission update.

- Q: *Ken Forest*: In addition to the yellow transmission line, shown on the map on page 7, coming out of Site C, do you have any other transmission lines out of Site C like up to Horne River?
- A: Melissa Holland: Not as part of this project. There are studies for the Dawson Creek Area Transmission and one more for GMS Substation. In terms of Horne River, there is a preliminary study called the Northeast Study where we look at if we had to supply power, what that look would like. It's in the early stages but it is study that we are looking at it.
- Q: Ken Forest: Do you have any plans to send electricity to Alberta?
- A: Melissa Holland: We don't have any plans to upgrade any interconnection ties to Alberta.
- C: Janice Large: Will Site C improve our power? As it is right now we have dirty power. I live four miles out of town and I have to put a battery on my electronics because the power here is unreliable. We buy our power from Alberta at night.
- A: *Melissa Holland*: You are experiencing outages that are on the distribution system level. They are caused by disruption from weather, icing, tree branches falling, etc. That's what the BC Hydro crews are doing repairs on when you see them. The transmission system outages are less frequent and withstand greater forces of nature. In terms of power from Alberta, I'm not familiar with the power flows but Fort St. John and Taylor are fed from BC Hydro bulk transmission system coming from the GMS substation attached to the W.A.C. Bennett Dam.
- C: Andy Ackerman: Dirty power is at happens when you hook up at RV Parks and you always have a battery backup because there are little surges that can destroy your electronics.

Siobhan Jackson provided information on planning underway regarding worker accommodation and mentioned that worker accommodation will be a consultation topic in the fall 2012 consultation.

C: Andy Ackerman: Have you talked to Northern Health and BC Ambulance? BC Ambulance is currently finding it hard to recruit. We are having enough trouble in Fort St. John getting ambulance service and it worries me putting another thousand people here to build Site C. I talked to the Chief of BC Ambulance and he said they wouldn't be expanding but I think they need to be able to look down the road. My understanding is that Northern Health doesn't think there is going to be an impact. Has it been emphasized?

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- A: Siobhan Jackson: I have had an introductory meeting with them and our consulting team has had more discussions. Our project may or may not proceed; it still requires environmental assessment. They don't want to put Site C into their plans as it's not a "go" yet. They've done some forward planning but they aren't sure. I haven't talked to BC Ambulance but I will follow up with my team.
- Q: Lisa Antoniel: I was wondering if since we are increasing the population over 7 years, can we expect to see money put back into the community for things like roads, schools, etc.?
- A: Siobhan Jackson: We are including an assessment on net change in terms of revenue. If any number of the workforce moves to the community, they would pay their taxes just like you and me. With respect to our camp and people not residing within city boundaries and using Fort St. John community facilities, some of those criteria look at participation. For example, if there was an off-peak time when the pool is almost empty, we could make an arrangement where we rent that pool space for our workers to use and we are looking at things like that. BC Hydro pays for grants-in-lieu that pays for facilities within the boundaries. It is on our radar and we are doing an assessment of the net potential change.
- Q: Lisa Antoniel: When the project is gone what will happen with the land used for the camps? Will it be restored or just left there?
- A: Siobhan Jackson: All temporary camp or constructions areas would be restored at the end of the project.
- Q: Ken Forest: You said that a lot of the workforce would come from other areas?
- A: Siobhan Jackson: Your employment rates would suggest that. If you or anyone else moved from your current job, it might create vacancies in your community.
- Q: Ken Forest: I'm hearing that the lower mainland might flow people from down there to up here. Skills are important as well and they are in high demand in the Alberta tar sands. Are you looking at foreign workers?
- A: Siobhan Jackson: BC Hydro will be building the project through contractors and the workforce will be associated with those contractors. The majority will come from contractor staff so it will depend on where they source recruiting locally is the most cost-effective but I can't say where exactly they'll come from.
- Q: Karen Mason Bennett: How will the recruitment affect the local community?
- A: Siobhan Jackson: We are including a labor market assessment and looking at movement in the local economy.
- Q: Karen Mason Bennett: I wonder about the municipal boundaries. What about organizations that are located in Fort St. John but serve a much broader area and receive government funding. Has anything been planned to mitigate?
- A: Siobhan Jackson: These things are based on a population workforce assessment. Community services and social services are part of the environmental assessment. The Environmental Impact Statement Guidelines that the BCEAO and CEA are consulting on right now actually lays out all of these subjects and our approach for assessing them. They are formula based assessments and we are taking a look at it.

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- Q: Andrea Morrison: I'm wondering if you have a sense of what percentage of the workforce would become residents here?
- A: Siobhan Jackson: I don't have a prediction but what we would like to do is put in mechanisms that support those who wish to move to town. We would prefer people come with their family to transition into the community. We can't predict who will stay, but we can speak to the actions about how we can support that.
- Q: Andrea Morrison: But you have the numbers who you can accommodate at camps?
- A: Siobhan Jackson: We can estimate how many workers will be on the project. We will monitor on a year-over-year basis to make sure that we can accommodate them if we need to. We don't want to build the maximum camp if we don't need to but we want to accommodate everyone if need be. If it's more cost effective that contractors can secure other accommodation at a better cost then that's fine, but from a responsible point of view we want to be ready.
- Q: *Unidentified*: Have you approached the school district about the possibility of increase to the population in the schools?
- A: Siobhan Jackson: We have a delicate balance between people who don't want camps and those who want workers to be integrated into the community. We have talked to the school districts about their status so we can plan ahead. We think families moving into the community will be modest.
- Q: Unidentified: Don't you think that building a camp will attract more of a single worker community?
- A: Siobhan Jackson: This is a construction workforce and it's temporary in nature. They will be seasonal jobs. It's a number of short-term construction projects. It's not the same as a long-term operating workforce. There will be some long-term positions and we want to make sure we can accommodate them while recognizing that a lot of the work is seasonal and short-term. We are trying to strike a balance.

Andrew Watson provided an overview of the preliminary impact lines and land use around the proposed reservoir. Mike Porter reviewed the four impact lines and proposed shoreline protection at Hudson's Hope.

- Q: *Moria Green*: Assuming the drawing on page 12 is to scale, the erosion distance is 25 metres. What is the impact of all the sediment on the reservoir?
- A: *Mike Porter:* There are a number of studies happening right now. We are looking at things of turbidity and water quality and also where the sediment will be deposited and those studies are underway.
- Q: Eliza Stanford: On page 12, the erosion impact line and stability impact line looks like a questionable area. The location of the Fort St. John municipal dump and the proximity in that zone worries me. Are you looking at the impacts of the dump sliding in to the dam?
- A: *Mike Porter*: The municipal dump sits outside of the stability impact line. We are looking at the lands beneath it. When I say outside the zone, it's beyond the impact line.
- Q: Andy Ackerman: Will the campground currently at Lynx Creek be underwater?
- A: *Mike Porter*: Yes, it will be.

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- Q: Andrea Morrison: Firstly, I hope you are using different methods forecasting then were used for the Williston Reservoir.
- A: *Mike Porter*: Yes, we have a number of tools available to us now that weren't back then. These erosion predictions are based on range techniques.
- Q: Andrea Morrison: I talked to a landowner and they told me a geotechnical hole was drilled and they'd be seeing results over the next six years. I thought it was strange because the environmental assessment is a three year process. There is so much unknown.
- A: *Mike Porter*: The geotechnical drilling intent is to monitor ground water conditions around the slopes and some of that groundwater monitoring has been going on for many years. Recently, instrumentation was put in last summer and carried through the winter and spring. The idea is to understand the range of levels with different configurations.
- Q: Judy Kirk: Is your question will that information be used in the environmental assessment?
- Q: Andrea Morrison: My understanding that part of the info gathered will be linked to the stability of the slopes?
- A: *Mike Porter*: Yes, it is. We take the ground water levels and it feeds into slope stability analysis. We look at the information we collected and make conservative predictions under natural conditions and with the reservoir.
- Q: Andrea Morrison: My other concern is with slumping that will occur, I have read that normally 50% of sediment will go through a dam, but now that the shape has changed I can see it not going through. Have you considered that?
- A: Andrew Watson: The change in design means that the sediment is moving at a faster velocity. Overall, the longevity will be driven by the long-term tributary. After construction, shoreline studies will be done in the first five years and will decrease over time. The areas where the most significant prediction for erosion is where there is silts and clays. Most of that is upstream from Hudson's Hope and areas near Lynx Creek.
- Q: *Ken Forest*: If someone was injured or hurt on the unstable banks or in the reservoir, is BC Hydro liable in any way? Secondly, for those people who have lived in the valley with their families, when they stand on the banks of the Peace and watch their homes go, will they get a land value cash or something else?
- Q: Andrew Watson: In terms of liability, BC Hydro communicates often and has public safety signage plans. Our organization is exposed to liability in different forms in terms of the care of communicating those risks. It depends on the specific example.
- Q: Ken Forest: Can BC Hydro be sued because of damage?
- A: Andrew Watson: We'd have to get back to you that after talking to our legal department.
- Q: Judith Reynier: BC Hydro will be purchasing in fee simple the land that is flooded as well as a statutory right-of-way for the land between the flooding and the impact zone. A compensation package includes the value of the land and then other elements of change.
- Q: Ken Forest: So the compensation is a cheque.
- A: Judith Reynier: Yes, that's correct.

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- Q: Clara London: On page 13, it says a residential structure can remain in a stability impact line "for a period of time". How many houses are in that zone?
- A: Andrew Watson: Based on what we know today, the Site C project would affect approximately 30 privately-owned residences through flooding, preliminary impact lines, and highway realignment. About 10 of those are located in areas that we consider safe to reside for a period of time. One mechanism is that we'll be watching the slopes and sliding activity that might encroach slowly. What we want to do here is in accordance with best practice. We are providing an option for people to stay for a period of time.
- Q: Randal Hadland: We've had a couple discussions and some BC Hydro people are saying will be built, would be build and may be built. We should remind you that it's a process and saying it's going to be built builds false hope. I know it's not going ahead so it frustrates me.
- Q: Andy Ackerman: Last summer we had major rainfall and I wonder if you have done any monitoring of the soil and impact of erosion. We've had a flood every five to seven years. It seems to be more frequent.
- A: *Mike Porter*: Yes, there was monitoring in place. As well as monitoring of river levels in the Halfway River.
- Q: Jean Leahy: I didn't ever expect I'd be back here again. The rule at that time was no Site C. My other concern is the effects of more water and more fog for people farming here. When the second dam came in, we lost two hours a day. There are those affects and no one talks about it. What about the fog at the airport? Or sometimes you can't see to Hudson's Hope. Like other people, this is not a done deal. Although it looks like it when you buy land and talk about a conveyor belt. I think you should cease and desist until a decision is made.
- A: Siobhan Jackson: The agricultural assessment is underway and it includes detailed field work and updated microclimate studies to understand the potential affects; as well as determining if the climate actually is changing. The work is underway and not forgotten. We are returning in the fall to talk about more about agriculture. We are doing very detailed microclimate studies. We have eight stations and have collected one full year of data in conjunction with our other data from previous years as well as any changes in temperature. The effects of Site C would be much more modest but we are taking that into account. We are addressing it in all scenarios.

Andrew Watson introduced the overview of Highway 29 preferred realignments. Don Wharf reviewed the preferred realignments or corridors in the six segments.

- Q: Andy Ackerman: In 2001 the floods were a 200-year flood. I am looking at the alignment and I'm wondering if you are looking at the impacts of having that kind of event again? The Halfway was hit hard that year.
- A: Don Wharf: At Halfway, the new bridge will be 45 metres above the existing ground level. The causeway itself will be armored by rip rap to provide stability.

MEETING DETAILS	BC Hydro Site C Clean Energy Project
	Project Definition Consultation, Spring 2012
STAKEHOLDER	Fort St. John – Stakeholder Meeting
MEETING	April 17, 2012, 9:00 a.m. – 11:00 a.m.
	Quality Inn Northern Grand – Grand 1
	9830 100 <sup>th</sup> Avenue
	Fort St. John, B.C.

Siobhan Jackson reviewed the proposals for recreation sites and public safety and use of the proposed reservoir during construction and operations.

- Q: Andrea Morrison: When will the reservoir be accessible?
- A: Siobhan Jackson: The boat launches are planned in general locations and the site specific locations would be determined in the first year of operation as we are taking a conservative approach to public safely. Everything would be open approximately after three years. Any boat access will need to be authorized by Transportation Canada. Any barriers would be managed through them. They will be working hard to limit that as much as possible.
- Q: Andy Ackerman: Firstly, right now there is little camping along the river, if you are going to put these launches in, the Dinosaur Lake campground is the most popular. I would encourage you to put camping in association with your campground sites. Secondly, a warning bell went up as there are millions of dollars in river boats in this part of the world. You can't shut the river down for seven years. You have to have a better plan for allowing access to the river above the dam site otherwise they are just going to go. They didn't spend \$100,000 on boats to sit idle. You need to talk to them so that they can enjoy the access of the river.
- A: Siobhan Jackson: I hope you put those comments down. Each site that we select we have looked at adjacent lands for camping and other activities. With respect to the river, we aren't closing the river for 7 years, we need to close the active dam site but just the three kilometer area will be closed.
- Q: Andy Ackerman: The Halfway River is a launch site and you might want to create a special launch site in the interim otherwise you'll have problems.
- Q: Eliza Stanford: My comment is about the track record of BC Hydro's maintenance on Williston and Peace Canyon, both of which are appalling. I've lived here for 12 years and it's just horrible. What will be different, will you raise your game?
- A: Siobhan Jackson: The main thing that I can say is that every commitment through the environmental assessment process is captured and required and will become a legal compliance for us. I know we are working on our water license requirement program and we are looking to step up our work there. We have active work planned at Peace Island Park to make the launch better even though we didn't build it. I know on Williston that they've had challenges with the physical site location in terms of the length of the launch. I understand your concern and we are looking at the program overall.
- C: Dave Conway: We are in the process of relocating the old Dunlevy launch site. We are looking at issues with high water this year. Right now, the reservoir 2,167.2 feet and we expect a full pool by June. We need low water to be able to make changes. There is a plan and we are actively pursuing it and that goes for sites in Mackenzie as well.

Andrew Watson reviewed 85<sup>th</sup> Avenue Industrial Lands and the multi-use of this site for the Site C project.

Q: Unidentified: I don't know if you noticed but it's really dusty right now. How are you going to control dust?

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- A: Duane Anderson: With site preparation we would look at mitigation techniques like wetting the soil. After that, the nature of the till material is that it's clay and quite moist of about 6-8%. For those reasons, the till material isn't expected to be dust generating. There are options for covering the conveyor.
- Q: Unidentified: What about the trucks?
- A: Duane Anderson: With the trucks, the roads could be treated to prevent dust as well as the actual site itself is further away from town.
- Q: Eliza Stanford: Have you ever been downwind at Williston?
- A: Duane Anderson: Yes, I have. It's an apples and oranges comparison.
- Q: Andy Ackerman: This is a 24-hour operation?
- A: Duane Anderson: The hours of operation have not been determined yet. We are looking at this happening in the non-freezing months. We are looking at how many hours a day and how that would impact the schedule. There are some trade-offs with how you move that material.
- A: Andy Ackerman: I'm worried about the digging, crashing, and also have you done any noise testing? The Old Fort folks will be hearing it. I wouldn't want to be living in a noise zone but that will be your first complaint. It's going to be the constant crashing and lights.
- C: Judy Kirk: If there are plans for noise mitigation and when will the community see those plans?
- C: Andy Ackerman: That's right. All of this stuff will impact them.
- C: Duane Anderson: That is in-line with our thinking. That one scenario is that you could run the conveyor and stock pile and maximize the activity. Those are things that we are looking at. We have done noise monitoring in the area. We are looking at things where we characterize the noise generation and make a prediction. Then we introduce different noise mitigation strategies and that takes into account topography, etc.
- Q: Karen Mason Bennett: What is the plan for when the conveyor belt is no longer needed?
- A *Duane Anderson:* Firstly, the corridor for the conveyor belt is not needed long-term and it will be returned to current use. The conveyor itself and could be recycled. Sometimes the actual belt itself could be repurposed for hiking trails. Those kind of things we are incorporating into our planning.
- Q: Randal Hadland: Is there a planning process for starting transmission lines out to Kitimat?
- A: Melissa Holland: You are speaking of lines that would serve the LNG? We are in preliminary study phase for what the options are and we have a couple of potential customers who may need power on the coast.
- C: Andy Ackerman: I just want to say in your general consultation, one of the things we've talked about is additional community services. Are you going to sit down with those organizations and have a session with them about the increase of population and the potential impacts?
- A: Siobhan Jackson: I could follow up with you and see who those organizations will be. We are at the formal level right now but we will be looking into the next level.

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- Q: Dale London: I was wondering about boat launches and realignment. What about fences for the animals? With recreation, we'll have double the traffic on that highway. It will prevent people from getting on the private property as well. You'll have more traffic.
- A: Siobhan Jackson: We have a wildlife team working on the project looking at project components. We have collared animals and we have WARS (Wildlife Accident Reporting System) data from the Ministry of Environment. At this point we don't have plans to fence the whole highway. The wildlife team will be looking at proposed mitigation for reduced mortality rates.
- C: Dale London: The big thing is the wildlife.
- C: Siobhan Jackson: In our discussions with the Ministry of Transportation we've heard that the WARS might not be entirely correct because data ends up in the back of the truck not recorded as a collision. The detailed design planning is taking that into consideration.

Dave Conway wrapped up the meeting and encouraged participants to complete the feedback form and encourage their friends and others to participate.

The record notes that the meeting ended at 11:00 a.m.

MEETING DETAILS	BC Hydro Site C Clean Energy Project
	Project Definition Consultation, Spring 2012
STAKEHOLDER	Taylor – Stakeholder Meeting
MEETING	April 18, 2012, 9:00 a.m. – 11:00 a.m.
	Taylor Community Hall
	9896 Cherry Avenue
	Taylor, B.C.

PURPOSE	Notes from a multi-stakeholder meeting for the BC Hydro Site C Clean Energy Project held with stakeholders and representatives of the Site C Project on April 18, 2012 at the Taylor Community Hall, Taylor, B.C.
FACILITATOR	Judy Kirk, Kirk & Co. Consulting Ltd.
ATTENDEES	Karen Andrews, TransCanada Pipeline Jana Aven, Camco Ventures Terry Cope, Altagas Jill Copes, BC Women's Institute Melany de Weerdt, District of Taylor Matt Edgar Rhynn Eggers, Rogers Trucking Albert Eisler, Canfor-Taylor Pulp Troy Gould, District of Taylor Colleen Hill Gordon Hill Charlotte McLeod, District of Taylor Mark Meiers Randy Merk, Altagas Freda Murphy Sherry Murphy, Taylor Public Library Cyndy Reid, Taylor Motocross Curtis Rogers, Rogers Trucking Sheldon Sears Alan Stebbing, District of Taylor Ethelannn Stewart Brent Taillerfer, District of Taylor Craig Thomson, Canfor-Taylor Pulp Phylis Wiles Harvey Wiles
SITE C PROJECT TEAM ATTENDEES	Dave Conway, BC Hydro Siobhan Jackson, BC Hydro Andrew Watson, BC Hydro Don Wharf, BC Hydro Mike Porter, Site C Project Team Karen Schroder, Kirk & Co. Consulting Ltd, Meeting Recorder

MEETING DETAILS	BC Hydro Site C Clean Energy Project
	Project Definition Consultation, Spring 2012
STAKEHOLDER	Taylor – Stakeholder Meeting
MEETING	April 18, 2012, 9:00 a.m. – 11:00 a.m.
	Taylor Community Hall
	9896 Cherry Avenue
	Taylor, B.C.

### **KEY THEMES**

### **Reservoir and Water Flows**

- Participants expressed an interest in more information about water flows and water quality, including levels of turbidity.
- Participants expressed concern regarding the potential amount of siltation from long-term sloughing and shoreline erosion.
- Participants expressed concern that BC Hydro's slope stability predictions for the Williston Reservoir were not accurate and therefore expressed a lack of confidence in slope stability predictions for the Site C reservoir.

## Clearing

• Participants asked about clearing plans and expressed concerns about debris management, given the amount of debris in Williston Reservoir.

### Fish and Wildlife

 Participants asked questions about fish and wildlife and wanted to know how BC Hydro plans to avoid or minimize impacts.

The record notes that the meeting was called to order at 9:00 a.m.

### **DISCUSSION**

(Abbreviations will be used and mean – Q: Question, A: Answer, C: Comment)

## 1. Welcome and Introductions – Judy Kirk

Judy Kirk welcomed participants to the multi-stakeholder meeting, explained the format of the meeting and introduced the Discussion Guide and Feedback Form. Judy informed participants that the meeting was being recorded for accuracy. Roundtable introductions followed.

## 2. Review of Discussion Guide and Questions and Answers - All

Dave Conway reviewed the introduction to the Discussion Guide, including ways to participate in the consultation and the schedule of open houses and the list of information items and consultation topics.

Dave Conway reviewed BC Hydro's energy planning, design of Site C and key project benefits.

Andrew Watson provided information regarding transmission update.

Siobhan Jackson provided information on planning underway regarding worker accommodation and mentioned that worker accommodation will be a consultation topic in the fall 2012 consultation.

Andrew Watson provided an overview of the preliminary impact lines and land use around the proposed reservoir. Mike Porter reviewed the four impact lines and proposed shoreline protection at Hudson's Hope.

- C: *Mark Meiers*: Erosion has far exceeded the safety line at Williston and won't stop until it reaches Butler Ridge.
- A: *Mike Porter*: There are areas of Williston Reservoir, particularly Dunlevy, with a fairly large component of shoreline erosion. That's something we have looked at closely when establishing these impact lines and taken the learning from what's happened there.
- Q: Mark Meiers: So with the billions and billions of tonnes of silt that come out of the Halfway River and Farrell Creek and off the river banks....how deep will the reservoir be in 10 years?
- A: Andrew Watson: We are doing reservoir and sediment modeling which will part of the environmental assessment to be submitted to the regulators. Right now what studies will be done and the methodology of those studies are available on the regulator's website and are open for public comment so there will be agreement on the studies. Once complete, the studies will be submitted as part of the Environment Impact Statement. The studies are ongoing but in terms of order of magnitude, the most active period will be the first five years where the sediment will be moving. The silts and clays, which are finer, will be suspended in water and will work itself around the reservoir. The course materials will be deposited on the end of the creation of that beach. That's the process and our predictions of the final depth will be available once the studies are complete.
- C: *Mark Meiers*: Your predictions were way out for Williston Lake and personally I feel that this dam will be the worst environmental disaster that any of us will see in our lifetime.
- A: Andrew Watson: We are certainly taking the lessons from Williston into consideration when developing these impact lines. On the impact line maps you'll see the areas of greatest erosion predictions are in areas of silts and clays; that has taken into account conservative assumptions, including the type of response that happened at Dunlevy. Those areas were flagged as an area of high erosion potential but it has gone on a long time, I will agree with that.
- Q: *Mark Meiers*: Were you at Williston this summer this summer after the heavy rains? Did any of you see that massive log jam that went from the penstocks all the way over the Dunlevy?
- A: Dave Conway: Yes, I was up there.
- C: *Mark Meiers*: You could have walked across the lake on the log booms. The same thing is going to happen here. The amount of wood that comes out of the Halfway River is phenomenal.
- A: Andrew Watson: We are looking at the debris containment strategies and boom designs. We may be looking at an additional boom at Wilder Creek. But we are certainly aware of the debris potential at our reservoirs.
- Q: Randy Merk: Is the flow going to change downstream of the dam?
- A: Andrew Watson: During filling of the reservoir, flows will be reduced to what is the lowest allowable flow right now.

- C: Dave Conway: Low flow out of Peace Canyon Dam right now is 10,000 cubic feet per second. That's the least amount that BC Hydro can put into the river.
- A: Andrew Watson: So we wouldn't be changing the current operating regime on the river the levels in which we currently operated within.
- Q: Craig Thomson: What will happen to the flows in the tributaries near the dam?
- A: Siobhan Jackson: We will be including with the environmental assessment, a detailed water management plan, which would provide our proposal of what our water license would include in the tributaries as well as the river.
- Q: Randy Merk: Will there be restrictions on river boating during construction?
- A: Siobhan Jackson: Yes, on page 25 there is an outline of proposed public safety measures. There would be a closure of the river at the dam site that would be permanent. These are our proposals but we can't do any closures without authorization from Transport Canada. Transport Canada will have to review our application and reasons for closures and give authorization.
- Q: Albert Eisler: On clarity of water, will there be increase in turbidity?
- A: Siobhan Jackson: We are doing water quality studies. One of the things we are looking at is the clearing plan and ways to do the clearing while minimizing run-off, for example by keeping some vegetation. But in general, we would have an environment management plan that would take into account water quality parameters.
- Q: Albert Eisler: So we don't know if there is a change? Do we know if water will be more or less dirty?
- A: Siobhan Jackson: BC Hydro will be working to maintain the current water quality level. We have many years of baseline water quality monitoring so we can get an understanding of the current water quality and sediment levels now. BC Hydro needs to assess water quality with respect to fish and to human health, so there are a number of areas we have to look at.
- Q: Albert Eisler: Those numbers will be available as part of environmental assessment?
- A: Siobhan Jackson: Yes, that's right. We anticipate submitting that for review in early 2013.
- Q: Karen Andrews: So you can't boat up the river, but what about the fish.
- A: Siobhan Jackson: Fish passage past the dam is a focus of many of our fish studies. Understanding the current fish populations and where their main areas are. Also whether the populations are connected for example, bull trout in the Pine and the Halfway Rivers is that one population or genetically two populations. And understanding their needs to move past the dam site, once these things are understood then they can do their assessment of impacts of passage past the dam not being available.
  - Our base proposal has been a "trap and truck" method for Bull Trout. Fish ladders are commonly used for other types of fish that are determined to move upstream. But Bull Trout do not typically use fish ladders, so we are looking alternatives but the main thing we are looking at is, is it needed to maintain a healthy population upstream and downstream.
- Q: Mark Meiers: So you don't know whether Bull Trout use fish ladder?

- A: Siobhan Jackson: There are very few instances of them being well used, trap and truck is a more common approach. The behavioural imperative of the fish doesn't lend itself to be as likely to use a fish ladder as salmon for example.
- Q: Alan Stebbing: On preliminary impact lines, why is the data from the study not being released to property ownersfor their peer review? And to ensure all the review has been done and that property owners have an opportunity to look at it independently of BC Hydro?
- A: Andrew Watson: Over the last four to five weeks, we have been meeting with property owners one-on-one to walk through the results of the impact line studies. In terms of documentation, the report is being assembled now and will be included in the Environmental Impact Statement.
- Q: Alan Stebbing: But my question is why is it not available now since BC Hydro has the results and is sharing them with property owners, the results are out there now, they are impacting property values. You are meeting with property owners but you're doing so without allowing the property owners to peer review the process?
- A: Andrew Watson: Property owners have been asking for this information so we wanted to share it with people early. Right now, our approach and the methodology for how BC Hydro developed these lines is with the regulator for review and is open for public comment. Comments received will shape what we submit to the regulator for ultimate review in the Environment Impact Statement. We made the decision to bring this information out now because communities and property owners have been asking for it and also we wanted to share information on Highway 29 realignment and it is difficult to do that without talking about the impact lines and proposed land use.
- C: Alan Stebbing: When property owners asked for the results of soil samples, we have been told no.
- A: Andrew Watson: When we've drilled on private property and the property owner has asked for drill hole results, we have provided it to that owner.
- C: Alan Stebbing: Yet you won't provide it to anyone else who is affected.
- A: Andrew Watson: No, anyone who is affected, where we have done a drill hole on their property, we will provide them with the information. As part of the Environmental Impact Statement, there will be a comprehensive summary of historical studies, all of our investigations, the methodology, the peer review behind in it. The way that we do our studies needs to be outlined by the regulator and that process is still ongoing.
- C: Judy Kirk: But sir, I hear you loud and clear. We have this in the notes let me paraphrase and you can tell me if I have it right. You would like the information regarding preliminary impact lines sooner.
- C: Alan Stebbing: Yes, and it is the data we are looking for. We understand the final review will be available but we don't agree with not providing data, except to private land owners. We are asking for data to be available for review for everyone, not just for the impacted property owners.
- C: Judy Kirk: I understand, thanks for your comment. Any other questions about impact lines?
- Q: Mark Meiers: What's your prediction for when the Site C reservoir will be 50% full of silt?
- A: Andrew Watson: I don't have the exact numbers until our studies are complete, but early indications anticipate it will be hundreds of years. Even the historical estimates, which were very

conservative, showed it would be about 300 years before it would pinch in at the Peace and substantial infilling of the reservoir, even with their calculations, which were conservative, it would upwards of 700 years. I imagine when we update our calculations it will be even longer than that.

- C: *Mark Meiers*: Red River in Oregon was dammed and was silted in within 50 years. There is a documentary on it, you should watch it. They had to remove the dam and wait for a heavy rain to just wash the silt down the river.
- C: Andrew Watson: Yes, there are many dams built in high sediment inflow areas.
- C: Mark Meiers: We all know this country washes like a 'son of a gun' when it gets wet. Every island on the Peace River is due to a slide. I think you could knock your 100s of years down to 15 or 20 years. As your silt builds up higher and higher when you have 50% silt, you have 50% less water.
- C: Dave Conway: One thing to remember, that I mentioned at the beginning, is that the proposed Site C reservoir would not be used for storage water will be stored at Williston Reservoir. The proposed Site C reservoir would be there for head, for generation. So as long as there is water through to the turbines, the facility will be operable.
- C: *Mark Meiers*: You have no way to remove the silt. How much silt is in Williston Lake? That's been washing in there for how many years now?
- A: Andrew Watson: The infilling of Williston Lake would be driven by the tributaries, like Parsnip, and it would be thousands of years before that got to the main area of Williston.
- C: Mark Meiers: It's beaching in at the penstocks right now.
- A: Andrew Watson: There is beaching and erosion there and transport of sediment but it's very deep reservoir there and that will eventually slow down and stop. The mechanism to slow it down is the longer and longer beach and the underlying material. What makes that area susceptible to erosion is the type of material, it is quite a loose material and collapses easily when wet and there is almost no gravel in it. What you find in the silt and clay that are in the Site C area is that they are overridden by the strong caps of gravel. Gravel ends up on the beach and it provides an amouring effect. The silt and clay can easily move but the larger gravel cannot so that does cease erosion. But you are right, in Williston in the area opposite the dam, there is almost no gravel so that doesn't slow it down and then you look at the length of beach, which will act to slow it down, and then you look at the underlying material.
- C: *Mark Meiers*: Have you been up to Williston and look at the shore all the way around the reservoir?
- A: Andrew Watson: Yes, I have.
- C: Mark Meiers: There is a fantastic amount of erosion around Williston that can't be stopped. BC
  Hydro has hired people over the years to go up there and seeded some of this gravel to stop
  erosion and dust storms that are created from that, and they have been unsuccessful in doing that.

Mike Porter reviewed the information regarding Hudson's Hope berm in the Discussion Guide.

Q: *Judy Kirk*: Any questions on Hudson's Hope berm or impact lines before we move on to Highway 29? We can come back at the end if there are questions then.

Andrew Watson introduced the overview of Highway 29 preferred realignments. Don Wharf reviewed the preferred realignments or corridors in the six segments.

- Q: Randy Merk: That road has seen a huge increase in traffic over last five to six years, will there be upgrades to the entire road not just these segments?
- A: Don Wharf: Yes, MoTI is aware of that and they are monitoring it. We are working closely with MoTI. The scope of work, which we are presenting today reflects the impacts of proposed Site C reservoir on the highway. With respect to the areas around Cache Creek Hill, which is an area of concern for residents, the Ministry is looking at that and doing planning studies but I am not sure how advanced those area but I know they are monitoring that area and taking upgrades into consideration.
- C: Judy Kirk: After the meeting, Don has the name of some MoTI staff that we could pass along and you could follow up with them as well.
- Q: Karen Andrews: Who would pay for these realignments? BC Hydro? Or MoTI?
- A: Don Wharf: BC Hydro would pay for these realignments that we're discussing today.
- Q: Mark Meiers: Is that included in the 7.9 billion project cost?
- A: Don Wharf: Yes it is.
- C: Judy Kirk: Siobhan, I am going to ask you to go through the recreation section now in the interest of time and we can have time for questions at the end.

Siobhan Jackson reviewed the proposals for recreation sites and public safety and use of the proposed reservoir during construction and operations.

- Q: Sheldon Sears: For the larger boat launch, would there be a BC Hydro owned campsite there?
- A: Siobhan Jackson: We haven't proposing to build a camp site, but we have selected sites that have flexibility in land use around them (BC Hydro or Crown owned land) so there is the potential for a campsite run privately or by local governments adjacent to the boat launch sites.
- Q: Karen Andrews: When you discussed clearing the land, I assume you are talking about cutting the trees?
- A: Siobhan Jackson: Yes, the merchantable timber will be made available to local mills and there will be a waste management plan developed for the remaining materials. We will look for opportunities to use it and also develop a plan for burning where required. One of the considerations of the plan is to take out only what is a net benefit to take out. In the riparian zones, some of the low vegetation may be better to leave behind. It will help with the water quality, run-off and erosion during construction as well.
- C: Sheldon Sears: Nothing is done on Williston, for years I haven't seen any one out here working. It's getting worse and worse. There is so much wood there and BC Hydro is doing nothing about it.

  Something should be done about it you could incinerate it for energy. It's a huge problem for

recreation. You can't even use the lake at certain time of the year. Is the Site C reservoir turns out to be the same sort of scenario; it isn't going to be useful for recreation.

- A: Siobhan Jackson: The proposed Site C reservoir would be about 93 square kilometres whereas Williston is about 1,700 square kilometres so the clearing of the reservoir is very doable given the size. We will also be doing pre-clearing for areas where there is erosion predicted and we will maintain debris booms at the intakes and we will likely have other debris collection areas once we observe where debris collects to. We plan to have some offloading areas as well. It's a much more manageable size reservoir and there will be a number of strategies put in place to clear it appropriately.
- Q: Sheldon Sears: What about Williston as it stands? Are there any strategies for that?
- A: Siobhan Jackson: I can talk to you further about Williston after the meeting as well but as you know Williston has hit full pool a couple of times recently. I think that what's happened over the past half a dozen years is that a lot of the stranded wood and debris has re-floated.
- C: Dave Conway: The other thing I would add is that the rain event last June brought a lot of materials down from the tributaries. BC Hydro does do ongoing debris management at a number of sites, including Hydro Creek as well as down by the dam site. Right now, the strategy is to pile it and burning when we can get a permit to do so.
- Q: *Mark Meiers*: So you're going to cut all the trees and then when it's all flooded the stumps will be shooting up out of the water?
- A: Siobhan Jackson: We don't anticipate that.
- C: Mark Meiers: It's happening right now at Williston and Dinosaur.
- A: Siobhan Jackson: We will be cutting the stumps to ground and we will be fully removing the stumps in areas around boat launches but research has shown that stumps coming up is not very common.
- C: Judy Kirk: I'm going to ask Andrew to move on to 85<sup>th</sup> Avenue section and we should have time at the end of the meeting for any further questions or comments you may have.

Andrew Watson reviewed 85<sup>th</sup> Avenue Industrial Lands and the multi-use of this site for the Site C project.

- Q: Randy Merk: What will conveyor do when it gets to the roads?
- A: Andrew Watson: One of the advantages of conveyor is that it minimizes traffic impacts. It will go under Old Fort Road and under 240<sup>th</sup> Road in a box culvert.
- Q: *Craig Thompson*: How long is the conveyor belt?
- A: Andrew Watson: About 3 kilometers; we haven't finalized the exact location of where materials would be transferred from conveyor to trucks but it's about halfway to the dam site. It's about 6 kilometres from 85<sup>th</sup> Avenue site to the dam site.
- C: Mark Meiers: The way you are talking about the project, it sounds like a done deal.
- A: Andrew Watson: With project components like this, there are a lot of iterations needed so we need to bring out the early information we have. We need it for the environmental assessment. We want to get comments from the public on areas of concern to feed into mitigation plans that will be part of the environmental assessment. We need to have enough of a level of definition on the project so

that an assessment of the impacts can be done and so that the regulators can make a recommendation.

- C: Judy Kirk: Just to be clear, the project is subject to environmental review and certification and will not go ahead unless it receives environmental certification.
- Q: Jill Copes: It looks like there is a gravel road beside the conveyor belt?
- A: Andrew Watson: Yes, it is.
- Q: *Jill Copes*: The map shows its running through agricultural land. Once you put gravel down, you can't reclaim that agricultural land.
- A: Andrew Watson: Okay, we will take that back. I know the plan is to reclaim it to full agricultural use.
- C: Judy Kirk: Good comment. Would you mind to put that in your feedback form as well?
- A: *Karen Andrews*: Don, you talked briefly about the road and the budget for the entire project. Could you please elaborate on how much budget is planned for reconstruction of the road and how much that works out to per kilometre.
- A: Don Wharf: Because of the bridge structures that are going in the cost per kilometre is skewed for those areas that don't have a bridge structure. But we are working towards a budget of \$200 million.
- Q: Karen Andrews: For how many kilometres?
- A: Don Wharf: That's for the 30 kilometres of Highway 29 but as I said taking the \$200 million and dividing it over the 30 kilometres doesn't really give you a representative cost due to the higher cost of the bridge structures in some of the segments.
- Q: Matt Edgar: A lot of the area where water will be is within the Agricultural Land Reserve (ALR), is that correct?
- A: Siobhan Jackson: Yes, some of the areas on the north bank and where the conveyor belt is.
- Q: *Matt Edgar*: So is that area being permanently removed from ALR?
- A: Siobhan Jackson: The Agricultural Land Commission would have to speak to the appropriate type of action for those areas.
- Q: Matt Edgar: Have you discussed your plans with the Agricultural Land Commission?
- A: Siobhan Jackson: For the reservoir area, it's primarily lands on the north side of the river that are in the ALR; land on the south bank and on the islands are not, so by area it comes out less than you would think looking at the flooded area as a whole.
- C: Matt Edgar: But it is Class 2 soils.
- A: Siobhan Jackson: I can speak to our agricultural study in general as I think you have a broader interest. We are conducting an agricultural assessment. We have completed a lot of field work last year to, at a ground truth level, go and look at the class of the soils. The class grades of the area right now are based on the Canada Land Inventory, which was done at a map scale, not a ground scale, in the 1960s. We have gone to the land and done soil testing throughout the area to update

and refine the classification. We are currently working on bringing in the climate records because the class of the land is defined by the soil as well as the climate.

- C: Matt Edgar: So you are changing the agricultural classification?
- A: Siobhan Jackson: We are doing field work to verify and update what it is. We have met with the Agricultural Land Commission and the Ministry of Agriculture to go through our methodology and approach. So they are aware of the work and are reviewing the work. The land classification will be updated based on field-truthing and the results will be part of the environmental assessment. In terms of the permitting aspect, I can't speak for the ALC in terms of their approach.
- C: Matt Edgar: Are all of the areas you are using, including the area for the conveyor belt, being looked at?
- A: Siobhan Jackson: We started field work in the valley and now moving to other areas and doing appropriate testing for those areas. In terms up updating the land capability, it is very common, when a project is proposed, to go out and do site specific work, which is different than what the Canada Land Inventory did. They looked at all of Canada using maps, not shovels; so it's common to update that information with testing. They did a phenomenal job no but we have to remember the scale it was done at.
- C: Judy Kirk: You might be interested in looking on the websites for the Canadian Environmental Assessment Agency and the BC Environmental Assessment Office, the information is at the front of the Discussion Guide, to find out more about the EIS Guidelines that set parameters from the studies, like the Agricultural Study. The open houses for the EIS Guidelines are the first week of May.
- Q: Mark Meiers: Wildlife issues...as well all know this the Yukon to Yellowstone (Y2Y) wildlife corridor, we are going to interrupt a massive amount of wildlife. There are geese and ducks nested on the Peace River they've been doing it for thousands of years. It's grounds for elk, moose, bears...any type of wildlife we have in this country. I don't see any mention of this at all. What are you going to do about wildlife? When you flooded Williston, the amount of animals that drowned...Dave has a copy of the article by the River Rats, the carcasses were floating in the reservoir for years. What is the plan for wildlife?
- A: Siobhan Jackson: We are completing a baseline study and then looking at project effects. We are doing an assessment for each species separately, including all of the species you mentioned. One of the main mechanisms we look at, is what is the habitat within the project area and what's the availability of habitat nearby? Is this the only area it is critical for the species? Each species is different; bears have a different ability to cross the reservoir then some smaller animals. We are looking at each to see what the effect will be.
- Q: *Mark Meiers*: Let's say this project proceeds, God help us all if it does, as the water level rises and there are animals swimming around, what happens?
- A: Siobhan Jackson: Our reservoir filling plan will take into account the wildlife and look at the time of year and the rate of filling among other factors. We don't have this plan yet but it will be included the environmental assessment and that does get assessed for the effects on wildlife.
- Q: *Mark Meiers*: So this will be an ongoing concern for a set amount of time, pick a hypothetical time of 10 years...but animals have been crossing the Peace River for thousands of years and they are

going to keep trying to cross the river because they always have done so in the past. So you're going to try to stop animals from drowning for 10 years? 20 years? How long will it take?

- A: Siobhan Jackson: The assessment of wildlife is generally done at a population level and ability for adaption for each species is taken into account. Some species are more adaptive in behaviour so assessment is done at the population level, not the individual morality level. But overall morality is taken into considering at overall project effects.
- C: *Mark Meiers*: For years BC Hydro had promised a fish ladder at Dinosaur Lake and it never happened. So we've isolated the fish population in Williston and Dinosaur lakes. Now the fish population can go up tributaries to spawn and you're going to cut that off too.
- A: Siobhan Jackson: The proposed Site C reservoir will be 83 km long and the cut off will be at the dam site and there will be access along the tributaries. We are looking at what are the fish species there and they will form the basis for fish population for the reservoir. Based on what we understand about each species, there are a couple of species that will be isolated but others, like Bull Trout and Rainbow Trout, that won't. This is not a small reservoir from a lake perspective similar to Revelstoke reservoir, so we are looking there and bench-marking populations to see what species do well. So we will have the local observations upstream and then observations from Revelstoke, which has been operating for about 30 years. This will all be taken into account when doing the assessment and what the predicted outcome for fish and aquatics will be.
- Q: Sheldon Sears: What about the costs of hydro? We have to pay for this somehow...what are the impacts to BC Hydro rates?
- A: Dave Conway: The ratepayer doesn't start to pay for project in rates until generation actually starts. The BCUC will do rate hearings at that time to assess what rates will be just before the project comes online.
- C: Siobhan Jackson: BC Hydro looks at the costs compared to other resources as part of its Integrated Resource Planning. The cost per megawatt hour of \$87 to \$95 for Site C, is cost effective when you compare to other resources.
- C: Dave Conway: The project cost of \$7.9 billion, large hydro projects are cost intensive at the front end and have low operating costs at the back end. To equalize the variation in the type of generation, like in comparison to bio-mass or wind, the cost is a range per megawatt hour. That range for Site C is estimated to be \$87-\$95; our last call for power for wind and micro-hydro, the average was \$125 per megawatt. So Site C is cost effective from that perspective.
- C: *Mark Meiers*: You can't put cost effective on the destruction of 83 kilometres of pristine river valley.
- C: Randy Merk: I think BC Hydro has done a great job of keeping our rates down. Our plants in Alberta and the costs are astronomical. It keeps businesses coming into the province and has to be done.

Dave Conway wrapped up the meeting and encouraged participants to complete the feedback form and encourage their friends and others to participate.

The record notes that the meeting ended at 11:00 a.m.

MEETING DETAILS	BC Hydro Site C Clean Energy Project
	Project Definition Consultation, Spring 2012
LOCAL GOVERNMENT	Taylor – Local Government Meeting
MEETING	April 18, 2012, 1:00 p.m. – 3:00 p.m.
	Taylor Community Hall
	9896 Cherry Avenue
	Taylor, B.C.

PURPOSE	Notes from a local government meeting for the BC Hydro Site C Clean Energy Project held with local government representatives and representatives of the Site C Project on April 18, 2012 at the Taylor Community Hall, Taylor, B.C.
FACILITATOR	Judy Kirk, Kirk & Co. Consulting Ltd.
ATTENDEES	George Barber, Councillor, District of Taylor Bryant Bird, Municipal Emergency Program Coordinator, District of Taylor Gordon Davies, Public Works Superintendent, District of Taylor Melany de Weerdt, Director of Finance, District of Taylor Troy Gould, Parks and Facilities Director, District of Taylor Charlotte McLeod, Administrator, District of Taylor Betty Ponto, Councillor, District of Taylor Alan Stebbing, Fire Chief/Building Inspector, District of Taylor Brent Taillefer, Councillor, District of Taylor
SITE C PROJECT TEAM ATTENDEES	Dave Conway, BC Hydro Siobhan Jackson, BC Hydro Andrew Watson, BC Hydro Don Wharf, BC Hydro Mike Porter, Site C Project Team Karen Schroder, Kirk & Co. Consulting Ltd, Meeting Recorder

## **KEY THEMES**

## **Alternatives**

- Local government participants were interested in how BC Hydro compares alternatives to Site C.
- Participants expressed an interest in additional information about BC Hydro's energy planning process.

## **Reservoir and Water Flows**

- Local government participants are interested in more information about water flows and water management from BC Hydro.
- Participants agreed to meet with BC Hydro to review the preliminary downstream effects study recently completed for BC Hydro.

## **Access Roads and Emergency Planning**

- Local government participants asked about access roads for construction and worker camps.
- Local government staff participants asked about emergency response planning and the possibility of BC Hydro assistance in capacity building.

## **Community Benefits**

 Participants were interested in social impacts and increased pressure on community services, and how these will be mitigated or compensated for within the community.

The record notes that the meeting was called to order at 1:00 p.m.

### **DISCUSSION**

(Abbreviations will be used and mean – Q: Question, A: Answer, C: Comment)

## 1. Welcome and Introductions – Judy Kirk

Judy Kirk welcomed participants to the multi-stakeholder meeting, explained the format of the meeting and introduced the Discussion Guide and Feedback Form. Judy informed participants that the meeting was being recorded for accuracy. Roundtable introductions followed.

## 2. Review of Discussion Guide and Questions and Answers – All

Dave Conway reviewed the introduction to the Discussion Guide, including ways to participate in the consultation and the schedule of open houses and the list of information items and consultation topics.

Dave Conway reviewed BC Hydro's energy planning, design of Site C and key project benefits.

- Q: Alan Stebbing: Does the supply shown in the demand/supply graphic take into account Site C?
- A: Dave Conway: No, this shows the current supply.
- Q: Brent Taillefer: Is there another open house in Fort St. John?
- A: Judy Kirk: There is another stakeholder meeting on Friday morning, which we added as the two sessions held this week had about 50 people RSVP'd and there was still demand.
- Q: Brent Taillefer: What about the cost from an environmental impact aspect?
- A: Andrew Watson: Part of our Integrated Resource Planning (IRP) process looks at trade-off between energy options. All energy options have different impacts, costs and quality of energy, whether it is dependable or needs to be backed up by a dependable source.
- Q: Siobhan Jackson: The information here is helping BC Hydro define the project and some of the mitigation options; whereas the consultation that the regulators are doing and the draft Environmental Impact Guidelines that are online now, those cover all of the topics and the effects assessments for the project. This consultation covers our project definition and the environmental assessment will over all of our environmental work heritage, agricultural, community impacts.
- Q: Brent Taillefer: You're saying it's cheaper, but I don't know how much it costs to build a wind farm. Is the price of power going to be more when the dam comes online?

- A: Dave Conway: You get more of that type of comparison in the IRP process. They compare the options for cost and potential impacts.
- C: Brent Taillefer: People ask me these type of questions, so I want to know from you guys how to answer those and where to direct people.
- C: Judy Kirk: It's a very good question; in June the IRP team will be up here to discuss these things with you. They look at cost, environment, economic development and the quality of the energy. Wind needs to be backed up as it's only there when the wind blows, so it needs to be back up by a hydro or other type of project. So when you're looking at bringing power onto the grid, it's almost a portfolio of projects. A unique aspect of Site C is that it can support renewables. We have Williston Reservoir so Site C can have both firm energy and has dependable capacity.
- Q: Betty Ponto: So is there no comparison here?
- A: Dave Conway: The IRP is the mechanism by which that is done. It's very difficult to monetize the environmental and social components but the public consultation seeks to get input on those.
- Q: Judy Kirk: Betty, was your question is there anything in this Guide about that?
- A: Betty Ponto: Just period: anything on the process so far showing comparisons. If you can't point to something that shows the rationale and comparison, it's really hard to bring people onboard or effectively discuss it.
- C: Judy Kirk: I think we should put in the notes as a follow-up to send a link regarding IRP work last year, which looks at many of the things you are talking about here. In June, there will be a consultation on the draft plan but would be good if you had the background information. This should be sent to Charlotte and she will circulate.
- C: Andrew Watson: One thing to note, that IRP work will fit into our work on Site C and it will be part of the environmental assessment process. We will have to demonstrate the need for the project and the consideration of alternatives as part of the application for certification.
- C: Betty Ponto: You can see where people's irritation comes from; they see the process as incomplete.

Andrew Watson provided information regarding transmission update.

- Q: Alan Stebbing: What about the possibility of running a fiber-optic line to Hudson's Hope along the 138 kV transmission line? Has it been discussed what would happen to the fiber-optic line if the 138kV lines are removed?
- A: Andrew Watson: I'll have to check with our Transmission lead on that and get back to you.
- C: Alan Stebbing: Travis Quilbel is who is working on that.

Siobhan Jackson provided information on planning underway regarding worker accommodation and mentioned that worker accommodation will be a consultation topic in the fall 2012 consultation.

- Q: Melany de Weerdt: Is that 7,000 just the direct employees on the project?
- A: Siobhan Jackson: Yes, that is just the direct employees of BC Hydro and its contractors. We are working with the province, using a StatCan model, on estimating the indirected and induced workforce right now.

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- Q: *Melany de Weerdt:* Will that information be available for fall consultation period when you talk about worker accommodation?
- A: Siobhan Jackson: Yes, it will.
- Q: Melany de Weerdt: And you're thinking this would start construction in 2021?
- A: Siobhan Jackson: Subject to certification, construction would start in late 2014 and transition from construction to operation in 2021. The permanent workforce would be quite small.
- Q: Brent Taillefer: If you build a camp on the south side of the river, is there any possibility of building a road along the Big Bend road?
- A: Andrew Watson: We are looking at bringing rip-rap from the Rockies, either by road or rail. More information on the access roads that will be needed will be part of our fall consultation. But options we are looking at include upgrades off of the Jackfish Lake Road and looking at the existing network of industrial roads on the south side. Right now you can get to Septimus Siding and then it's a pick-up trail down to the potential dam site. We will need a good road to Septimus Siding and then along the transmission lines, then we are looking at options off of Jackfish Lake Road to upgrade industrial roads or build a new road close to transmission lines and then down to dam site. Our work on this and our proposed options will be coming out in the fall. But no, we are not looking coming up the Big Bend.
- C: Brent Taillefer: We're so close to the Jackfish Lake Road and the Septimus but you have to go a long ways to get there. If we could bridge the Pine, we would be right there.
- A: Andrew Watson: There is no bridge being proposed on the Pine River.
- C: Siobhan Jackson: We are looking at direct access across the Peace River at the dam site. There would be a temporary construction bridge at the dam site, so construction access from Fort St. John would use that to access the south side, and the south side camp. And once the dam was across the river, there would be construction access across the dam. We are looking at having both a north and south bank camp.
- Q: *Melany de Weerdt:* Did you have a map up on your website showing the temporary and permanent camp sites?
- A: Siobhan Jackson: All the camp sites would be temporary, no permanent sites. We are looking at temporary camps on both the north and south side for the major facilities and we may also be looking at a couple of sites for smaller regional camps to maintain flexibility.
- Q: Melany de Weerdt: And the road across the dam when would that be built?
- A: Andrew Watson: We will start by building cofferdams in the river bed to expose the work areas and when we get out far enough we will build a temporary bridge on piles. Then we will convert that to a downstream cofferdam that will become part of the permanent dam. That will happen about the end of the year one. There will be permanent road across the top of the dam will be for BC Hydro access only for maintenance and operation.
- C: Dave Conway: You can actually see that road across the top of the dam to the powerhouse in the image on the front cover of the Guide.

- Q: Charlotte McLeod: If there was access along the Big Bend road, it would be closer for suppliers coming from Alberta?
- A: Siobhan Jackson: We can't say for certain where our workers or suppliers will come from until procurement is completed. We expect that they will come from both the Alberta and the B.C. sides of the border.
- Q: Bryant Bird: Our OCP process is coming up, so wondering who would be the primary contact to discuss that with?
- A: Siobhan Jackson: That would be me.
- Q: Alan Stebbing: A couple of questions around emergency services, would you be using Fort St. John fire services for the camps?
- A: Siobhan Jackson: We have always planned to have our own fire services on-site. We have a fire Marshall at BC Hydro so we work with him on what is needed for construction site and ensure we are self-sufficient.
- Q: Alan Stebbing: We have seen a great increase in traffic that flows through Taylor in the past few years and is our responsibility in terms of road rescue, that includes the whole industrial access and Septimus Siding on this side of the Pine River so we'll want to work with someone from BC Hydro on planning for an increase in traffic. There is a difference between us and Fort St. John as they have career fire fighters and we are using volunteers.
- Q: Dave Conway: Does Chetwynd cover rescues on the south side of the Pine River?
- A: Alan Stebbing: Yes, they cover the Jackfish Lake Road area.
- C: Andrew Watson: That's the side we're on.
- C: Siobhan Jackson: One of the things we are looking at in our planning of people travelling on the south side to camps, we are looking at commuter bus options and a park and ride at Chetwynd to remove private vehicle traffic from the industrial roads.

Andrew Watson provided an overview of the preliminary impact lines and land use around the proposed reservoir. Mike Porter reviewed the four impact lines and proposed shoreline protection at Hudson's Hope.

- Q: *Melany de Weerdt:* How much land have you had to negotiate with landowners to buy and have you had to expropriate any land?
- A: Andrew Watson: Right now we have identified these lands and we have an approach to purchase the land we need. We are just in early discussions with land owners at the moment. Last year we did an extensive field operation, including drilling, to get these lines developed, and our approach was to discuss these with land owners before we made information public, so we've been doing that for the past 6 weeks or so. The maps are now on our website; there are 17 of them and they are quite detailed and show all the preliminary impact lines. Mike and his team have been leading that work, they have a lot of experience in this work and they actually helped draft the guidelines that are in place in B.C.

- C: Brent Taillefer: When you compare what you found today to the safeline studies in the 1980s, is there erosion that you wouldn't have expected to be here?
- A: *Mike Porter:* When you looked at how the studies were carried to establish the safeline and these impact lines, there are similarities. The biggest difference is that they put all these processes together and we have separated them to make it more transparent. When these studies were done, it hadn't been that long since the Peace River had been regulated so in the past there had been large spring freshets coming through triggering slope erosion. In many cases, those processes have actually slowed down since then.
- Q: Brent Taillefer: Just curious if there were areas that surprised you with more erosion or more change than you expected?
- A: *Mike Porter:* We actually saw the opposite, if you look at what was predicted at that time versus what is there 35 years later, there is less change in the natural stability than might have expected.
- Q: Brent Taillefer: So there is a 1.8 metre variance in the reservoir level and that's to help stop the erosion?
- A: Andrew Watson: We are licensed to move the reservoir up and down by 1.8 metres in order to generate power. Because Site C would be downstream of Williston, we don't need it for seasonal storage, it's designed as a flow-through facility. So because of that we would want to keep it as high as possible, much like Revelstoke. Site C would be best operated in a 1 foot range but we do need the ability to go further than that in unusual circumstances. So we are proposing a 1.8 metre range and that range then factors into our erosion predictions.
- Q: Brent Taillefer: So by holding the reservoir steady, when the reservoir is full will it have an impact on the downstream flows?
- A: Siobhan Jackson: We have a preliminary downstream effects report that we want to share with you and are in the process of setting up a meeting to go through the report with you. Our downstream operating range would remain the same, but you will be closer to the release point. We have the modeling in hand so will be able to show you what it will look like in different scenarios and address questions about sediment and intakes.
- Q: Bryant Bird: In terms of the Halfway River flows, it looks like last year's flood might becoming the norm, does that change anything in terms of erosion?
- A: *Mike Porter*: No, doesn't change anything in terms of erosion. For our flood impact line we take into account a 1 in 1000 year flood event. By comparison, the flood on the Halfway last year was considered a 1 in 30 50 year event.
- Q: Gordon Davies: Taylor was hoping to see a water coordination type study so that we would really know for the area what we were looking at. As far as I know that hasn't happened.
- A: Siobhan Jackson: Let's talk about that when we're up here with Amy Pryse-Phillips to go through the downstream effects report in the next 2-3 weeks.
- C: Andrew Watson: We have done quite a bit of work looking at modeling of tributary flows and that is part of the work Amy can talk about.
- C: Judy Kirk: In the interest of time, I will just ask if you have any questions for Don on highway realignment, as opposed to going through each section. Then we can move on the Recreation.

- Q: Gordon Davies: For highway realignment, is the aggregate sources studies part of the work that has been done?
- A: Don Wharf: We have done some preliminary studies and investigations indicate that there is more than enough good quality aggregate in what would be the flooded area, so that would be our primary source for aggregate. We are still working at whether we would use engineered rip-rap or natural and the sources for natural rip-rap, which would be off-site.
- Q: Gordon Davies: So there should be no impact to the area in terms of aggregate?
- A: Don Wharf: That's right, our plan is to take aggregate almost directly adjacent to where the roadwork would take place to minimize impact to haul and traffic.

Siobhan Jackson reviewed the proposals for recreation sites and public safety and use of the proposed reservoir during construction and operations.

- Q: Brent Taillefer: Where does that 3km mark go, where boaters can't go past?
- A: Siobhan Jackson: It would be above Old Fort. We don't have it marked exactly. The best thing to do is to find a good visual marker of where that zone would be.
- Q: Brent Taillefer: Will boaters still be able to go up the Moberly?
- A: Siobhan Jackson: We anticipate that the Moberly will be one of the last areas to be re-opened due to debris and steep slopes. The areas closest to the dam and the Moberly would be the last places to be opened. We don't need to close it off from an operational stand-point but in terms of debris and safety management.
- Q: Brent Taillefer: How do you plan on stopping boaters?
- A: Siobhan Jackson: It will be mainly signage and communication. There may be a debris boom in place depending on the level of safety, we don't tend to fence off areas.
- C: Brent Taillefer: Just curious, there's a certain group that the worse the river is, the more they want to boat up it.
- C: Andrew Watson: Once you get past Wilder Creek, there are steep slopes on both sides and up the Moberly. It's more of an isolated area. We will need a debris boom right at the approach channel, and we are also looking at a permanent deflection boom around Wilder Creek, but that doesn't have to necessarily interfere with boaters. We would be interested in hearing about people's interest in using the Moberly Reach.
- C: Judy Kirk: I think it's important that as representatives of local government, you understand what BC Hydro is saying about when the reservoir would be available for use. Siobhan, perhaps you could just review the information on Public Safety on page 25 again.
- A: Siobhan Jackson: Sure, I will review that again.
- Q: Melany de Weerdt: So when you say year one, what does that mean?
- A: Andrew Watson: 12-months after filling of the reservoir, we would anticipate the boat launches being open. So that would be 2022 subject to certification on the schedule we have discussed today.

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- Q: Charlotte McLeod: When we met with Russ Tyson, he was saying it is very difficult to get permission to close off access on waterways.
- A: Siobhan Jackson: Yes, this is our proposed approach but it would require a permit from Transport Canada.
- Q: Alan Stebbing: Has there been any discussion about water rescue on the reservoir? This Site C reservoir is much more accessible than Williston or Dinosaur reservoir. For Site C, there would be an access point at Hudson's Hope and the reservoir would go along the highway. You would see more recreation and that's one of things BC Hydro is pushing. But the fact is there is only one emergency services boat in the Peace region.
- C: Andrew Watson: Where we have considered it, is that we know NavCan will push us to open it early and move to a communication strategy as opposed to closure. We have to be careful about where we are encouraging people to go, so we have considered that in our recreation sites. The boat launch near Hudson's Hope will require the least monitoring and is the least isolated. That is great feedback and we will consider it. Williston is much more isolated and it more hazardous because of that. As long as you communicate that, it is up to people to take precautions.
- C: Siobhan Jackson: One of things we have done is to put in more radio-feeders on the Williston to support boating safety. Also we do try to locate our sites in the safest areas to start with. That is something we do across the system.
- C: Alan Stebbing: I am not suggesting that BC Hydro should build a rescue system. But BC Hydro should consider building capacity in the region to respond to incidents, regardless of whether incidents are on the new reservoir or Williston or Dinosaur.
- Q: Bryant Bird: Emergency preparedness is part of my portfolio and I would like to know what assistance BC Hydro will be giving us in terms of this?
- A: Andrew Watson: We are developing an emergency preparedness plan for the construction phase and what we are planning on doing will be part of the EIS. We need to develop that as part of dam safety regulations, before you start any in-water works.
- C: Bryant Bird: The onus is consistently being pushed onto us as local governments and unfortunately with the oil and gas industry, we are tapped out. We don't have the resources to prepare volunteers to deal with emergencies, early warning systems, weather systems because we have micro-climates here.
- A: Andrew Watson: Weather stations are being installed at the Halfway right now and that's one of our strategies to get better climate data.
- C: Bryant Bird: I am in agreement with Alan in terms of capacity building. There are social impacts of the project, stress on the community and in terms of our services. We already are struggling to recruit people to run what we have now. Workers will accept certain services and we aren't able to provide that. We have already had to close the pool because there is no one to work there.
- C: Siobhan Jackson: The general approach to the assessment on the social and community side. The BC Stats model that we are running will help define the changes to population. Then we will take a

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look at whether people are moving here to live here; if that's the case they will be paying property taxes so there is a mechanism to help deal with this. Although it's probably a short-term pressure as well, the ability to respond to a change in the population quickly.

Andrew Watson reviewed 85<sup>th</sup> Avenue Industrial Lands and the multi-use of this site for the Site C project.

- Q: Gordon Davies: Is it in the City of Fort St. John boundary?
- A: Andrew Watson: It is right outside; it's in the Peace River Regional District. 85<sup>th</sup> Avenue is the city boundary.
- Q: Charlotte McLeod: I was talking to a fellow who lives out there and he was saying conveyor is going to go under the road, and he was just saying he couldn't see how that would work.
- C: Andrew Watson: Yes, it will be going under in a culvert.
- Q: Judy Kirk: What have you heard from residents on the conveyor?
- Q: Charlotte McLeod: Well, you hear both sides. People are wondering about dust and whether trucks would create more dust.
- A: Andrew Watson: We think the conveyor has a lot more opportunities to mitigate for noise and dust. They can be better managed and contained.
- Q: Troy Gould: The dam site is 6 km from 85<sup>th</sup> Avenue and the conveyor belt is only 3km, so you truck the remainder of the distance?
- A: Andrew Watson: Yes, we need an area to create a stockpile area and for trucks to load and turn around and as you get closer to the dam site that becomes difficult from a space perspective.
- C: Charlotte McLeod: So I could tell this fellow I was talking to, I could tell him to go online and read this and fill in the feedback form or ask someone to call him back?
- A: Andrew Watson: Yes, definitely. This is the kind of feedback we need to amend details and focus our mitigation plans.
- C: Charlotte McLeod: I think if they get a better understanding of how something is going to work, it's valuable.
- Q: Charlotte McLeod: Is there a mitigation plan for the site post-construction?
- A: Andrew Watson: For the transportation option, we will be removing the conveyor and replace the soil and restore agricultural capacity. We heard some comments on that this morning, which we have taken in. But the site itself, we want to discuss post-project use first as it alters what we do with the site. If the best post-project use is light industrial, then the restoration will be to flat site with roads and connections to services. We think there is flexibility in post-project use, so we want to gather comments.
- Q: Gordon Gould: Is this BC Hydro-owned land?
- A: Andrew Watson: Yes, BC Hydro purchased this land under the Passive Acquisition Program.
- Q: Charlotte McLeod: Do you have good interest in people wanting to sell land to you?
- A: Andrew Watson: The Passive Acquisition Program has been around for a while; it's one of the things that the BCUC recommended BC Hydro establish. It's fair to say there has been a renewed interest in the program recently.

### MEETING DETAILS BC Hydro Site C Clean Energy Project Project Definition Consultation, Spring 2012 Taylor – Local Government Meeting April 18, 2012, 1:00 p.m. – 3:00 p.m. Taylor Community Hall 9896 Cherry Avenue Taylor, B.C.

- C: Judy Kirk: Okay, I would like to do a round-table and ask each of you for final comments or questions. Let me start with you, Alan.
- C: Alan Stebbing: I would just like to reinforce the need for capacity building on the emergency services side and the continued consultation with the community to keep people informed and retain clarity of the process.
- Q: *Melany de Weerdt:* A have one question on the debris material, have you done any cost/benefit analysis on the possibility of bio-energy project in conjunction with what you are doing?
- Q: Siobhan Jackson: We would do a debris management plan as part of clearing plan and looking at options for what do to with it. Some unusable wood would be disposed of by burning once a permit was obtained, but we are also looking at ways to minimize that debris in the first place, as well as looking other options. We would look to industry to provide those options.
- C: Brent Taillefer: Thanks for coming out and we look forward to meeting with in the future.
- C: Bryant Bird: Thanks for having the meeting and wanted to flag the need for capacity building, and the issue of social impacts, and the OCP process and more information we can get from you, the more that will help us shape our community.
- C: George Barber: Interested in seeing what the downstream effects will be.
- Q: Betty Ponto: I am curious about the increased impacts to services, is that cost part of the project cost or is it expected that will be covered in another way? The theory is that property taxes will pay for some of that, but it reality there could be a big gap in there.
- A: Siobhan Jackson: Anything we propose as a direct mitigation is a project cost. There will be a balance, British Columbians are served by the Medical Services Plan and that will still apply to British Columbians working on the project. So how quickly have the services response. BC Hydro will pay for direct services as part of the project, for example health and safety at the site, so workers don't add to pressure on your doctor services in town. If we see a gap and propose a response, then it will be a project cost. But will look at people moving here to become new residents, they are now part of the community. That's why it's important for us to do planning around how many people will live in the community versus living in camps. A camp is actually mitigation against pressure on community infrastructure and systems, as it is very self-sufficient, so there is a balance between the two.
- C: Troy Gould: Thank you and I look forward to downstream effects meeting.
- A: Gordon Davies: Just want to emphasis that the offer remains open for weather station location at the river pump house to study micro-climates. Who issues water license for withdrawal when river changes to reservoir or lake?
- A: Siobhan Jackson: The BC Water Controller issues all license to us and anyone else who wants to draw water.

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Dave Conway wrapped up the meeting and encouraged participants to complete the feedback form and to encourage friends and others to participate.

The record notes that the meeting ended at 3:00 p.m.

MEETING DETAILS	BC Hydro Site C Clean Energy Project
	Project Definition Consultation, Spring 2012
STAKEHOLDER	Hudson's Hope – Stakeholder Meeting
MEETING	April 19, 2012, 1:00 p.m. – 3:00 p.m.
	Hudson's Hope Community Hall
	9904 Dudley Drive
	Hudson's Hope, B.C.

Notes from a multi-stakeholder meeting for the BC Hydro Site C Clean Energy Project held with stakeholders and representatives of the Site C Project on April 19, 2012 at Hudson's Hope Community Hall, Hudson's Hope B.C.  FACILITATOR  Judy Kirk, Kirk & Co. Consulting Ltd.  Renee Ardill Robert Bach Bev Bach Dennis Beattle, Vice President of N.B.G. Ron Enderlin Jane Enderlin Lori Fox, Durango Oilfield Greta Goddard, Historical Society Hudson's Hope Vic Gouldie Gruff Billy G Pieter Haagsman Jan Haagsman, P.L. Ventures Ray Jackson, Horseshoe Creek Arlene Kosolowsky Sam Kosolowsky Sam Kosolowsky Fay Lavallee, St. Peter's Church Aaron Lepine Bill Lindsay Lynda Luchinski, BC Ambulance Shannon Mason Richard Mason Shelia Martin Elinor Morrissey , Historical Society Hudson's Hope Darcy Millar Ross Peck Roger Porter, Hudson Gregg Sheldon Ed Sykes June Sykes June Sykes June Sykes Darren Traicheuich, RCMP Dick van Nostrand		
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Robert Bach Bev Bach Dennis Beattle, Vice President of N.B.G. Ron Enderlin Jane Enderlin Lori Fox, Durango Oilfield Greta Goddard, Historical Society Hudson's Hope Vic Gouldie Gruff Billy G Pieter Haagsman Jan Haagsman, P.L. Ventures Ray Jackson, Horseshoe Creek Arlene Kosolowsky Sam Kosolowsky Sam Kosolowsky Fay Lavallee, St. Peter's Church Aaron Lepine Bill Lindsay Lynda Luchinski, BC Ambulance Shannon Mason Richard Mason Shelia Martin Elinor Morrissey , Historical Society Hudson's Hope Darcy Millar Ross Peck Roger Porter, Hudson Gregg Sheldon Ed Sykes June Sykes Darren Traicheuich, RCMP Dick van Nostrand	FACILITATOR	Judy Kirk, Kirk & Co. Consulting Ltd.
Darren Worosheld, RCMP	ATTENDEES	Robert Bach Bev Bach Dennis Beattle, Vice President of N.B.G. Ron Enderlin Jane Enderlin Lori Fox, Durango Oilfield Greta Goddard, Historical Society Hudson's Hope Vic Gouldie Gruff Billy G Pieter Haagsman Jan Haagsman, P.L. Ventures Ray Jackson, Horseshoe Creek Arlene Kosolowsky Sam Kosolowsky Fay Lavallee, St. Peter's Church Aaron Lepine Bill Lindsay Lynda Luchinski, BC Ambulance Shannon Mason Richard Mason Shelia Martin Elinor Morrissey , Historical Society Hudson's Hope Darcy Millar Ross Peck Roger Porter, Hudson Gregg Sheldon Ed Sykes June Sykes Darren Traicheuich, RCMP

MEETING DETAILS	BC Hydro Site C Clean Energy Project
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SITE C PROJECT TEAM ATTENDEES	Dave Conway, BC Hydro Siobhan Jackson, BC Hydro Judith Reynier, BC Hydro Andrew Watson, BC Hydro DonWharf, BC Hydro Mike Porter, Site C Project Team Emilie O'Genski, Kirk & Co. Consulting Ltd., Meeting Recorder
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### **KEY THEMES**

### Workforce

- Participants expressed an interest in knowing approximately how many jobs could be available for residents of Hudson's Hope.
- Participants wanted to know what percentage of jobs would be skilled and unskilled.

### **Outdoor Recreation**

- Participants expressed that BC Hydro did not follow-through in repairing and operating boat launches and other commitments to the community, such as the early water warning system.
- Participants said that people in Hudson's Hope do not trust BC Hydro to deliver on its promises of recreation facilities and boat launches, based on previous lack of delivery.

### **Impact Lines**

- Participants expressed concern that BC Hydro's slope stability predictions for the Williston Reservoir were not accurate and therefore expressed a lack of confidence in slope stability predictions for the Site C reservoir.
- Some participants stated that BC Hydro should be doing more to communicate with impacted property owners.

### **Community Benefits**

- Participants expressed a desire to know what community benefits BC Hydro has planned to help offset or compensate for the impacts of Site C on the community.
- Participants stated that BC Hydro should do more to deliver community benefits to Hudson's Hope, such as ensuring availability of doctors, school and recreational facilities.

The record notes that the meeting was called to order at 1:00 p.m.

### **DISCUSSION**

(Abbreviations will be used and mean – Q: Question, A: Answer, C: Comment)

### 1. Welcome and Introductions – Judy Kirk

Judy Kirk welcomed participants to the multi-stakeholder meeting, explained the format of the meeting and introduced the Discussion Guide and Feedback Form. Judy informed participants that the meeting was being recorded for accuracy. Roundtable introductions followed.

### 2. Review of Discussion Guide and Questions and Answers – All

Dave Conway reviewed the introduction to the Discussion Guide, including ways to participate in the consultation and the schedule of open houses and the list of information items and consultation topics.

Dave Conway reviewed BC Hydro's energy planning, design of Site C and key project benefits.

- Q: Ross Peck: There are other issues that will require consultation and I'm wondering if there are other formats like this being scheduled to address that variety of issues?
- A: Judy Kirk: In the fall BC Hydro will come back out for consultation likely in September or October. The topics will likely include agricultural land, access roads, clearing plans and others. If you have something you want BC Hydro to look at I'm happy to talk about it.
- Q: Ross Peck: There are other topics addressed before in Stage 2 like fisheries and wildlife. Where will we get a chance to talk about that?
- A: Siobhan Jackson: The environmental assessment process, which is led by the BCEAO and CEAA are coming with consultation in the first two weeks May. The focus of that and the current public comment period will be looking at the draft Guidelines for the Environmental Impact Statement, that is our application for environmental certification, so that will cover the full range of topics. The next milestone, once the Guidelines are final, completing an application for environmental certification and we are working to an early 2013 completion date. That application will include input from these consultations and all of our studies and mitigation plans. Once the application is submitted, then that's subject to review. 2013 and 2014 are the timelines when it will be reviewed by the agencies fish, wildlife, heritage and many, many other topics.
- Q: Ross Peck: OK, clear as mud. It's confusing as to who is doing what and as a person who has an interest in this process, where our time could be best used.
- Q: Shelia Martin: What is biomass?
- A: Dave Conway: Biomass is generally wood fiber but it can be manure or anything where you generate electricity from something that can produce methane gas.
- Q: Ross Peck: On page 6 you mention a three-year timeline for environmental assessment review. Will there be changes now that there are new timelines in place that were recently announced?
- A: Siobhan Jackson: We have not heard of any changes. We already have a joint agreement with the agencies that outlines the timeline and we are already on that track so we don't anticipate any changes.
- Q: Ross Peck: Didn't I hear two years and if August 2011 was your start date then what?

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- A: Siobhan Jackson: The start date was when we filed the Project Description Report, a few months early. So we are about 10 months into our three year timeframe. So right now any changes wouldn't change our two-year horizon.
- C: Judy Kirk: A good question for the regulator as well, Ross.

Andrew Watson provided information regarding transmission update.

- Q: Bill Lindsay: Will you be following the existing right-of-way?
- A: Andrew Watson: Yes, we will be following the existing right-of-way.
- Q: June Sykes: The existing 138kV line will stay where it is?
- A: Andrew Watson: Yes, the north lines that services the other side of Fort St. John have no proposed changes.

Siobhan Jackson provided information on planning underway regarding worker accommodation and mentioned that worker accommodation will be a consultation topic in the fall 2012 consultation.

- Q: Bill Lindsay: What would be the approximate split of the skilled versus unskilled workers? I'm assuming 80% and up.
- A: Siobhan Jackson: I don't have the answer to that yet, but it is one of the things we are looking at in workforce planning, as well as the specialized skills, like those working on turbines. We are looking at the specifics so we can see how many workers will be coming from out of town.
- Q: Dennis Beattle: What is your prediction on how many workers would be from Hudson's Hope? It's going to be a Fort St. John dam, so what percentage will be from here? You must have an idea of percentage and where they are going to work and timelines.
- A: Siobhan Jackson: Well there will be many different types of jobs. We anticipate that people in Hudson's Hope will find work with the Hudson's Hope berm, Highway 29 realignment or clearing the reservoir. It's a commutable distance from here to Fort St. John but it's hard for me to say how many people from here want the work.
- Q: Dennis Beattle: This basin will be logged and scrubbed?
- A: Siobhan Jackson: All merchantable timber will come out and we are working on a clearing plan that we'll come back with to you for consultation in the fall. A lot of other vegetation will come out as well. We'll leave what we can to help with erosion and sediment control.

Andrew Watson provided an overview of the preliminary impact lines and land use around the proposed reservoir. Mike Porter reviewed the four impact lines and proposed shoreline protection at Hudson's Hope.

Q: June Sykes: In the first five years, you expect some kind of erosion to happen. In other words, you don't have a clue what will happen. You don't even know and maybe we won't even need to move. Sounds like you're very uncertain.

- A: *Mike Porter*: The erosion process is the most active in the first five years. It's a process that depends on the type of materials in the area. For bedrock, the rate of erosion will be very slow. The erosion around sands and gravels will happen quickly until the beach is armored. Where we have silts and clays, the process would continue for a longer period of time.
- Q: June Sykes: What about hydrologic pressure? I'm talking about when you have all the water pushing against the edges. Have you factored that as well?
- A: Andrew Watson: Yes, we have factored that in and we are continuing to monitor.
- Q: *Bill Lindsay*: Last night, one display board said that the reservoir is estimated to be one of the most stable in BC Hydro.
- A: *Mike Porter*: That description is in terms of the reservoir levels or the rise and fall of the water, operating within the 1.8 metre range.
- A: Andrew Watson: That's right, we mean stable in terms of the water levels. It will be much like Mica Site C is long compared to the other reservoirs.
- Q: Sam Kosolowsky: I'm looking at the last part of the section here and I see that it will impact my property a lot. Why haven't landowners that will be directly affected been approached already?
- A: Andrew Watson: Our approach has been to make every attempt to meet with landowners privately and bring the experts who have done the work.
- A: *Judith Reynier*: I believe your property is behind the berm. We were out earlier on and we met with you during the Hudson's Hope berm consultation.
- C: Sam Kosolowsky: Yes, but it will still be affected. I know you came out and meet with me but I haven't heard a word from anyone since Damien and the engineer were around. That's not the way you want to do business here and be on the good side of the community. Personally I'm going to say, I've lived here since 1970 and the stuff I've seen BC Hydro do for this community isn't right. They say we'll do this and this and this, and the community ends up holding the bag. We're the one who have to look after it. For example, one thing you do is put up these warning lights for the dam and they just don't work. You pawn them off on the community and they haven't been tested and they don't work. Why should we be doing it? Same as your boat launches. One was finally finished after 30-years. I say it's just terrible.
- Q: Dennis Beattle: We've been to a few of these meetings and you know, I feel like you just come to our community to give us a warm and fuzzy feeling about how good BC Hydro is going to do. When you step back, four years ago, we started dealing with BC Hydro on debris clean-up on Williston, and a boat launch which was supposed to be started within 12 to 14 months. We have it in writing. The debris has not been cleared and the boat launch isn't even started. There are all these excuses. At these meetings you think you'll just make this all go away, everyone will be happy, you'll get your job done and then go away. How much debris will be cleaned-up off of the new dam? Probably none just like the current reservoir. I'm worried about the sloughing too because the wind will be higher than it is now and the sloughing will be way more than what's described in this Discussion Guide. It's all proven on the big dam, it's not fair to our community. The BC Hydro performance on the last dam hasn't been fair to the community at all.

- Q: Bob Bach: I have to agree with these guys. These consultations for the last four years, are really are more like information sessions, not consultation. They just tell us how you're going to build the dam. You're aware that we all have properties that are affected here. As far as consultation and personal communication as far as something really listening to your specific concerns and taking dealing with them. Instead, our concerns are taken away and we get very little, if any, feedback. We are just people out here wondering for years what is going to happen. BC Hydro response is pathetic and I would really like to see that changed as we go forward. As for my question, the fluctuation on the reservoir will go up six-feet? How many times a day will that happen?
- A: Andrew Watson: The maximum operating range is six-feet. But for the vast majority of the time, it will operate in the top one-foot. How we operate on a daily basis depends on what is going on across the system; Site C won't come on for ten years so we are developing operating scenarios to present to the regulator as part of our permitting process. These models will be described in the EISG that is out for public comment right now. The basic answer is that the reservoir would, for the majority of the time, operate on the top foot. Unlike Dinosaur Lake that can drop several feet within an hour, the maximum it will move will be about 10cm an hour.
- Q: Fay Lavallee: How closely do these stability impact lines compare to the information that was given out thirty-years ago?
- A: Mike Porter: In a lot of locations the furthest impact line corresponds well with the old safe line. The old residential safe line was trying to take into account the same information. The biggest differences that we see are that we have a much better model of the topography in the area. That's a big change. Secondly, we have a better understanding of the shoreline erosion processes where we've learned from Williston and others. Then there are other sections where the proposed shoreline is bedrock and on those locations our impact lines are closer to the reservoir. They are quite similar.
- A: Fay Lavallee: Do you think there is more sloughing now with all the logging? The highway isn't stable and is that taken into consideration?
- A: Mike Porter: In terms of logging on steep slopes outside of the immediate valley, those are good observations. But what we've found talking to people involved in these studies in the 1970s and 190s versus what they've seen now is that lower in the valley, the overall the stability conditions have improved compared to 30-years ago. Our suspicion is that when those studies were carried out, the river had just been regulated and we stopped seeing the big spring freshets that were causing a lot of erosion at the base of slopes.
- Q: Renee Ardill: Well, I don't think you've learned anything. You are sitting there and I don't think you have a clue. You're just trying to make us all feel good about how little it is going to erode. Your book here says unlikely landslides but everyone in this room knows they all slide all the time. How in the hell are they not going to slide when you fill it with water, when they do it all the time.
- A: *Mike Porter*: We aren't saying they aren't going to slide but the lines define the outer limit of the potential for those events to occur. So those are based on our predictions of what unlikely events will be.

- Q: Dennis Beattle: What have you learned about erosion on Williston Lake? I believe BC Hydro has had to recently purchased land that wasn't supposed to be eroding. I do not believe that you can tell what erosion will take place on any dam. Williston is still eroding and the dust storms are 200-feet high. You're trying to give everyone a nice feeling and we've seen the disasters on the other dam.
- A: *Mike Porter*: We aren't saying it won't erode. One of the key thing we've learned from Williston, and the Dunlevy area in particular, is that there was an appreciation in the past that beaches on reservoirs would form at a certain angle and once that slope angle was achieved the erosion would stop. In sands and gravels, that's a valid assumption. But where there are silts and clays that go into suspension and moved off into the shore and that theory that a stable beach angle will form just isn't true. We've had to build that understanding into our predictive tools.
- Q: Dennis Beattle: Your theory about sand isn't true. It moves and I watch it every day at our lodge on Williston where our beach moves every year. That beach is probably 200-acres big and we see it move every year. It's 100% sand and we watch it move every single year.
- Q: Roger Porter: Andrew, regarding fluctuation. For the pondage behind Peace Canyon, we were told it would be in hydraulic balance and BC Hydro left us with the impression that there would be extremely low levels of fluctuation but as you know it fluctuates a lot. I wonder if the same will happen at the pondage behind Site C.
- A: Andrew Watson: The physical capability of Site C to move the reservoir up and down is about 1/10 of Dinosaur. We talk about Site C in terms of hydraulic balance and that's what it is designed to do, but as in Dinosaur, depending on how many generating units are out of service at Bennett or at Dinosaur in a given day or longer period, there is an imbalance that gets adjusted in the reservoir and that would be the case in Site C. That's why there are small fluctuations.
- Q: *Judy Kirk*: Does the environmental review include a commitment about the fluctuation of the reservoir?
- A: Andrew Watson: We are applying for a 1.8 metre operating range. We will be describing how we are going to operate within that range and the associated environment and socio-economic effects and those will go into the environmental assessment. That's also the process when we do water use planning, when we re-did the water use planning for Williston and the Peace, and it will be embedded in our application and there will be opportunities for public comment.
- A: Siobhan Jackson: After the environmental assessment process, any requirements or constraints will be embedded into our water license. There will be a 6-foot maximum fluctuation.
- Q: Bill Lindsay: What are you doing with the surface of the berm, will it be leveled off?
- A: *Mike Porter*: We can talk more about it in Siobhan's recreation section, but what we've heard is that the upstream end at the ferry landing would be left with vegetation and the downstream end would have walking trails.
- Q: Bill Lindsay: Will it be an impermeable barrier? It's an interesting engineering exercise because there is water coming out of the banks.
- A: *Mike Porter*: There is a lot of seepage in the banks. At the outset, when the reservoir is filled the banks would feel that. What would happen over time is that the flow of water would be from the

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banks in to the reservoir, we don't want to impede that. The berm would be constructed of granular material to allow flow through and have surface drainage features.

- Q: Sam Kosolowsky: So you're saying that the berm will be made out of the material in Zone B?
- A: Don Wharf: One option for material we are looking at is taking material from Zone B by flattening the slope. This material would be for the berm core and it would be protected by rip rap material. Another option is downstream in the islands that would be flooded.
- Q: Sam Kosolowsky: What would the finished slope be?
- A: Mike Porter: Roughly 2-1 would be the flattest. It's about 26 degrees.
- Q: Sam Kosolowsky: In other words, you are making it pretty steep. You need something that isn't round at the bottom to hold it in place.
- A: Andrew Watson: Yes, that's right.

Andrew Watson introduced the overview of Highway 29 preferred realignments. Don Wharf reviewed the preferred realignments or corridors in the six segments.

- Q: June Sykes: How long is the bridge at Lynx Creek?
- A: Don Wharf: It's 160-metres long.
- Q: Ross Peck: I think you said might have said this earlier, but will these plans incorporate twinning or passing lanes especially at the bases of the hill?
- A: Don Wharf: There are no truck lanes or passing lanes within the scope of Site C work that we've identified here. I know the Ministry of Transportation and Infrastructure is monitoring and are starting planning studies particularly on Cache Creek hill but I'm not aware of any other sections.
- Q: Ross Peck: It could be something we see down the road?
- A: *Don Wharf:* Possibly, but I am not aware of that.
- Q: Ross Peck: In relation to the cost of all this, is the road improvement included in the \$7.9 billion?
- A: Andrew Watson: Yes, it is. There is \$530 million bundle that includes highway realignment, clearing and other components. We have an 18% project contingency, and that is a component of that. So 18% contingency on top of that.

Siobhan Jackson reviewed the proposals for recreation sites and public safety and use of the proposed reservoir during construction and operations.

Q: Bob Bach: I've asked before but that recreation site at the old ferry landing, as it's used now, there can be half a dozen truck trailers there and there isn't even a boat launch at all right now. I can't understand why a full-use boat launch couldn't be made there. Also, why are all these facilities are day-use only? On Williston Lake there are no campgrounds. There are campgrounds near Mackenzie that are maintained by BC Hydro but on our end there are no camps and the municipality can't afford to maintain those. Part of the problem I see here is that people in Hudson's Hope don't trust BC Hydro because of all the wrongs that have been done in the past. I can go on about power down 12-Mile Road, sloughing and BC Hydro not wanting to deal with it for

**MEETING DETAILS** 

STAKEHOLDER MEETING BC Hydro Site C Clean Energy Project
Project Definition Consultation, Spring 2012

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the last 40-years and now they are dealing with it because of Site C. I know that's not why you're here but when BC Hydro has made promises in the past. I find it's interesting that you talked about creating recreation opportunities for the workers who will be building Site C but you don't find it necessary to build recreation facilities for the employees and their families who live here in Hudson's Hope. I've been pushing BC Hydro for 30-years to build recreation centres for Hudson's Hope for the employees and their families in order to make a better work environment, which everyone in the world knows makes for better productivity and BC Hydro refuses to look at such things. I can go on and on. Lynx Creek boat launch took 15 years to get BC Hydro to do that. It's really been pathetic. BC Hydro's involvement in this community as far as keeping medical facilities and schools open isn't great either. We should have full time doctors here, it should be a given considering your connection with the provincial government. We have fewer students in our schools because BC Hydro provides vehicles to commute to Fort St. John where they have better facilities. It's so frustrating listening to these wonderful plans and I don't have any faith or trust that this stuff will get done. I had a chat with a new BC Hydro employee yesterday who was offered a a compensation package where they would pay fair market value for his home and give him 5% inconvenience compensation. That fellow paid about 7% in commission to buy that house and BC Hydro offers him 5% for inconvenience. It's just not fair. The way BC Hydro this is approaching this is just sad. It angers me and I don't know how better to say it. There are so many wrongs from people affected and I know it's not your fault but one of the problems in dealing with Hudson's Hope and people in this room is that BC Hydro has a poor track record about being a bad corporate citizen. BC Hydro doesn't even meet with our Council or Mayor unless it wants something. You need to be meeting on a quarterly basis to make it a better place for your employees to live. It just makes me so mad. I bet you the people in this room would say the same thing. We're frustrated, they are upset and anger and it's because of the past. We don't trust BC Hydro.

- C: Dave Conway: Thank you for your comments and we understand.
- Q: Dennis Beattle: It goes back to Williston Lake. We have no recreation on Williston Lake. We have no boat launch. We have it in writing and still nothing. Nothing for the people and now you're going to come along with Site C and tell us all this stuff about how great it will be. It's a bunch of bullshit. It's not going to happen here, just like it didn't happen on Williston. I think if we don't get something to happening on Williston Lake soon then the Vancouver Sun is going to get a write up on what's happening around Williston Lake. If we don't get some answers in the next 6-months, then it's going to be all over Vancouver about BC Hydro. I'm the chair of membership for BC Liberals up here and the promises that you make to these people seems too far-fetched.
- Q: Bill Lindsay: On the D.A. Thomas Road are you going to do anything about the creative use of car bodies?
- A: Don Wharf: The District of Hudson's Hope has brought that up and yes, we are doing something about that.
- A: Ross Peck: There was car bodies on a creek up the lake that we decided to get rid of and the next year the bridge washed out. Be careful about what you do.

Andrew Watson reviewed 85<sup>th</sup> Avenue Industrial Lands and the multi-use of this site for the Site C project

- Q: *Rita*: What is the post-project use for the 85<sup>th</sup> Avenue Industrial Land after the construction of the dam?
- A: Andrew Watson: We've proposed a conceptual road network and an area that would be available for light industrial use to start the discussion. What we show on page 33 is conceptual; we have a back slope that would be roughly 3:1 and quite walkable. After construction of the dam, we've shown a return to the current zone use, which is light industrial. Our interest in the land is just for the project, it is owned by BC Hydro we wouldn't continue to invest in that land after the project was done. Post construction we would give it up or probably sell it after.
- Q: *Bill Lindsay*: What is the purpose of the berms?
- A: Andrew Watson: There are a couple reasons like security, noise and dust mitigation. Because our extraction would take the material down to the dam site, you wouldn't be able to see the activities. It's mostly for a noise and security barrier.
- A: Siobhan Jackson: With further design, a site specific plan would be put in place and it a higher berm would be beneficial that could happen.
- Q: Fay Lavallee: I just want to know how you people feel about this third dam coming to Hudson's Hope. What is your opinion of it? We've had three dams three impacts to this community and there are lots of people on the river bank as well. There is no other area affected so much by this water. Has BC Hydro given any consideration to how we all feel? We are just a few people in this little community but we have been affected more by BC Hydro than anywhere else in the province. I wonder if BC Hydro has looked at it from a human view point.
- A: Dave Conway: I can tell you that in our discussions related to the overall project, we think about it all the time.
- Q: Fay Lavallee: The dinky little boat launch you want to put down here at the ferry landing should be big and beautiful and something that we can be proud of. We need something that people in this community can use and love. But no, we have to go and beg and beg and maybe it will get built. I think when you're studying it you should come at it with a human aspect to what we actually feel inside. It almost makes me cry.
- Q: Bob Bach: The first person who came to us for community consultation was Helen Morrison. She walked up to our property and looked at the river valley and said, "Why would anyone want to flood this valley?" She's no longer working for BC Hydro as you know.
- A: Ross Peck: Like Dennis, I wonder also why you came here to discuss recreation. I would like to have an interpretation of how you would visualize recreation changing on the river during the construction period. Looking at the bullets on page 25, there are all cautionary and make it seem like going on the water is a no-go because of construction and because of the land clearing and all of that. What will the general scenario be?

- A: Siobhan Jackson: When construction commences, we would propose to close the dam area but we won't be allowed to close anything unless we get a permit from Transport Canada as part of the Navigational Waters Act. The closure at the dam site area would be permanent during and after the construction.
- Q: Ross Peck: So that would be 7-10 years but you can no longer put your boat in at Taylor.
- A: Siobhan Jackson: The closure at the dam site would be permanent starting in year one of construction.
- A: Siobhan Jackson: Further upstream, we only anticipate site-specific closures associated with specific work going on at a given time. We won't be on the whole river stretch at one time. We'll be moving from east to west and we'll come in during our fall consultation with a plan. There won't be significant closures besides the dam site.
- Q: Sam Kosolowsky: When you log the islands, will you remove the stumps?
- A: Siobhan Jackson: We are working on our clearing plan and will be coming back in the fall to consult with you on that. The trees that are cleared would be cleared to the ground as is the standard for the forestry industry in British Columbia. We will only propose stump removal around the construction sites or boat launches. In navigation zones, above 455 we are looking at removing all woody vegetation and below 455 removing merchantable timber and other vegetation based on site-specific considerations.
- Q: Sam Kosolowsky: With fluctuation there might be stumps sticking out?
- A: Siobhan Jackson: No, I don't think so, we will be cutting to ground and we are considering a navigation clearance of over five metres.
- Q: Dennis Beattle: I was given some information on the land in Fort St. John and I hope that it's wrong. We were told that BC Hydro came in and bought the 85<sup>th</sup> Avenue Industrial Lands without notifying any of the Fort St. John residents, no meeting, just came in and purchased. Then we were told that it was chain link fenced and the municipality was against it or it didn't fit their bylaw, there was something wrong and they took the fence down and went to the dump. And that was just a couple weeks ago.
- A: Judith Reynier: That sounds like some misinformation. We've bought parcels of land from four different property owners. The first 110 acre parcel was listed for sale. The second parcel property owner approached us and basically asked us to purchase it after we'd been doing some drilling to establish that materials in that area were suitable for what we needed and the owner as aware of our drilling program and said you might as well buy it now, that is sort of how the conversation went. Then, there were two parcels within the lands and the owners were amenable to selling the lands to us at that time.
- Q: Dennis Beattle: And was it fenced and was it taken down?
- A: Judith Reynier: No, it wasn't, not that I know of.
- Q: Dennis Beattle: Okay, I'll look into this some more.
- A: *Judith Reynier*: We are doing weed eradication around the property and we will be looking to secure it sometime in the future but not right now. The zoning is light industrial zoning.
- A: Dave Conway: Dennis, as a follow up, we did provide notification and talk to the Peace River Regional District and City of Fort St. John prior to acquiring the lands.

- Q: Dennis Beattle: So, when are we getting the boat launch on Williston Lake? Let's get some follow-up on that to the community.
- A: Siobhan Jackson: I agree with you. Last night I committed to getting a status update on all the sites in terms of plans, site acquisitions and we'll get back to the community.
- Q: Dennis Beattle: In my opinion there should be some lower spots, some picnic tables and some camp sites made for people to enjoy the area. I would like to see some recreation up there for these folks.
- A: Dave Conway: It's our understanding that there is a plan for the Dunlevy boat launch. The existing one is not usable because of the erosion so we are presently in conversation related to a new location closer to the dam. So that conversation is ongoing.
- C: Ross Peck: I hate to come to these things because it seems like often what we do is give you fodder to improve your mitigation options. But given we now have a clearer idea of what land would happen to the land in and around the reservoir, there are significant portions of land that BC Hydro has acquired over the last 30-years of this process that now maybe you don't need it all. Down the road, it will be important to consider what will happen to that land from a recreation perspective and a wildlife perspective. We need to think, regardless of whether the dam goes ahead or not, about what are the long-term options are.
- Q: Bob Bach: I just want to take this opportunity, while everyone is here, while you are here, to tell you some of the things that BC Hydro does. Regarding this new boat launch on Williston, the property that BC Hydro wants to use for that boat launch that I had listed for two years. From talking with Hydro representatives about that site, it's about 28 acres, a lady by the name of Ross owns it, she had it listed for \$495,000. A year ago, BC Hydro came and took a viewing of the property with me. The property is perfect, there's no other site on Williston that's privately owned that's better. One BC Hydro reps said what they had done was find a good location, a new location instead of Dunlevy, on Google Maps before they came. It's at the end of 12 Mile Road. They had come up with this property and then they discovered it was listed. After BC Hydro went out and looked with me, they contacted the seller directly, trying to make a deal basically, and pretended they already didn't know it was listed for sale. That's so underhanded, it's collusion, it's against the law, but I can't go after BC Hydro about it. Since then, the woman has decided not to relist and is waiting for a year now for BC Hydro to approach her about buying it. An appraisal was done last fall and the appraiser is from Penticton – because they know most about the area and what's available. It just burns me. I stand to lose a huge commission and it's because of BC Hydro's underhanded activities and it affects me directly. That's on Williston Lake. We have three properties that will be impacted by Site C and have a hard time communicating to BC Hydro about our concerns. I give input to BC Hydro and I get nothing back and I just don't know. The way BC Hydro operates like that. It just floors me. That's a perfect example, about that boat launch. What will happen is that BC Hydro will buy that property from my client at a reduced price and leave me in the cold. That's the kind of thing I'm talking about that BC Hydro has been doing here in this community over and

over again. On another property, they called me about the Powell's house down by our property where we raise fox and lynx, worried that they were going to pay too much for that 11 acres and that beautiful log house on the Peace River with the air strip. You couldn't sell that property for \$470,000, which is what it was listed for, because of the impending threat of Site C. Then, someone from BC Hydro called me and wanted me to write a letter to say it was worth less. I told him that the property would be worth \$1.5 million if it wasn't for Site C. Now I don't know how you can rectify those situations, but hiring an appraiser from Penticton to do the appraisals in this area is pathetic. You need someone who knows the history here in the dealings with BC Hydro.

- C: Dennis Beattle: BC Hydro has a bad name.
- C: Judy Kirk: We hear you, Dennis.
- C: Bev Bach: I think that this whole thing about BC Hydro as a better corporate citizen is really what the people of Hudson's Hope want. We want our integrity back. We move here and you get your retirement all figured out and then you take away our security. Everyone is unsettled because of Site C. With the project is still on the go, what am I supposed to do now? I've got my practice and I lose money when I'm not there so I can be at this meeting. I can't even sell my practice or my building if it could be down in the water.
- C: Judy Kirk: Thank you very much for your comments.

Dave Conway wrapped up the meeting and encouraged participants to complete the feedback form and asked participants to encourage friends and others to participate.

The record notes that the meeting ended at 3:00 p.m.

MEETING DETAILS	BC Hydro Site C Clean Energy Project
	Project Definition Consultation, Spring 2012
LOCAL GOVERNMENT	Peace River Regional District (PRRD) Area Directors – Local Government Meeting
MEETING	April 19, 2012, 4:30 p.m. – 6:30 p.m.
	Lakeview Inn and Suites
	10103 98 <sup>th</sup> Avenue
	Fort St. John, B.C.

PURPOSE	Notes from a local government meeting for the BC Hydro Site C Clean Energy Project held with local government representatives and representatives of the Site C Project on April 19, 2012 at the Lakeview Inn and Suites, Fort St. John, B.C.
FACILITATOR	Judy Kirk, Kirk & Co. Consulting Ltd.
LOCAL GOVERNMENT REPRESENTATIVES	<ul> <li>Area Directors, Peace River Regional District:</li> <li>Director Karen Goodings, Electoral Area B</li> <li>Director Arthur Hadland, Electoral Area C</li> <li>Director Wayne Hiebert, Electoral Area D</li> <li>Director Jerrilyn Schembri, Electoral Area E</li> </ul>
SITE C PROJECT TEAM ATTENDEES	Dave Conway, BC Hydro Siobhan Jackson, BC Hydro Andrew Watson, BC Hydro Duane Anderson, BC Hydro Judith Reynier, BC Hydro Karen Schroder, Kirk & Co. Consulting Ltd., Meeting Recorder Nancy Spooner, Kirk & Co. Consulting Ltd., Observer

### **KEY THEMES**

### **Expression of Opposition**

- Local government participants said they were opposed to the damming of the Peace River.
- The Peace River Regional District Directors at the meeting strongly opposed the Site C project.

### **Energy Planning**

- Local government participants were interested in BC Hydro's energy planning process and which energy options were being looked at. They asked whether a cost-benefit analysis was being done for energy options and who would be responsible for completing that analysis.
- Local government participants expressed that the *Clean Energy Act* needs to be reviewed to include a natural gas strategy.
- Directors said they think B.C. should be looking at meeting the electricity needs of the province through natural gas instead of Site C.

### **Environment Assessment**

- Directors expressed a lack of confidence in the environmental assessment process.
- Participants expressed concern that BC Hydro had acquired land (85th Avenue Industrial Lands) prior to attaining environmental certification to proceed with the project.

### **Community Benefits**

• Directors discussed the need for community and legacy benefits from the project and the need to have a Peace Basin Trust to ensure more significant benefits flow to the region.

The record notes that the meeting was called to order at 4:30 p.m.

### **DISCUSSION**

(Abbreviations will be used and mean – Q: Question, A: Answer, C: Comment)

### 1. Welcome and Introductions – Judy Kirk

Judy Kirk welcomed participants to the local government meeting, explained the format of the meeting and introduced the Discussion Guide and Feedback Form. Judy informed participants that the meeting was being recorded for accuracy. Roundtable introductions followed.

### 2. Review of Discussion Guide and Questions and Answers – All

Dave Conway reviewed the introduction to the Discussion Guide, including ways to participate in the consultation and the schedule of open houses and the list of information items and consultation topics.

- C: Karen Goodings: I don't know if I know how to start, except to say while we appreciate everything that you have done to try and bring this consultation forward, I am still not sure that the message is getting through. The message is that we really do object to the river being dammed, period. I think that needs to be stated. I will remain as objective as I can and I will go through the process and go along with whatever the outcome is. But I want to be prepared for what I consider to be the worst case scenario which is the building of the dam. The loss of agricultural land is huge. The loss of the valley is huge and I am very concerned about what happens to land on either side of the river, for the fish, for everything that pertains to our river.
- C: Wayne Hiebert: I feel that BC Hydro is putting everything in one basket on one river, one location, one type of energy production. What if W.A.C. Bennett had collapsed in December; where would BC Hydro be at this point in time? It would be catastrophic loss throughout the whole province. I think BC Hydro is looking at the Peace River and all they can see is a nice place to build a power supply for BC. I was fortunate to see the Peace Valley before the river was dammed. We are losing a chunk of the province we are losing. What happens when there's another sink hole at W.A.C. Bennett dam and nothing holds it back? What happens if there is another Attachie slide? And it will happen. As one old-timer said, the hills in the Peace region are in a hurry to get to the bottom. I don't feel that the people high up at BC Hydro are listening to a thing and neither is the Ministry of Environment. If I have to bring up the HST and the lesson it should have though the province, I will. So many people voted on that alone.

Fort St. John, B.C.

- C: Jerrilyn Schembri: As much as I appreciate everything you guys have done and you are doing your due diligence, you have hired good people but as much I've seen working with disaster management, you can't predict what will happen. You can build 9-foot berms, 12-foot berms, you can build them out of cement, you can build them out of gold, but Mother Nature looks at us and laughs. Look at the Titanic you guys are going to build an 'unsinkable ship' here. It might last 3 days, it might last 30 years but down the road something is going to happen.
- C: Wayne Hiebert: I feel like we're on the Titanic and we're the ones who are going to sink. We are going to lose our farm land and an excellent river for boating. You can say what you want about the future recreation on the river but no one believes you.
- C: Jerrilyn Schembri: Have you seen the social media piece on oil sands in Alberta? It's on You Tube. There all these pictures of the beautiful Alberta landscape and then they start flashing pictures of oil sands and ducks covered in oil and that one thing has had such an impact through-out the world. It has had more viewers than any of their positive ads. On the topic of the Titanic, I have a picture in my head of the WAC Bennett dam and someone standing there arms outstretched, music in the background and then a few kilometres away, Hudson's Hope crumbling into the river. There are too many effects and the people outside of the area don't see that or care: these people sitting around this table, and some of those who will be consulting with during this period, are the only voices who are trying to make a difference. When I ran for the Conservatives and was asked about Site C, I said I didn't want to voice an opinion until after the environmental assessment. I am watching the process going along and I don't want to see two years wasted with us saying 'we don't like it' and the First Nations saying 'we don't like it' and people of the area saying 'we don't like it' and BC Hydro plowing through like a giant saying it doesn't matter.
- C: Arthur Hadland: I will re-iterate one thing that keeps coming back. There is a resistance to change and the name BC Hydro is part of that. I use to be part of PWAC and I hoped there was some good will there in terms of interface, although today I doubt that. The one thing I recall I was proponent of is that BC Hydro needs to change its name to BC Energy and needs to look at a range of options for energy production. We could look at a timeframe of 100 years, the life of the proposed dam, but we should be looking way beyond 100 years. We see the changes in technology. There are many options for generating power. In theory the best thing you can is to give people independence. When you have a corporate structure, or authority, however you want to define BC Hydro, there is this push to control or direct. We need to get outside the box. I know you are mandated by the so-called 'Clean Energy Act', I will call it so-called because isn't clean, but somehow we have to start looking at all the long-term options. I see the energy policy shifting - it went from export to California, to powering 450,000 homes, then to Horn River but that was linked to tar sands so that was unpalatable, so now LNG is the policy of the day. What I'd like to see is a strategy for B.C. that is meaningful. The need to look at all the options – solar, we all could be collecting solar power, and we are missing the chance for natural gas. But why couldn't we develop those strategies for British Columbia? Are we looking after British Columbia here? I don't see that Site C is looking after B.C. I think that we have to be broader in perspective and I don't see that in

this process. This is a very restrictive terms of reference you've been given, we need to look at where we're going to go not just for 100 years but for 1,000 years. And we're not doing that, not by flooding the river valley and ruining the valley. That is wrong.

- Q: Judy Kirk: Arthur, have you had a chance to look at the Environmental Impact Statement Guidelines that are posted online? This is not in response to what you have said.
- Q: Arthur Hadland: Does it cover off the cost-benefit analysis?
- A: Andrew Watson: Yes, it does.
- C: Arthur Hadland: Because that wasn't being looked at before, the options?
- A: Andrew Watson: Well, BC Hydro does engage in Integrated Resource Planning which looks at energy options. You have probably participated in that process it the past. That's the vehicle by which Site C is compared to alternates and we look at the cost of Site C within that. The EISG will point to that process.
- C: Arthur Hadland: My response to that, and I'm not totally informed on this, is that the Clean Energy Act precludes natural gas.
- C: Judy Kirk: I understand your point, and you're right the Clean Energy Act does rule out natural gas.
- Q: Arthur Hadland: So will that be included?
- C: Siobhan Jackson: We have had an energy plan in 2004 and 2007 which included Site C and then the Clean Energy Act was brought in in 2010, so it wasn't the turning point or the reason that Site C was looked at.
- C: Arthur Hadland: I think I participated in 2004 and coal electricity generation was pretty close to the top. But that's been thrown out.
- C: Andrew Watson: Yes, now that's changed so it has to be sequestered CO<sub>2</sub>.
- C: Dave Conway: We awarded an energy purchase agreement to IPP, Mustake Lake, which was later retracted after the Clean Energy Act came in because of the initiative to move to sequester CO<sub>2</sub>.
- C: Andrew Watson: BC Hydro is bound by legislation about what alternatives can be looked at for example, nuclear is off the table. But I believe, the joint panel review, as that represents the federal government as well, their mandate is wider, so I think your comments should be directed to them as well.
- C: Dave Conway: Even in today's policy there is room for some gas but not much.
- C: Karen Goodings: Something like 93% of it must be clean, or what they consider to be clean.
- Q: Karen Goodings: If a cost-benefit analysis must be done, according to the environmental assessment guidelines, who will do it?
- A: Siobhan Jackson: BC Hydro does it as part of IRP process and then it is presented to the agencies.
- C: *Karen Goodings:* And BC Hydro does that, it is guided by the *Clean Energy Act*. So again I am going to say that the problem still is that gas isn't considered clean. And yet we are up here sucking it out from under people's feet like crazy and shipping it out and taking Site C to power it. The whole thing is just bizarre from our viewpoint. We have a natural resource that the province is keen on getting, why is it okay to take it and ship it out but not okay to use that gas for power?
- C: Siobhan Jackson: BC Hydro's electricity production is part of an integrated grid. So a hydro project will displace other resources due to the nature of the electricity that it is firm, reliable and

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flexible. So that is not a marginal resource, so this tends to displace other the marginal resources that come on when the system is at peak demand. It is a system in B.C. is part of the western North American grid system, so hydro resources will displace marginal resources, like coal and gas, which are inefficient to run.

- Q: Karen Goodings: Why inefficient?
- A: Siobhan Jackson: Those are the marginal resources that tend to be more expensive and less flexible to run so it's the quality of power. If a hydro project is running it displaces the less usable system; so we would run hydro before we would run Burrard Thermal. If you just look at B.C. Burrard Thermal is our marginal resource, that's the one that we only put on when we need it when demand is high. If a hydro project isn't spilling, then they are running optimally so we are getting all the electricity out of a hydro system first and then other resources come on as needed.
- C: Dave Conway: The term marginal resource doesn't mean the resource is marginal, it just means it's a less efficient resource.
- C: Judy Kirk: The energy planning consultation will be here in Fort St. John in June to the degree that you would want to participate and have your say in energy planning.
- C: Andrew Watson: And the way alternate are assessed with regard to Site C will be looked at as part of the regulator's process.
- Q: Karen Goodings: So the energy planning workshops will be in June? What part of June?
- A: Judy Kirk: I think it is early June but I'll make sure we get that information to you.
- C: Wayne Hiebert: This flexibility of resources, I don't believe what I'm hearing. When we produced power through natural gas we had less power outages than we do know. The benefits of producing electricity with gas... producing hot water, having the steam...going way back, every gas plant in this country should have a greenhouse attached to it. But it is not the will of BC Hydro do to that. I go back to the first meeting with BC Hydro and I said to the engineer at the table how much carbon dioxide are you not going suck up out of the atmosphere by cutting down all of the trees at these sites.
- C: Andrew Watson: We have done a report on that, on change on carbon cycle, and it is on our website. It's been reviewed by the Pembina Institute and others.
- C: Siobhan Jackson: That change in emissions is not insignificant. But compared to other forms of electricity generation it is comparable. The reservoir will return to its current state the environment there is not a carbon sink, the area is a net emitter of carbon dioxide of about 5,000 tonnes a year.
- Q: Judy Kirk: As the 85<sup>th</sup> Avenue Industrial Lands are in the Peace River Regional District, do you want to spend some time on that topic?
- C: Arthur Hadland: You are doing your due diligence locating the best source for fill material, but what bothers me about this is acquisition of the properties before the completion of environment assessment process. BC Hydro does have the power of expropriation, our family knows that, and I think it was presumptive and sends the signal that the project is proceeding. You need to do the planning so that if this project does get approval you end up with the space that will be utilized properly. My request would be that there is a cease and desist on any property acquisitions until

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after environmental certification. Right now it looks like there are no checks and balances, it's just Stage 4 blasting right ahead.

- C: Karen Goodings: Ditto on those comments.
- C: Siobhan Jackson: The environment assessment process requires very specific information from BC Hydro. It requires us to provide with some certainty areas that will be needed to for the project, especially where there is the potential for impacts. If we didn't own those areas it would have been more difficult to define those areas and do the assessment. Obviously, if the project doesn't go ahead, those properties can be sold by BC Hydro. From our point of view, we thought it was important to provide clarity around a major project footprint area.
- C: Judy Kirk: The map on page 33 outlines post construction and talks about the potential for a joint planning process with you, the PRRD, and potentially with Fort St. John. That is what BC Hydro is thinking but there is currently no plan in place for what that might look like, in other words we really want to hear from you about what you would like to see post-construction if the project is approved.
- C: Siobhan Jackson: We are open to hear whatever you would like to see.
- Q: Karen Goodings: But you have purchased the land?
- A: Dave Conway: Yes, we have.
- C: Karen Goodings: That sends a very strong signal. There could have been an agreement with the landowner to say, we are very interested in this area and down the road subject to the project being approved, we could like to purchase. I am really struggling with this attitude of it's a done deal and that's how people are viewing it. I think it's sad; we are spending how many weeks and months and dollars going through an environmental assessment process that people consider to be a done deal. Lots of people feel that way, even those who really don't want to see it happen.
- C: Wayne Hiebert: I can understand where Karen is coming from, I have sat in on meetings and it feels like a done deal and if there is something that is a problem, the answer is there is always a way to mitigate it. I don't like the word mitigate. I think BCEAO has only turned ever turned down one project and that was on some technicality. Everything goes ahead; all they do is make a little tweak here and there. But once you're in the process, it's a done deal. All you can do is get the best out of the project that you can, but sometimes that best isn't good enough. It's not a confidence building process to go through. Now, maybe with the federal involvement, there might be a bit of a different take on it. There was that mine in B.C. that was stopped because of the feds. But now they are moving to streamline the process and put more power in the hands of the province although I don't think Site C is impacted by that. You people are doing a good job of doing what you have to do but it seems like there is no real confidence in the process.
- C: Arthur Hadland: Looking at BC as an entity, we are proud of the fact that we have the lowest CO<sub>2</sub> emissions from our energy production but there is so much focus on that. B.C. is blessed to have so many river systems, but of course, we are not using the major system, the Fraser River system. There's probably more energy potential there than all the river systems combined. But you won't go there because of the salmon and that's a vital part of our communities. We are chipping away at some of the foundation of civilizations and I think a river valley is paramount in all ancient civilizations. The civilizations that have failed didn't look after the rivers and the farmland. And

here we are, we want to plug one up. It would be wonderful if we could have some changes to the *Clean Energy Act*. It was developed with one goal in mind and maybe it's up to us as local government to be asking for changes to that Act.

- C: Karen Goodings: We have already done that and we haven't received an answer.
- Q: Arthur Hadland: Are you aware of that, that we send a letter from the Board?
- A: Dave Conway: Yes, we are aware of that. We have a copy of the letter.
- Q: Duane Anderson: Was that letter just about the gas issue?
- A: Karen Goodings: It was focused on gas but also that the whole Act needs to be relooked at. Just what I mentioned before, that it's okay to suck it out from under us and send it away but not use it because it doesn't fit the definition of 'clean'. If it's not clean, then leave it there. It all boils down to the fact that the province wants the money. I honestly do not see how BC Hydro can mitigate the loss of a river; there is just no way to do.
- C: Jerrilyn Schembri: I've lived in Tumbler Ridge for 23 years now. Realistically, living in Tumbler Ridge, the impact to me is fairly minimal. But listening to these people, who have spent their entire lives here and this is their home. I am passionate about this but it is not the same as for people whose home this is. A lot of people came into this area and are fairly transient and it doesn't have the same impact as it does to those who have lived here their whole lives.
- C: Karen Goodings: What more is there to add?
- C: Arthur Hadland: I'll add another thing, looking at the broader picture again, I think the Peace region is the motor of our provincially economy right now. We provide one-third of the energy, and the natural gas is an economic motor and I guess my reaction is we have done our fair share, but what do we have to show for it? There hasn't been much a legacy. I look at Hudson's Hope and I don't see that there was much benefit or much left behind. There is the Columbia River Basin Trust and I think we need that for the Peace. We need better access to the south, a 4-lane highway, but that isn't going to happen when there's a pipeline and hydro lines in place. The real problem with B.C. is that the capital is in Victoria, I think if it were in Prince George it was be a different story. It is out of sight, out of mind. That's one of the reasons you see resistance in this process.
- C: Dave Conway: I know the PRRD did some initial work around potential legacy benefits and what that might look like.
- C: Karen Goodings: We did try several years ago to get interest from local politicians on creating a legacy for what was already existing. They were quite hesitant but that's because they were in middle of fair share negotiations. But it certainly is still on our list, we need to do this and we are going to have to move ahead with it.
- C: Dave Conway: So it hasn't been advanced any further, so do you think appetite would be there now?
- C: *Karen Goodings:* Well, we know it has to be done. It's not the case of if there is an appetite; it just has to be done.
- C: Duane Anderson: I was just going to say something about what Arthur said. For me personally, the project is not going to go or not go just based on me. Everyone has a role to play in whether it does

or doesn't go ahead. It is a commonly held belief that Hudson's Hope didn't get what they could have due to how the community and BC Hydro interacted. On the path we are on, regardless of whether the project proceeds or doesn't, there is still work that everyone at this table needs to get done to move things ahead.

- C: *Karen Goodings:* And we are going to do that. If I was going to make another comment it would be that we could have save some time and number of meetings if we got everyone in the same room but that didn't seem to be the flavour of the day.
- C: Judy Kirk: Honestly, if we combine everything, people tell us that they want separate meetings. That's one of the reasons we had a RLGC meeting in early April and extended the invite to all councilors.
- C: Karen Goodings: I am trying to think broadly and represent the region. I like to hear what other people have to say.
- C: Dave Conway: We have heard what you have said in terms of joint meetings and will try to continue to combine meetings and find a balance.
- C: Siobhan Jackson: We met about a month ago with the CAOs from PRRD, Fort St. John, Hudson's Hope and Taylor and they had an interesting conversation among themselves about this topic of joint and separate meetings. We sat back and listened and it seemed like they wanted some time together and the chance to meet separately. So we are trying to find that balance.
- C: Wayne Hiebert: Thank you very much. This gave me a chance to vent and I feel a bit better.
- C: Siobhan Jackson: To Duane's comments, when we do bring topics like this forward, and there's obviously specific things in here, as opposed to the bigger picture discussion we've had, we don't want to lose the opportunity to get your comments these topics. As a planning document, this and these meetings provide us with direction and a chance to be course corrected if that is needed.
- C: Andrew Watson: On the engineering side, a good proportion of things we are working, like the berm at Hudson's Hope and shoreline studies, highway realignment and access roads, are things the public are interested in and we have hired the best people and are working to at least get as much information as we can on the table.
- C: Karen Goodings: We do realize that and that the best people are working on this.
- C: Andrew Watson: If there are other things you think we can do in terms of assessing this project, something that we should be focusing on for the environmental assessment, we would want to know.
- Q: Judy Kirk: Will you, the PRRD, be providing a written submission on some of these topics, or filling out the Feedback Form or in some way providing written comment as part of this consultation? I would really encourage that.
- A: Karen Goodings: I'll have to look at the questions again. What I don't want to do is answer questions that are posed in such a manner that they are presumptive as to the answer.
- C: Judy Kirk: If you feel the Feedback Form isn't appropriate for what the PRRD wants to say, then please provide a written submission in whatever format you would like.

- C: Karen Goodings: At the board meetings, we have avoided getting into discussions on support. As a regional director I have people you are against and not against the project. So as I regional director, I respond by saying I support the environmental assessment process, let's go through the process and see where it gets us, and be prepared for any outcome.
- Q: Arthur Hadland: You are familiar with the old resolution of the Board?
- A: Dave Conway: Yes, we are.
- C: Arthur Hadland: The only thing they'll pick out of the old resolution, is that all of it was predicated on the understanding that any decisions that were made were subject to BCUC and when you look at this Act, that doesn't apply.
- C: Judy Kirk: Anything else that we should go through?
- C: Wayne Hiebert: You can have all the best and most experienced people, and I'm sure you do. But sometimes it pays to listen to the people who live here and live on the land.
- C: Jerrilyn Schembri: Listen to what Merlin said about trees the other day he has how many years of experience. To me that was extremely valuable information for BC Hydro to have. Those are the things that I'm talking about when I say that not everything can be predicted.
- C: Dave Conway: That is one of the main reasons we are out talking to people, to gather input and feedback. One of the most obvious examples is Highway 29 realignment at Lynx Creek. We were out there in 2008 and the alignment that uses the Millar Road right-of-way which was suggested by property owners.
- C: Andrew Watson: There were a number of years where we didn't pay enough attention to what was going on the Williston Lake. But out of Site C we have been able to start looking at things that need to be looked at. Our organization is pulled in different directions the operation side is being instructed by BCUC to keep rates down and not to do anything that isn't in the law and we are out there talking to people and hearing what should and needs to be done so maybe we can have some push back.
- Q: Arthur Hadland: I was interested in having a 'post-mortem' on the safeline that was done on the one end of the reservoir, to see how the predictability was at that time. Has that been done?
- A: Andrew Watson: We have looked at the history of what has happened at Dunlevy. The old safeline was just long straight lines and they flagged that the whole area as being subject to large erosion. It wasn't done with detailed studies, it was just the whole bank flagged. We have looked at the process and tried to technically understand the materials, so we haven't focused too much on comparing that. We sent you the old maps but what I'm hearing is that you want to see an assessment of what parts have gone beyond the predictions?
- C: Arthur Hadland: I guess I would task you with measuring, you know the lines were drawn, right or wrong, the lines were the best at the time would like to see where have they been as predicted and where have they failed. There seems to be an unwillingness to do that.
- C: Siobhan Jackson: I think what I hear Andrew saying is that the methodology was less intensive than it is now, so it is an apples and oranges comparison. It is the same on the environmental side, very

few environmental studies were done, so to compare what we know today doesn't work. But what we are doing is going out there and learning from it and apply the lessons. We are also looking at other systems, because sometimes the best lessons aren't some Williston because is so different from Site C.

- C: Judy Kirk: Arthur, correct me if I'm wrong but I think you would like to know where the safeline prediction was and where it is currently different from where it was predicted. Second, you would like to see the relationship between the current preliminary impact lines and where the historic safeline was drawn. Forget what conclusions could be drawn those are the two things you are interested in seeing.
- C: Arthur Hadland: Well, I think it has some application for today. The Thurber report (Site C Reservoir Shoreline Stability Assessment, Thurber Consultants, April 1978) was very clear on defining the safe line and the take line. I understand that the terms of reference have been changed but at the same time I don't know why you would avoid that.
- C: Andrew Watson: Okay, those are comments we'll take back.
- C: Duane Anderson: For the erosion modeling for Site C, we did apply look at the erosion that has taken place at Dunlevy and pulled that into the Site C model?
- C: Andrew Watson: About 15% of the reservoir slopes are made of silt and clay and in are erosion modeling for those areas we are using very conservative assumptions because we are taking the response from Williston. It's a very conservative case history; so we are learning from that.
- C: *Jerrilyn Schembri*: 30 years ago they will look at what you're doing and think it is they are so much further ahead.
- Q: Arthur Hadland: The lands you acquired at 85<sup>th</sup> Avenue is zoned as light industrial and the allowable uses?
- A: Karen Goodings: The allowable uses do include mining.
- C: Arthur Hadland: Okay, I wasn't sure if that wouldn't be considered heavy use.
- C: Andrew Watson: The transport route will be on agriculture land so that will need to go through the Agricultural Land Commission.
- Q: Arthur Hadland: We have recently completed our OCP and have you looked at that with the ramifications of your project?
- A: Siobhan Jackson: Yes, we have looked at it. We take the OCP in as one of the considerations when looking at this aspect of the project. Other than the 85<sup>th</sup> Avenue site, the main interactions will be with roads, and if we do pursue a connection with either the PRRD or the City of Fort St. John, for sewer and water.
- Q: Duane Anderson: Is there something you were thinking of, Arthur?
- A: Arthur Hadland: I'm not sure you have read it based on your comments. I will leave you to read it and then we can discuss.
- C: Dave Conway: Did some zoning change? Okay, we will review.
- C: Karen Goodings: I assume that part of this whole thing will be an application to the Agricultural Land Commission for lands that are going to be flooded, which are in the ALC?
- C: Siobhan Jackson: We are not sure how the process will go. What the BCUC recommended previously, was that assessment of effects on agriculture be done through that process and if a

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LOCAL GOVERNMENT	Peace River Regional District (PRRD) Area Directors – Local Government Meeting
MEETING	April 19, 2012, 4:30 p.m. – 6:30 p.m.
	Lakeview Inn and Suites
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decision was made to grant a certificate then the Agricultural Land Reserve should be addressed by Cabinet directly.

- Q: Judy Kirk: But that was BCUC in the 1980s?
- C: Karen Goodings: We don't even have that now; we don't have the BCUC involved any more.
- C: Siobhan Jackson: But the principle, not the organization, the environmental assessment would thoroughly examine the effects of agriculture, including proposing mitigation. The principle that they brought forward was that impact would be assessed as part of the overall project assessment. They didn't advise that there should be a subsequent and separate examination of the effects on agriculture.
- C: Judy Kirk: Just to your comment on cabinet, I think since then, and we should double-check this, that Cabinet as removed itself with respect to decisions on agriculture and it is left with the ALC. We will check on that. Any other questions?
- C: Dave Conway: Thank you for taking the time to meet with us today. I know it's a long day when you have a Board meeting and then a finance meeting. We do value your comments and your input. We would encourage the Board to provide a submission as part of the consultation.
- Q: Karen Goodings: Are you talking the Board as a whole? Or as individual Directors?
- A: Dave Conway: That's a good point. The Board as a whole is one option, but you are also welcome to submit as individual Directors, or as an individual. Whatever you think is appropriate, we would welcome any input.

Dave Conway wrapped up the meeting and encouraged participants to complete the feedback form and to encourage friends and others to participate.

The record notes that the meeting ended at 5:40 p.m.

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STAKEHOLDER	Fort St. John – Stakeholder Meeting
MEETING	April 20, 2012, 9:00 a.m. – 11:00 a.m.
	Quality Inn Northern Grand – Grand 1
	9830 100 <sup>th</sup> Avenue
	Fort St. John, B.C.

PURPOSE	Notes from a multi-stakeholder meeting for the BC Hydro Site C Clean Energy Project held with stakeholders and representatives of the Site C Project on April 20, 2012 at Quality Inn Northern Grand, Fort St. John, B.C.
FACILITATOR	Nancy Spooner, Kirk & Co. Consulting Ltd.
ATTENDEES	Patricia Backlund, Synergy Environmental Garry Beamish, Talisman Energy Inc. Garry Brimacombe Philip Dyck, Canadian Helicopters Scott Ebert, B.C. Peace Country River Rats M. Giles, MYCA Sand & Gravel Dan Glover, Talisman Energy Jim Gordon, J. Gordon Services Don Irwin, Ray Northern Warren Haddow, J. Gordon Services Joy Howe Jason Linley, Big Bam Ski Hill Bob Johnson, Big Bam Ski Club Jim Little, Mackeno Ventures and N.P. Rod & Gun Club Mark Meiers Paul Perkins, Talisman Energy Inc. Neal Skauge Rick Walters, REMAX
SITE C PROJECT TEAM ATTENDEES	Dave Conway, BC Hydro Siobhan Jackson, BC Hydro Dave Hunter, BC Hydro Andrew Watson, BC Hydro Mike Porter, Site C Project Team Emilie O'Genski, Kirk & Co. Consulting Ltd., Meeting Recorder

### **KEY THEMES**

### **Alternatives**

• Participants questioned forecasted energy loads and wondered why natural gas is not being used more, particularly in a cogeneration capacity. Some participants felt that B.C.'s electricity needs could be met without Site C.

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### Workforce

- Some participants wondered where the project will find workers when local businesses are already struggling to find employees.
- Participants were concerned about the likelihood that workers currently working for local businesses would want to work on the Site C project, which, in their view, would compromise small businesses in the region.

### **Outdoor Recreation**

• Some participants expressed concerns about the location and size of the proposed boat access sites. They feel that there are too many obstacles to get to the site and would like BC Hydro to take a closer look at more accessible sites.

The record notes that the meeting was called to order at 9 a.m.

**DISCUSSION** 

(Abbreviations will be used and mean – Q: Question, A: Answer, C: Comment)

### 1. Welcome and Introductions – Nancy Spooner

Nancy Spooner welcomed participants to the multi-stakeholder meeting, explained the format of the meeting and introduced the Discussion Guide and Feedback Form. Nancy informed participants that the meeting was being recorded for accuracy. Roundtable introductions followed.

### 2. Review of Consultation Discussion Guide and Questions and Answers - All

Dave Conway reviewed the introduction to the Discussion Guide, including ways to participate in the consultation and the schedule of open houses and the list of information items and consultation topics.

Dave Conway reviewed BC Hydro's energy planning, design of Site C and key project benefits.

- C: Jim Little: Over the last year or two, we've heard that Site C is needed for domestic load. The latest news is that we need up to two or three Site Cs for the natural gas up at Kitimat and the expansion of the Alaska Highway. The Fort Nelson news on April 4<sup>th</sup> says how Fort Nelson can power itself and there are two options that do not include Site C. I don't think you have your act together. Fort Nelson is going to look after their own CO<sub>2</sub> sequestering. There is an abundance of natural gas in the province. We were told by the natural gas industry that they can supply electricity via natural gas and meet the emission guidelines. You need to look at that in terms of the load forecast.
- A: Dave Conway: Thanks Jim. Just a couple of things on this forecast; it is based on a million person increase over the next 20 years and it's also driven by gas and mining industries. It is a forecast, but from 1991 2011, a twenty-year period, our forecast was pretty close. There has been a lot of information out there about the project and the project gets used as a yardstick. We know that Site C would have 1,100 megawatts of capacity and people use that as a comparison to load that might

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be coming on. As a result, if you look at LNG that is being discussed, those projects would come online much sooner than Site C, which is designed to be online in 2021. There would be a challenge from that perspective. We will be doing our Integrated Resource Planning (IRP), our long range planning, and looking at those sorts of things. There is an opportunity for you to take part and provide input in June. There is some room in our policy framework, the *Clean Energy Act* which we have to work within, for some gas. But 93% of our load must be clean.

- C: Jim Little: Fort Nelson can do the gas and it's clean and Calgary is putting in a similar natural gas generator and they are meeting whatever policy terms they have.
- C: Mark Meirs: They are putting in three, Jim, in Alberta.
- Q: Mark Meirs: A minute ago you said you don't have much room for natural gas? What does clean mean?
- A: Dave Conway: The present generation is 93% clean and renewable. Because of the project size it isn't considered green but it means clean and renewable. Siobhan can go into more detail about that.
- C: Siobhan Jackson: The definition is focused on the GHG emissions profile. The emissions are on par with wind and micro-hydro. We classify emissions in association with change in the carbon cycle and construction activities combined with the operating life. When we look at the emissions we Site C would be about on par with other renewable energy resources. You get an order of magnitude increase when you go to gas and another order of magnitude when increase for coal.
- C: Mark Meirs: I don't understand what's clean about flooding 80 kilometres of a river valley.
- Q: Jim Little: In regards to order of magnitude, you assume that the CO<sub>2</sub> is not taken out of natural gas?
- A: Siobhan Jackson: I'm not aware of any full sequestration projects. The technologies that we've seen are perhaps are changing but I haven't heard of them. Typically there are offset projects which aren't the same as sequestration projects.
- Q: Mark Meirs: Is BC Hydro involved with co-generation projects?
- A: Dave Conway: Yes, there is some co-gen in Prince George and Kamloops. There aren't any in Fort Nelson as it's a gas generating station there. There is an energy purchase agreement for a co-gen project in Mackenzie at the moment.
- Q: Mark Meirs: They advertise the one in Fort Nelson and in Taylor as co-gen.
- A: Siobhan Jackson: Yes, I think Spectra (Taylor) is producing electricity for the grid.
- Q: Mark Meirs: Natural gas fired to produce electricity. That's co-gen and that's what we have in Taylor. You've already set a precedent. You've mentioned several co-gen plants that BC Hydro is involved in. Why don't we make more?
- A: Dave Conway: There is some room to add more gas generation to the grid, but for us there is a very small percentage that we can add.
- C: Andrew Watson: We have to follow the provincial legislation and we can't change it.

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- Q: Dan Glover: I want to clarify, the difference between natural gas generation and co-gen. Natural gas you build a facility to make power and co-gen you use waste energy to generate power. You put a module there next to a processing facility to capture that power.
- C: Jim Little: The same project can do both then?
- C: Dan Glover: I guess so, if it's efficient enough.
- Q: Bob Johnson: I wanted to ask about the cost. You have Site C producing electricity at a cost of \$87-95 per megawatt hour. How does that compare to the cost of power from the current dam?
- A: Dave Conway: It's significantly higher. W.A.C. Bennett's cost of generating works out to approximately 1.5 cents a kilowatt hour. When you add other costs in, transmission and distribution, it works out to 2.5 cents a kilowatt hour or \$25 a megawatt. When we put out our last call for clean energy, it was about \$125 per megawatt. What ends up happening is they are blended so as a result the cost is about 8 cents a kilowatt hour. We have about the fourth lowest rates in Canada.
- C: Andrew Watson: And the reason that we and the other utilities have low rates is because they've spent large capital building facilities in the 1960s and 1970s so we can have low rates.
- C: Mark Meirs: It seems that there is a discrepancy as to what co-gen is. In Taylor, they have a gas turbine. On the front of gas turbine, there is a generator, and off the back of the turbine the exhaust creates steam. The steam turns another turbine so you are producing power both ways and it's very efficient. The excess steam is also used in the plant process.
- C: Dave Conway: Right, and that is what Stan was talking about earlier.

Andrew Watson provided information regarding transmission update.

Siobhan Jackson provided information on planning underway regarding worker accommodation and mentioned that worker accommodation will be a consultation topic in the fall 2012 consultation.

- C: Jason Linley: You say that you will try to employ locals so you don't have a demand for housing. The problem is we can't find people to work now. I'm looking for 15 people to work and I'm just a small guy. Everywhere I go they are looking for people to work in the oil patch. How do you think this is not going to have an impact to Fort St. John?
- A: Siobhan Jackson: I said that we anticipate that some locals will want to work on the project. The whole premise of worker accommodation is that we will have to house an out of town workforce on a temporary basis.
- C: Mark Meirs: Jason is 100% right. Fort McMurray had the same problem. They imported Chinese workers by the hundreds. They would come back and forth to work every two or three weeks. Where did you plan on getting your people from?
- A: Siobhan Jackson: The project will be built by contractors and they will be accessing their pools of labour. They'll be primarily responsible for filling the workforce. I can't say where those people will come from.
- Q: Don Irwin: Do you have an idea of the size of the camps?

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- A: Siobhan Jackson: We don't have the total size yet; the peak workforce is about 1700 but I don't anticipate everyone will need to be in camps. We are planning for flexibility to be able to ramp up if required.
- Q: Don Irwin: At this point you don't know if the camps will be equal in size.
- A: Siobhan Jackson: We are looking at where the work will be in relation to north and south banks. We are planning two camps because if we have 500 people on the wrong side, moving them to the work site for shift will be difficult. We want an efficient and safe movement of workers. We will be providing a shuttle so workers could move easily into town.
- Q: Jason Linley: So you say you're relying on the contractors to bring in all the skilled labor. What about all the little towns surrounding the project. When you offer skilled labour jobs like this, all my good guys are going to go where the most work is, and so my business will shut down. I'm wondering what you're going to do about that.
- A: Siobhan Jackson: What BC Hydro has done for other large projects through-out the province, is facilitate business sessions between the large contractors and the local businesses. The large contractors will look for locally placed equipment and resources. We hold business sessions to help make those connections.
- Q: Garry Brimacombe: Is there going to be a bridge across the river to move employees?
- A: Andrew Watson: Yes, there will be a temporary construction bridge so we can bring workers across. That will become part of the dam when construction is complete.

Andrew Watson provided an overview of the preliminary impact lines and land use around the proposed reservoir. Mike Porter reviewed the four impact lines and proposed shoreline protection at Hudson's Hope.

- Q: Bob Johnson: Do you have any information about the water levels below the dam? Big Bam ski hill is located 3 kilometres below the Taylor Bridge and I see the river rise quite a bit at certain times. How much maximum increase will we see?
- A: Andrew Watson: We'll be operating within our current water license on the Peace. The point of control will change, will we be controlling it at Site C. So as you get closer to the Site C generating station that's where you will notice the water will fluctuate the most.
- A: Siobhan Jackson: At the highest high, it will potentially be a few centimeters higher than the current high.
- Q: Bob Johnson: What's the current lowest low? We want to know if we need to relocate our ski hill.
- A: Siobhan Jackson: I'm writing down your comments and we'll talk to Taylor and yourselves. I'll follow up with you after so we can get our hydrologist to take a look at your area.
- Q: Bob Johnson: We aren't actually in Taylor; we are in the Peace River Regional District.
- A: Siobhan Jackson: The information that we bring forward for Taylor will actually apply to you as well, so I'll follow up.
- Q: Jim Little: I'm looking at page 13. There never was a Glacial Lake Matthews by the way. I have Matthews report here. There was a Glacial Lake Peace with seven different phases. I expect that BC Hydro has this report. Secondly, I take it that page 12 is a conceptual drawing and not what you

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expect the whole reservoir to look like in the end. Right now, there is a whole bunch of stuff outside of the stability line and that should be inside the stability line. The stability line as it is currently drawn is a bit of a joke. The reason I say that is because when Williston Lake was formed, I worked for the government and I told BC Hydro they needed to put down some factual lines and they refused to do it. The shoreline at Williston Lake is falling into the lake. We need actual lines and when you talk about when you can't do certain things within certain zones, you might as well buy everything in that stability zone. The value of that land becomes useless to almost everything but grazing. Being an appraiser, I can tell you wouldn't get a lot of money for it.

- A: Mike Porter: With respect to the sequences of glacial lake sediments. The first man who studied had the name of Matthews and it was the first report that describes these in detail. Since that time, there are three different lake deposits. One is much older than some of the sediments that Matthews described. In terms of breaking up the sequence that was described in this report, there was a lake deposit that was formed and those were over ridden by glaciers and consolidated. As the ice retreated, another large glacier lake established. What researchers and geologists have done is break apart these two lakes. They've attributed the lower lake deposits to Matthews and the upper as Lake Peace. The characteristics are quite different. In terms of erosion and stability effects that we see, it's very true. There are landslides in many locations including on a number of tributary creaks. The impacts are to define areas where it's anticipated that the reservoir would have an impact on slope stability. There is land further from the proposed reservoir that is not captured.
- Q: Jim Little: Yes, that's my point. We want to look at the cumulative effects, so what Site C adds to is what's already there.
- Q: Mark Meiers: Mike, you just used a term "beach" for your erosion which is misleading. Have you been to Williston or Dinosaur Lake? The beaches you refer to are mud flats and they are completely useless.
- A: *Mike Porter*: One of the big differences with this site is the operating range of Site C is proposed is only 6 feet. On Williston, when water levels are down, there are very large flats that are exposed. Secondly, although there are areas of erosion predicted around Site C, they are dramatically less than what was experienced at Dunlevy, which is because of the difference geological conditions and the way the reservoir would be operated.
- C: Mark Meiers: I can think of one mud flat on Dinosaur Lake because you sink right to your knees. You can't take your boat. Some creeks are silted and you can't get within half a mile of those creeks because it's full mud.
- Q: Patricia Backlund: The soil samples collected from specific properties, how do we go about obtaining that information if our property wasn't tested?
- A: Mike Porter: The impact lines were developed from historical information and from extensive site specific investigations carried out last year where geotechnical drilling and soil sampling was completed. We have an agreement in place to share information with individual property owner's land and you're asking how that information will be shared with adjoining properties. The answer is

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that it is our intent to synthesize the information and make it available on geological cross-sections around the reservoir, which will show a summary of the information was gathered.

- Q: Patricia Backlund: As far as peer review of the actual analysis of the information on the soil?
- A: Andrew Watson: We wanted to put this information about impact lines and Highway 29 out, as we wanted to do some initial consultation and land owners have been asking for it. The methodology that we have been working with for these studies with is with the regulators right now. There are draft Environmental Impact Statement Guidelines out for public comment right now which describes the methods of how we are doing this work. Once we have the final guidelines it will go into our Environmental Impact Statement and it will be summarized along with a description of the review.
- Q: Bob Johnson: I wonder about what will happen to the river when construction starts. When does the river get affected? Does the water get diverted right away and start to build up immediately? Or does it build up once the project is finished?
- A: Andrew Watson: There is some more detail on this in the Project Description Report, which is online or we can provide a copy of. It's a seven-year construction period and right away, we will build coffer dams on both banks to channel the water. We'll be excavating two twin diversion tunnels under the north bank. By year three, the coffer dams will meet in the river with a channel between. Once the diversion tunnels are completed, we'll close the channel and begin diverting the river. That diversion period will be for the remaining four years of construction. Once the generating station, spillway and other structures are complete, we will then control the flow through the diversion tunnels and control the reservoir rise. Once it's at the approach channel, then we will close the remaining diversion tunnel. The formation of the reservoir will be about a six-week filling period; flow of the river will continue during that time.
- Q: Unidentified: I thought the river was going to back-up to Cache Creek?
- A: Andrew Watson: What happens when the water goes through those diversion tunnels, they are pressure tunnels so there will be a head pond created that will extend back and depending on the flow from upstream that could reach back to Cache Creek. So the flows could change upstream near Cache Creek.

Andrew Watson introduced the overview of Highway 29 preferred realignments and reviewed the preferred realignments or corridors in the six segments.

- Q: Jim Little: The map here shows the actual road beyond the impact lines? Is that how it's going to be?
- A: Andrew Watson: There are places where the road will be built out onto an embankment in the river. We feel the best thing to do there is build up an embankment, like a berm.
- Q: Jim Little: On Watson Hill, the Ministry of Transportation already has a significant problem keeping that hill there but you're still retaining that as a route. Why would we not go across and back over to avoid that point all together?

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- A: Andrew Watson: We've worked closely with the Ministry on these realignments. The best route for Highway 29 is through the river valley. We've worked with the Ministry on those for those considerations.
- Q: Jim Little: The original Halfway Bridge washed out and since then the east bank of the halfway has been retrograded about 13 metres, how do you prevent the bank from falling in more? That is going to have to be replaced in 10-15 years.
- A: Andrew Watson: As part of these realignments, there is rip rap protection on both banks.
- C: Jim Little: There is a significant current at the Halfway and it will still break down in high water events.
- C: Nancy Spooner: Can I ask that you note those very specific comments in your feedback form?

Siobhan Jackson reviewed the proposals for recreation sites and public safety and use of the proposed reservoir during construction and operations.

- C: Scott Ebert: I have a concern about the proposed sites for recreation access. We'd like you to look at places that are more easily accessible for the public. I know it's only 30 kilometres but there are obstacles to get there. There are times at the Taylor launch were we've had up to a hundred trailers at one time. With the lake likely becoming more popular than the river environment, we'd like to see you look at better places with safer access.
- A: Siobhan Jackson: Thank you. We heard that at other meetings as well and you should write that in your feedback form. We are going to go back and look at sites upstream of the dam, as you understand, it's a bit topographically difficult once you get downstream of Cache Creek. We also want to know how much private land there is and if we can even find a spot. We will take a look downstream with the comments that we've heard.
- Q: Jim Little: I hope that you will get some access points on the lake. I hope that's written into the project. If not, there will be hell to pay. My concern is that depending on how much this reservoir sloughs, I can see it being put off, so there needs to be funds put aside and guaranteed. The other thing, in terms of the Rod and Gun Club is that we are concerned about wildlife and habitat. We will want compensation or mitigation for wildlife habitat lost for this reservoir. It may mean BC Hydro will have to buy private lands. You need to meet those mitigation challenges.
- A: Siobhan Jackson: We are doing a wildlife assessment and the focus for ungulates is on critical winter range. My comment was about recreation access and not looking to take private lands for that. If they need to look for appropriate mitigation habitat they'll look at private habitat lands if needed.

Andrew Watson reviewed 85<sup>th</sup> Avenue Industrial Lands and the multi-use of this site for the Site C project.

- Q: Jim Little: Firstly, will the topsoil stockpile at the 85<sup>th</sup> Avenue Industrial Lands be covered?
- A: Andrew Watson: Yes, we'll be dealing with it so that it's not dust generating. What's ideal about this material is that it is cohesive so as long as it doesn't dry out shouldn't be dust generating. The only material on the site that can't be used in the dam, is the top metre or so and that can be used to create the perimeter berms.

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	Fort St. John, B.C.

- Q: Jim Little: You'll have to deal with the abatement to make sure it doesn't become dust. You know how much waste material was brought up prior?
- A: Andrew Watson: During site preparation, we may have to use some trucks to move material around. We'd have to look at what to do with the concrete.
- Q: Jim Little: The belts will be transition belts?
- A: Andrew Watson: Yes, they'll go from one belt to the other and it will just drop onto the other belt.
- Q: *Jim Little*: Where will the transitions be located?
- A: Andrew Watson: This is just a conceptual drawing. We will be doing more work to design the belt once we are farther along in design.
- Q: Jim Little: When you talk about building conveyors, you're aware of the groundwater in the area?
- A: Andrew Watson: Yes, we are aware.
- Q: Don Irwin: Would you go over the 35-metre slope in more detail?
- A: Andrew Watson: If you look on page 30, the downhill point on that yellow box outlining the 85<sup>th</sup> Avenue Industrial Lands is about 35-metres lower. What we will do is flatten the slope and create a gradual slope on the uphill side of that. Conceptually, we propose a 3-1 slope so it's easy to walk and then a level-grade below. It would always be a downslope towards the dam. We have flexibility in these lands on how we do that and the permanent access routes will be part of the consideration where it's best to flatten the area.
- Q: Don Irwin: It won't affect the roads at all, just within the site. The roads within the site.
- Q: *Jim Little*: On the corner, you've got slope but it will have to be some kind of slope right in the northwest corner to go into parcel two. I expect that the way it would have to be.
- A: Andrew Watson: That's right.
- Q: Jim Little: What other property has BC Hydro bought that are associated with the Site C? I know of a site near Chetwynd, that's a gravel pit and that's not in the materials. I see this land purchase as being more of Stage 4 activity.
- A: Andrew Watson: We have a passive acquisition program. We've purchased a few in the valley. We have been working with an owner of a potential gravel site but we've not done any purchases. If you're looking for the total number of purchases, I'll ask the properties people to get back to you.
- C: Patricia Backlund: It would be nice if the feedback form didn't start on the back of the page. I want to keep the booklet but I'll be missing a page when I return the feedback form.
- Q: *Mark Meiers*: Dave, you said Toad River was on diesel, why haven't you switched it over to propane?
- A: Dave Conway: I don't know, the option we have is to provide them with diesel and I expect it's because of cost. I'd have to check into it.
- C: Mark Meiers: Propane is quite clean burning and the diesel is dirty. Talisman has taken all their drilling rigs and switched them over to natural gas, the cost savings per day is \$34,000. This might be sort of new technology that Talisman Energy is doing. The exhaust is quite a bit cleaner. Propane is the derivative of natural gas.

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- C: Jim Little: There's little or no mention of agriculture in this Discussion Guide. When is that coming out?
- A: Siobhan Jackson: I will start with a broader comment, the topics we are doing here are to help us define the project and some mitigation opportunities and we will return with other topics, including Agriculture in the fall. In terms of Agriculture, our studies have been underway since last year and they are continuing with the integration of our climate data into Agricultural Assessment. In general, the environmental assessment agencies are working on the draft EIS-G right now. That's basically the terms of reference for what our application must include. Our timeline to complete our assessment is early 2013, when it will be submitted for joint panel review. So this is material as part of our development of that work.
- C: Nancy Spooner: We have 5 minutes left, I would like to hear from you is there interesting in talking about the Hudson's Hope berm or further discussion on the project in general?
- Q: Bob Johnson: What is a berm?
- A: Andrew Watson: What we are looking at on page 14 is some consultation that we did with Hudson's Hope residents. There is a section of the reservoir that is silts and clays that are prone to erosion. For that area, we are proposing an engineered structure to offset the effects of the reservoir. On the image on page 14, if you look at the up-sloped area of Hudson's Hope near the arena, there is a transition where the geology changes from silts and clays to bedrock. We are proposing a berm in the area in front of the resident's properties. It's a gravel structure faced with rip rap for protection. It will be parallel to the river and built about seven metres wide. It provides weight to increase stability and a barrier for erosion.
- Q: Patricia Backlund: Just for clarity, the berm in Zone A is going to be against the bank?
- A: Andrew Watson: It will be in front and it will not impede the flow of water.
- Q: Mark Meiers: What about weather changes and how that will affect our surrounding agricultural land?
- A: Siobhan Jackson: We are including microclimate studies as part of our work. I will comment that the relative change in climate will be fairly modest. The Site C reservoir will be about 2-3 times smaller than the surface area of Williston Reservoir. We are doing the assessment to understand if there will be any localized affects.
- C: Mark Meiers: I don't know if the models were done for Williston and Dinosaur.
- C: *Jim Little*: The new reservoir will be warmer than Williston, and because of that we'll have more fog.
- A: Siobhan Jackson: Those are hypothesis statements and as we are doing models to take into account any water temperature changes. We are looking at site specific locations for icing and fogging and in terms of agriculture and airport conditions.
- C: Jim Little: We've had more moisture where we farm downstream of the dam. We can't get a second crop of hay since Williston went in.

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- Q: *Unknown*: What is the price tag of this project?
- A: Dave Conway: \$7.9 billion dollars for the whole thing including road realignment, recreation and transmission.
- Q: Unknown: What is the price tag of the actual dam?
- A: Andrew Watson: The price of the dam and generating station are about \$3.3 billion of that number. \$530 million is the estimate for clearing, access roads and property costs. There are indirect costs, like the regulatory process for example, that makes up the components of the \$7.9 billion.
- Q: Unknown: What about the price tag of the land that you've purchased?
- A: Andrew Watson: The 85<sup>th</sup> Avenue lands were approximately \$12 million.
- Q: Unknown: Where is that money coming from for those purchases?
- A: Andrew Watson: If the project proceeds, the cost of that purchase wouldn't come to affect rates until 2021 when the dam is in service.
- C: Dave Conway: The money used now is coming from BC Hydro operations and money approved to move the project forward.
- C: *Mark Meiers*: According to the numbers in Taylor, BC Hydro has spent \$180 million so far on these studies.
- A: Dave Conway: That would be all the work that's done to date as of March 31, 2012. The start date was right up to Stage 1 which was about 2005. If we were certified, then that's where the cost will be.
- Q: Mark Meiers: The 1980s studies were not included?
- A: Dave Conway: No, they were not included.

Dave Conway wrapped up the meeting and encouraged participants to complete the feedback form and asked participants to encourage friends and others to participate.

The record notes that the meeting ended at 11:00 a.m.

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	Best Western Dawson Creek – Room 1
	500 Highway #2
	Dawson Creek, B.C.

PURPOSE	Notes from a multi-stakeholder meeting for the BC Hydro Site C Clean Energy Project held with stakeholders and representatives of the Site C Project on April 23, 2012 at Best Western Dawson Creek, Dawson Creek, B.C.
FACILITATOR	Judy Kirk, Kirk & Co. Consulting Ltd.
ATTENDEES	Tim Bennett, FLNCO Kathleen Connolly, Chamber of Commerce Eric Chapman, Cariboo Road Services Teresa Crate, Scotiabank Rob Dennis, SD #59 Greg Dueck Joanne Dueck Jerimy Earl, DC COC Harold Hammer, The Drain Surgeon Jodi Hammer, Mob LK Marine Fran Haughian, PRRD Elizabeth Hunt, FLNRO Darryl Kroeker, Ducks Unlimited Brian Lievense, Encana Travis Luka Clarence Mineault , AB Security Kathy Mineault, AB Security Patsy Nagel, BCWL Neal Norman, Reg Norman Trucking Ltd. Jane Parsons, Londry W.I. Brian Pate, West Fraser Mill Mark Phinney, LP Canada Diana Pozer, ICBC Meredith Thornton, Timberlance Trail & Nature Club Bruce White Al Van Tassel, SD #59
SITE C PROJECT TEAM ATTENDEES	Dave Conway, BC Hydro Siobhan Jackson, BC Hydro James Thomas, BC Hydro Don Wharf, BC Hydro Duane Anderson, BC Hydro Simon Douglas, Site C Project Team Mike Porter, Site C Project Team Tim Lai, Kirk & Co. Consulting Ltd., Meeting Recorder

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### **KEY THEMES**

## **Transmission**

• Participants expressed an interest in transmission requirements for Site C, including the width and clearing requirements for the right-of-way needed for new transmission lines.

## Workforce

- Participants were interested in workforce planning, particularly how shifts would affect whether families would settle in Dawson Creek during construction of Site C.
- Participants recommended that workers be bused to work sites to reduce congestion on local roads.

### Reservoir

 Participants expressed concern about how BC Hydro will undertake debris management more effectively than at the Williston Reservoir.

## **Agriculture**

• Participants expressed an interest in the effect of Site C on agricultural land.

The record notes that the meeting was called to order at 1:00 p.m.

## **DISCUSSION**

(Abbreviations will be used and mean – Q: Question, A: Answer, C: Comment)

## 1. Welcome and Introductions – Judy Kirk

Judy Kirk welcomed participants to the multi-stakeholder meeting, explained the format of the meeting and introduced the Discussion Guide and Feedback Form. Judy informed participants that the meeting was being recorded for accuracy. Roundtable introductions followed.

## 2. Review of Consultation Discussion Guide and Questions and Answers – All

Dave Conway reviewed the introduction to the Discussion Guide, including ways to participate in the consultation and the schedule of open houses and the list of information items and consultation topics.

Dave Conway reviewed BC Hydro's energy planning, design of Site C and key project benefits.

- Q: Jodi Hammer: What's the difference between the stakeholder meetings and the open houses? How were people invited?
- A: Judy Kirk: BC Hydro has a stakeholder list of about 3,000 people. Some signed up to be part of the list, others registered at previous meetings. Stakeholder meetings are small and give people a

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chance to talk to the team members. Open houses are publicly advertised and anyone can come. At open houses, we have display boards up and people can walk around and look at those and talk to team members. Everything in this Guide is the core of the information provided at both types of meetings. During the last hour of an open house, we generally have a question and answer period.

Simon Douglas provided information regarding transmission update.

- Q: Brian Pate: Would the transmission lines be the existing width and could you utilize existing access roads?
- A: Simon Douglas: I'm going to review that right now in the Guide. In the graphic on page 8 of the Guide, the taller poles are the new 500 kV lines and the smaller ones are the existing 138 kV lines. In the previous proposal the right-of-way would have had to have been widened by 34-metres to accommodate four towers, but BC Hydro is looking into plans for just 500 kV lines. We don't know what the width of the right-of-way would be. There will be access roads required and the plan for access roads is still under development.
- Q: Brian Pate: Will that be permanent or temporary access?
- A: Simon Douglas: Those plans are in development. They could have a dual purpose to facilitate other construction projects.
- A: Judy Kirk: We are coming back in the fall with update topics such as access roads.
- Q: Brian Pate: When would construction of the transmission lines start if all goes according to plan?
- A: Simon Douglas: We are still looking at that. It would be at least a year after the project's construction has started.
- Q: Mark Phinney: Is the existing right-of-way cleared to maximum width right now?
- A: Simon Douglas: It is cleared to its maximum width. There are some danger trees that would need to be cleared adjacent to the right-of-way.
- A: Siobhan Jackson: Just to clarified, it's cleared to the width we occupy. We have additional right-of-way that's not cleared.
- Q: Mark Phinney: Will there be more clearing to accommodate the 500 kV lines?
- A: Siobhan Jackson: Yes, there will be more clearing. The access roads will be built for clearing now, but for vegetation management in the long run.
- Q: Mark Phinney: What is the current width of right-of-way?
- A: Simon Douglas: I will have to get back to you.
- Q: Darryl Kroeker: Have the new lines in yellow been surveyed?
- A: Simon Douglas: That's the current right-of-way with the 138 kv lines. It would follow the existing course which has been well surveyed; however, there would be surveying for the new tower as well as clearing and construction access.
- Q: Brian Pate: Does BC Hydro use pesticides to control vegetation on the right-of-way and would you keep that for the future?
- A: Siobhan Jackson: Yes, we do. We have a pesticide management program with the province. We work with regional districts and other utilities on the current right-of-way.

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Siobhan Jackson provided information on planning underway regarding worker accommodation and mentioned that worker accommodation will be a consultation topic in the fall 2012 consultation.

- Q: Darryl Kroeker: Is there an option to extend the construction period in order to reduce bottlenecks and prolong economic benefits to the region?
- A: Siobhan Jackson: No. The sequencing of the project is a 7 year plan. We're quite keen to get the benefit of the project as soon as possible which is the electricity production. After the 7 years, we would have a year for clean-up and reclamation, so we are looking at 8 years in total.
- A: Judy Kirk: Even though asked and answered, I encourage you to write that down as a comment here or during the environmental assessment.
- Q: *Mark Phinney*: Are the proposed locations of the camps, north and south, known or will that be rolled out in the fall?
- A: Siobhan Jackson: At the outset, we see a need for two locations. The specific footprint isn't known but we will know later, most likely when we come back for consultation in the fall. We can generally show you the location on a map.
- Q: *Mark Phinney*: It's a logistical issue to have two camps? The logistics override the costs of two camps.
- A: Siobhan Jackson: We're looking at the logistics. The cost is not only infrastructure, but also productivity and efficiency of the site. We could have additional bottlenecks and hazards at the site. We are looking for a logistical, simplified site and a business case of the different cost factors.
- Q: Darryl Kroeker: If you have camp on the south side, what will the access be? Will there be a bridge?
- A: Siobhan Jackson: In the first year, we will be building access from south from Chetwynd utilizing Jackfish Lake Road with improvements. We are also looking at a construction bridge at the dam side from the north site. The footing of the structure would be incorporated into the dam over time.
- Q: Darryl Kroeker: Would the road from Chetwynd be built up considerably?
- A: Don Wharf: We are looking at existing road networks and utilizing the existing construction of access roads. We are looking not as a paved surface road but possibly seal-coated roads, not permanent in nature as far as construction goes. The decision as to whether they would be permanent or temporary has not been made. However, it would definitely be strong enough to carry construction traffic.
- C: Darryl Kroeker: It's a busy road already.
- C: Don Wharf: Yes, and the existing network isn't the most efficient.
- Q: Rob Dennis: My comment is regarding the shifting of workers. If it's 7 days on, 7 days off, workers will go home. If they're 5 days a week and they start building houses in Chetwynd or Fort St. John, then we need to find school space. How the shifts work is huge for whether families settle. It will impact us.
- A: Siobhan Jackson: As contractors and businesses that bring that workforce come on-board, we will work with them to understand the shifts that work for the overall site. We won't be dictating it.

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- Q: Rob Dennis: It's fair enough as long as it's not immediate. We can't build a school in a year.
- A: Siobhan Jackson: BC Hydro is looking at building a year-by-year plan. Due to this, we can understand the use of amenities and impacts to the school district and responsibility accommodate the work force. One of the things we're looking to build into the plan is an annual plan. The work schedule over time will be dynamic.
- Q: Brian Pate: We've had issues with the mines around Chetwynd. Bussing the workers has worked. It's kept streams of vehicles on the shift-change off the road. It also restricts workers from wanting to do everything at the same time. It would have less impact on the community if you can have them contained.
- A: Siobhan Jackson: On the south side, we're looking at restricting private car use and creating a parkand-ride out of the Chetwynd area.
- C: Rob Dennis: We have about 80 buses on the road twice a day. That's always a concern for us because we have competition for roads with buses, and the drivers of those buses.

Mike Porter provided an overview of the preliminary impact lines and land use around the proposed reservoir and reviewed the four impact lines and proposed shoreline protection at Hudson's Hope.

- Q: Brian Pate: We're a logging company so are there any restrictions in those zones other than the foreshore?
- A: *Mike Porter*: Most of the land use considerations relate to residential and agricultural land use. Regarding considerations for forestry, we need to have those discussions with companies and tender-holders, and crown.
- A: Siobhan Jackson: These land use guidelines mainly consider activity on private land. Our main interest is to consider residential structures.
- Q: Brian Pate: How would this affect logging and pipelines?
- A: Siobhan Jackson: Our focus right now is with residential and crown land, but we'll work with the province to understand the process.
- Q: Brian Pate: I'm a bit confused and wondering why we're here today. Lots of issues go beyond what you have here. Is there another process?
- A: *Judy Kirk*: This would be something that would be in the environmental assessment. And there are many other topics like that.
- C: Brian Pate: It would be nice to have that clearer in the invitation.
- Q: Brian Pate: Will you have monitoring stations on Williston to monitor landslide or would you wait until the land moves?
- A: *Mike Porter*: We have instrumentation that's already been installed to monitor groundwater levels and to monitor slope movements in areas where landslides happened in the past and where we expect them to happen in the future. If the project went ahead, that monitoring would be expanded, and hopefully installed before the reservoir is filled to establish baselines.
- Q: Brian Pate: Do you expect a lot of dust build-up like at Williston?

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- A: *Mike Porter*: There are two main differences. One would be how the reservoir was operated. Here, the operating range will be 1.8 meters, which is significantly less than at Williston at 55 feet. For example, at this time of the year, there's a lot of exposed beach which is a significant contributor to dust that we wouldn't have here. The other is that there are erodible silts and sands in Williston and the geology with Site C would be different. Those materials in the reservoir have been overridden with glaciers. They're denser and more resistant to erosion. There's a thick layer of sand and gravel above it as well. That sand and gravel will over time slow down the erosion process.
- Q: Brian Pate: Is there a map to show those stability and erosion impact lines?
- A: Mike Porter: Yes, they're on the website. There are 17 map sheets that show all of them.
- Q: Greg Dueck: With the impact lines drawn currently, how much private land needs to be purchased?
- A: James Thomas: Based on the information we have, we expected up to 30 residents to be directly impacted. Of those 30, with further geotechnical analysis, 10 could remain. A further 10 could potentially relocate structures on their property if the conditions allow and the owner is willing to do so.
- Q: Dave Conway: To clarify, that includes highway realignment, not just the impact lines?
- A: James Thomas: Yes.
- Q: Darryl Kroeker: Would BC Hydro only purchase land up until the high water mark? Are land owners expected to absorb the other impact zones?
- A: James Thomas: BC Hydro is proposing to acquire land up until full supply level. The impact beyond that, BC Hydro would then acquire a statutory right-of-way. Looking at the graphic on page 13 of the Discussion Guide, BC Hydro would buy up until the blue (flooded area). The green (Flood, Erosion or Landslide-Generated Wave Impact Zone) and pink (Stability Impact Zone) areas would be covered by the statutory right-of-way.
- Q: Darryl Kroeker: Is that with financial compensation?
- A: James Thomas: We would acquire it at the current market value at the times of purchase.
- Q: Mark Phinney: So BC Hydro would buy up until "head pond"? Is this expropriation?
- A: James Thomas: In a statutory right-of-way, BC Hydro would compensate the owner for those rights to the land. The owner would retain ownership of the land, but BC Hydro would retain rights to carry out certain activities such as the right to flood.
- A: Siobhan Jackson: We had a recommendation from the BCUC about 30 years when we proposed to buy out the property outright. They wanted us to find a way to minimize our take of the land while allowing more land use to continue. This is our balance in-between getting the rights to allow for public safety and continued land use. If we were to buy it outright, it would severely reduce the land use than this approach. That's the balance; it's not our unwillingness to buy the land, but our desire for balance of land use over time. That's the lesson from doing a few reservoirs.
- Q: Patsy Nagel: Could you explain rip rap on the Hudson's Hope berm?

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- A: *Mike Porter*: Rip rap are large stones designed to absorb the energy from waves. That's also to prevent the process of erosion.
- Q: Greg Dueck: I've got a question regarding the sewage area in Hudson's Hope. If you raise water levels, is there any risk of cross-contamination?
- A: Mike Porter: That's a good question. We don't think so, but we're studying that right now.
- Q: Brian Pate: Where are the materials coming from for the berm?
- A: Don Wharf: In Zone B, we're looking to flattening the slopes there and could utilize that material for the core of the berm. The rip rap protection would come from Portage Mountain. That material would also be used for any armory or rip rap for the highway as well. The granular material for the highway would be coming from the flooded zone in the valley, primarily at the confluence of major creeks and streams from Lynx Creek to Cache Creek.
- Q: Brian Pate: Would it be inside the existing footprint?
- A: Don Wharf: Yes.

Don Wharf introduced the overview of Highway 29 preferred realignments and reviewed the preferred realignments or corridors in the six segments.

Siobhan Jackson reviewed the proposals for recreation sites and public safety and use of the proposed reservoir during construction and operations.

- Q: Brian Pate: Debris management, there's still debris on Williston. You're still burning debris there. How will you manage it for Site C?
- A: Siobhan Jackson: The surface area of Williston is 1,700 square kilometres. As famously known, we did not clear much of it at all. There was no forest sector up here at that time. It was a large area with a small construction window and no one really to take the material at the time. The Site C reservoir would be 93 square kilometres so it's 5% of the size. It's a very manageable area for the timeline we have to clear it. We'll be back in the fall with our full clearing plan. We'll include our debris management proposal. It'll try to minimize the waste we produce on the wood waste side. We will retain some flexibility for burning when it's appropriate. As for floating debris, we're planning for where the debris booms would be. We would deploy more in the early years to catch it in tight areas and planning where the landing areas would be.
- Q: Brian Pate: It's very dangerous having that debris on the surface. I know you do it across the province.
- A: Siobhan Jackson: Williston is not a flagship in that regard. We've got active recreation. Revelstoke was fully cleared and had fewer problems. We've learnt that lesson from history for sure and put a good plan together.

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- Q: Mark Phinney: There doesn't seem like any access from the south side. Boaters from Dawson would have to drive quite a distance to take advantage of the reservoir and launches. You could go from Taylor but that will become a very short ride.
- A: Siobhan Jackson: We've heard that. We've looked distances to Lynx Creek and because of the shape of the reservoir, it would actually be about the same driving distance and time to drive on the highway Lynx Creek compared to driving on busy access roads on the south side. The main land manager on the south side would be the Crown and we'll be suggesting a few access roads for forestry purposes.
- C: Mark Phinney: I'm not a river boater.
- A: Siobhan Jackson: On the south side, BC Hydro will be doing improvements at the boat launches at Clayhurst and Black Foot. Regardless of Site C, we're doing improvements there. We're also doing maintenance at Peace Island Park. From Dinosaur Reservoir downstream, we would have at least two sites downstream of the reservoir and three on the reservoir.
- Q: *Mark Phinney*: Looking at shading of reservoir on page 23, is that as far up the Moberly as any flood impact would be?
- A: Siobhan Jackson: It's about 12 km on Moberly, about the same on Halfway and about 8 km on Cache C reek. We hear that a lot; that it's not as far as people thought flooding would go.
- Q: Brian Pate: What will reservoir fluctuation be? Would it be about a meter or two a day?
- A: Siobhan Jackson: The full range would be about 1.8 metres. On a day-to-day basis, to absorb the change upstream would generally be about a foot, in order to absorb the normal variation.
- Q: Patsy Nagel: We used to go fishing at Alwin Holland Park there's not going to be any river fishing anymore?
- A: Siobhan Jackson: At Alwin Holland Park, there's going to be a five-metre elevation rise on the shoreline. We've proposed to provide funds to the District of Hudson's Hope to do improvements at the park.
- Q: Patsy Nagel: If the river comes up by that much, you won't be able to do any fishing.
- A: Siobhan Jackson: The area below Peace Canyon Dam would be a reservoir, not a river type environment.
- Q: Judy Kirk: Will there be access to the shorelines and fishing?
- A: Siobhan Jackson: Our biologists are working on a fisheries assessment to predict the species in the reservoir. They anticipate bull trout and rainbow trout to be about the same as now. There would be an increase in Kokanee lake white fish and lake trout as they get recruited from upstream. There are a lot of nutrients in this habitat. That will all be included in our fisheries assessment.
- A: Duane Anderson: The berm below Hudson's Hope and at Alwin Holland Park would have day-use access to the shoreline.
- Q: Patsy Nagel: Just no river fishing.
- A: Siobhan Jackson: No, not there, but downstream of Site C.
- Q: Brian Pate: Fish and fish movements are part of another process?

MEETING DETAILS	BC Hydro Site C Clean Energy Project
	Project Definition Consultation, Spring 2012
STAKEHOLDER	Dawson Creek and Pouce Coupe – Stakeholder Meeting
MEETING	April 23, 2012, 1:00 p.m. – 3:00 p.m.
	Best Western Dawson Creek – Room 1
	500 Highway #2
	Dawson Creek, B.C.

- A: Siobhan Jackson: We've been studying those for years and it's a massive subject. We've studied this since 2005 and that information will be part of the EA process.
- Q: Brian Pate: Do you expect the reservoir to freeze in the winter?
- A: Siobhan Jackson: Our full study will be coming later, but expect the reservoir to freeze lower down on the reservoir, but not as much near Peace Canyon Dam as Hudson's Hope, due to the temperature influence from the dam. It could also depend on the year.

Duane Anderson reviewed 85<sup>th</sup> Avenue Industrial Lands and the multi-use of this site for the Site C project.

- Q: Jane Parsons: How much did BC Hydro pay for that land?
- A: James Thomas: BC Hydro paid about \$12 million.
- Q: Jane Parsons: Do you expect Fort St. John to buy it back at that price?
- A: James Thomas: We're still working with Fort St. John and the regional district, so it's too early to tell. It was a private piece of land.
- Q: Jane Parsons: If the project doesn't proceed, BC Hydro would lose a lot of money at that price? I can't see anyone spending that money to buy that. BC Hydro is public money isn't it? Why spend all that money before this is actually going ahead?
- A: James Thomas: It's still early and the long-term plans for that land have yet to be determined.
- A: Siobhan Jackson: The environmental assessment process requires us to provide site specific information on where our activities would be so we can assess them specifically for wildlife, heritage and other values on the land. For us to say with any certainty that that's the site and what the effects would be on that site, we felt that we needed to acquire it.
- C: Bruce White: I'd suggest that it could be sub-divided and sold off in parcels.
- Q: Tim Bennett: Do you own the materials on the land?
- A: Duane Anderson: Yes.
- Q: Tim Bennett: That's a pretty good deal for BC Hydro.
- A: Duane Anderson: It's valuable land, it's on the border of town. If the project goes ahead, we have multiple uses for it. If the project doesn't go ahead, BC Hydro is fairly confident that there's a strong market for that land.
- Q: *Jodi Hammer*: In regards to traffic flow from Fort St. John, Hudson's Hope and Chetwynd, what kind of delays, closures, shut downs would there be during construction?
- A: Don Wharf: Most of the new alignments would be rather far away from existing alignments. The impacts to road users during construction will be minimal. There will be crossing points manned by flag people, where trucks would be hauling materials from sources in the flooded zone. The disruptions could be between 10-20 minutes. 20 minutes is typical ministry standard for delays through the construction zone. Construction would be restricted mainly from May until the end of October due to weather conditions.
- Q: Jodi Hammer: Would the new alignments be constructed in the first couple of years?

MEETING DETAILS

BC Hydro Site C Clean Energy Project
Project Definition Consultation, Spring 2012

Dawson Creek and Pouce Coupe – Stakeholder Meeting
April 23, 2012, 1:00 p.m. – 3:00 p.m.
Best Western Dawson Creek – Room 1
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Dawson Creek, B.C.

- A: Don Wharf: The procurement process has not been completed. They could be done as individual packages with many contractors working at once. We have a six-year construction window and we want a year window before the dam is completed. We are looking at two construction seasons to complete each segment. The construction could start in year one and if staged, could take the full 6 years, or it could be done in 3 years.
- C: Judy Kirk: To be clear, the existing alignment would be there, while you're constructing the new alignments. That's what would minimize construction impacts.
- Q: Patsy Nagel: I'm disappointed that there is no mention of the loss of agricultural land. It seems as though no one is interested in agriculture. If you eat, you're involved in agriculture.
- A: Siobhan Jackson: We'll be coming back in the fall with more information. In a few weeks, the CEA Agency and BCEAO will be holding environmental assessment open houses in the region to seek input on all the environmental topics looking at what and how we should be assessing. We are doing agricultural studies now, which began last year and they're continuing. Those will be included in the assessment. As we get more information, we'll include it in a guide like this in the fall. Our plan is to finish all our general assessment by early 2013 and submit that for the full assessment review.
- Q: Patsy Nagel: If this dam lasts 100-years, but the farmland could be here for a million years it can never be recovered after it's flooded.
- A: Siobhan Jackson: We would be looking at a loss in agricultural land. With respect to dam life, all of our dams are operated in perpetuity. We operate them as permanent structures. The 100-year reference is generally to amortize the cost of the dam for the foreseeable future and to benchmark some of the studies. The dam isn't considered to be operated for 100-years, we plan to maintain in perpetuity. We don't plan to decommission them.
- C: Patsy Nagel: Dams around the world aren't lasting that long.
- Q: Harold Hammer: Have you given up on repairing the Bennett Dam? We're discussing another project when we have another facility that's aging?
- A: *Duane Anderson*: Bennett has a comprehensive dam safety and surveillance program. There were repairs after the sinkhole.
- Q: *Harold Hammer*: The sinkhole work is complete?
- A: Dave Conway: Yes. The sinkhole occurred in 1996, we brought in world experts as part of the remediation. We took some time to determine that remediation. The work is complete and it's the most monitored dam in the world. However, there is lots of substantive work on the GM Shrum powerhouse and other aspects of the dam like the rip rap. There's ongoing work on the spillway. Generators and turbines are being replaced because they're nearing end of life. We're spending hundreds of millions of dollars on the facility.
- Q: Harold Hammer: Is Bennett running at its most efficient levels? Is equipment still getting changed?

MEETING DETAILS	BC Hydro Site C Clean Energy Project
	Project Definition Consultation, Spring 2012
STAKEHOLDER	Dawson Creek and Pouce Coupe – Stakeholder Meeting
MEETING	April 23, 2012, 1:00 p.m. – 3:00 p.m.
	Best Western Dawson Creek – Room 1
	500 Highway #2
	Dawson Creek, B.C.

- A: Dave Conway: Equipment is getting changed as we replace the generators and turbines, we gain efficiency out of those facilities. For example with the turbines, we've gained about 4 per cent efficiency.
- Q: Harold Hammer: How many generators are running today?
- A: Dave Conway: We're running ten at Bennett and four at Peace Canyon. It depends on load, but today we're running between four and six. We work everything to peak load demand, which is the middle of winter. We have everything in the system, not just the Peace running when there is peak load demand.
- A: Siobhan Jackson: We plan our maintenance outages at other times of the year. One of the good measures on Williston is spill and rarely spill, meaning all the water held there does go through the turbines.
- Q: Bruce White: How much agriculture land will be flooded?
- A: Siobhan Jackson: Based on previous studies, and I don't expect it to change; it is about 3000 ha, which is class 1-4. We are also doing more field studies to verify the class. A big chunk of the land was classified as Class 2. We may get shifts between classes of land, but I don't anticipate the total number to change.
- Q: Brian Pate: Do you mean flooded, including the flood zone?
- A: Siobhan Jackson: That's land in the reservoir. The area within the other zones are likely able to continue with agricultural use. Some of the erosion areas are on steep slopes. That 3000 ha isn't all currently used for agriculture, that number is closer to 800-900 ha of cultivated land on the north bank. The number includes islands and areas on the south bank.
- Q: Bruce Lievense: Have you had comments from the Agricultural Land Commission?
- A: Siobhan Jackson: They've reviewed our approach to the agricultural land assessment and we've asked for comments.
- Q: Bruce Lievense: What are those comments?
- A: Siobhan Jackson: As a regulatory body, they don't comment until regulatory process.
- Q: Patsy Nagel: Regarding rates, how can the BCUC review rates when Campbell removed their decisions making authority over Site C and any of its financial liability in 2010?
- A: Siobhan Jackson The role of the BCUC relating to a certificate of public convenience and necessity was what was adjusted. The BCUC still reviews all applications from BC Hydro to recover costs from ratepayers, including costs from Site C. The BCUC, in the 1980s, when this project went forward, so did role of the environmental assessment in addition to the other role. The federal and provincial agencies didn't exist at that time. Today, there is federal and provincial legislation, so the assessment would be run by those two bodies. The financial aspect would be reviewed by the BCUC at a later date when BC Hydro would seek to recover those costs.

Dave Conway wrapped up the meeting and encouraged participants to complete the feedback form and encourage your friends and others to participate.

The record notes that the meeting ended at 3:00 p.m.

MEETING DETAILS	BC Hydro Site C Clean Energy Project
	Project Definition Consultation, Spring 2012
LOCAL GOVERNMENT	Dawson Creek and Pouce Coupe – Local Government Meeting
MEETING	April 24, 2012, 9:00 a.m. – 11:00 a.m.
	Best Western Dawson Creek – Room 1
	500 Highway #2
	Dawson Creek, B.C.

PURPOSE	Notes from a local government meeting for the BC Hydro Site C Clean Energy Project held on April 24, 2012 Best Western Dawson Creek, Dawson Creek B.C.
FACILITATOR	Judy Kirk, Kirk & Co. Consulting Ltd.
ATTENDEES	Gerta Kut, Councillor, Village of Pouce Coupe Terry McFayden, Councillor, City of Dawson Creek Red Merrick, Councillor, Village of Pouce Coupe Charlie Parslow, Councillor, City of Dawson Creek Cheryl Shuman, Councillor, City of Dawson Creek
SITE C PROJECT TEAM ATTENDEES	Dave Conway, BC Hydro James Thomas, BC Hydro Alex Izett, Site C Project Team Simon Douglas, Site C Project Team Duane Anderson, BC Hydro Mike Porter, Site C Project Team Dave Hunter, BC Hydro Tim Lai, Kirk & Co. Consulting Ltd., Meeting Recorder

**KEY THEMES** 

## **Energy Planning**

• Local government participants asked about the need for Site C, where energy would be used and transmission line capacity.

## **Impact Lines**

- Local government participants asked about erosion and the plans for ongoing monitoring of impact lines.
- Participants expressed an interest in what the Hudson's Hope berm would look like and how high it would rise from the base of the slope.

## **Community Benefits**

• Local government representatives asked if BC Hydro is thinking about a legacy benefit associated with the project, specifically improvements to all of Highway 29 between Hudson's Hope and Fort St. John.

## **Outdoor Recreation**

• Elected officials were interested in how many informal camping sites are operated by the Peace Country River Rats and other community organizations.

Councillors noted that people are asking for recreational access from the south bank.

## Clearing

 Participants asked about reservoir clearing plans in comparison to Williston Reservoir and expressed that better clearing must be done for Site C.

The record notes that the meeting was called to order at 9:00 a.m.

## **DISCUSSION**

(Abbreviations will be used and mean – Q: Question, A: Answer, C: Comment)

## 1. Welcome and Introductions – Judy Kirk

Judy Kirk welcomed participants to the local government meeting, explained the format of the meeting and introduced the Discussion Guide and Feedback Form. Judy informed participants that the meeting was being recorded for accuracy. Roundtable introductions followed.

## 2. Review of Consultation Discussion Guide and Questions and Answers - All

Dave Conway reviewed the introduction to the Discussion Guide, including ways to participate in the consultation and the schedule of open houses and the list of information items and consultation topics.

Dave Conway reviewed BC Hydro's energy planning, design of Site C and key project benefits.

C: Terry McFayden: We've seen lots of Dave at council in the past 2 years. None of this is new so far – and that's good because we do get a lot of questions.

Simon Douglas provided information regarding transmission update.

Q: Cheryl Shuman: I wish you could swing it so that Dawson Creek is not out of power.

Dave Hunter provided information on planning underway regarding worker accommodation and mentioned that worker accommodation will be a consultation topic in the fall 2012 consultation.

- Q: Cheryl Shuman: When you talk about health services, is that dental, mental health or just first aid?
- A: Dave Conway: From a camp perspective, we'd have a high level of first aid available. Given the numbers, there would be potential impacts in the communities, to such services as physicians, policing, dental. We look at the percentage of the workforce that we bring in and how that affects the overall need. We're still working on what that ultimate impact will be.
- Q: Judy Kirk: I think what Cheryl was asking was will you have impacts on physicians, dentists? The regulators, through the environmental assessment, will look at whether the project does have an effect. First, they'll try to avoid the effect, then they'll try to mitigate the effect or minimize.

- Q: Cheryl Shuman: So that's in the environmental assessment? Interesting.
- A: Judy Kirk: Yes.
- Q: Cheryl Shuman: I hear that a lot already judgments about where the workers are going to come from, if it'll be local or not.
- Q: Judy Kirk: We heard that a lot about that yesterday during the stakeholder meeting from people who were representing local businesses they were asking about shifts and wondering how long they would be.
- Q: Cheryl Shuman: Do you have that information yet of where the workers would come from?
- A: Dave Hunter: No.
- A: Dave Conway: The region is already highly employed. If workers are coming from local and regional areas and decide to leave a position at a company in town, we would be displacing workers and creating another hole. We are aware of this possibility. We're aware that that could happen.
- Q: Cheryl Shuman: Procurement wise, I hear the wages will be quite minimal compared to other businesses.
- A: Duane Anderson: We hear both sides, depends who you are comparing with. We would be competitive with the construction industry. The project would want to include local business and local people for a number of reasons: local knowledge, skills. Frankly, it would cheaper and easier to have local workers for whom we do not need to provide housing. A lot of employees will be hired by contractors and things will depend on how BC Hydro works with those contractors.

Mike Porter provided an overview of the preliminary impact lines and land use around the proposed reservoir and reviewed the four impact lines and proposed shoreline protection at Hudson's Hope.

- Q: Cheryl Shuman: So you're talking about the water levels going up and down?
- A: Dave Conway: Yes, Site C would only go up or down 1.8 meters, whereas Williston can go up or down by 55 feet.
- Q: Cheryl Shuman: So this is more run-of-river?
- A: *Mike Porter*: Yes, Williston is for storage.
- Q: Cheryl Shuman: What is the predicted erosion distance?
- A: *Mike Porter*: The erosion impact line takes into account the predicted shoreline erosion for a 100-year period around the reservoir, driven by wind generated waves. That distance varies depending on the geology of the shoreline. Where sections are in bedrock, the erosion over a 100-year period is rather minimal. Sections with sands and gravel may see 5 to 25 meters of erosion over a 100-year period. Some sections that are in sands, silts and clays would have more erosion over the life of the project.
- Q: Red Merrick: Would the stability impact zone be re-evaluated, say after 20 years?
- A: *Mike Porter*: It will be reviewed on an ongoing basis. Shoreline movement would be most active in first 3-5 years of reservoir operation. Sometime after that, we would re-evaluate the zone.
- Q: Red Merrick: Stability impact lines would be about safety.
- A: *Mike Porter*: The impact lines were designed conservatively. From BC Hydro's position, there would be no restrictions on land use outside the impacts lines besides some regional and local government guidelines.

- Q: Red Merrick: Some unexpected erosion might warrant reevaluation.
- A: *Mike Porter*: Yes. In the Peace River Valley, outside these areas, there are hazards for landslides and erosion. The impact lines are geared towards the reservoir.
- A: Judy Kirk: BC Hydro has 17 maps online that show the impact lines.
- Q: Charlie Parslow: Do we have hard copies? I would like to get the map. And talk to Mike to understand that more.
- Q: Charlie Parslow: The berm at Hudson's Hope it'll be 30 meters high?
- A: *Mike Porter*: No, the bank is about 35 meters and the berm would come up about a third of the way up that slope. To go from a river to a reservoir at Hudson's Hope, the water level would rise about 9 meters. The top of the berm would be about 1.5 to 2 meters above that.
- Q: Charlie Parslow: It'd be about 10-11 meters higher. Some people in Hudson's Hope are asking what it would be like to live behind a 30 meter high berm? Where is the rumor coming from?
- A: Judy Kirk: I think some people are doing some simple math about a meter and 3 feet.
- Q: *Mike Porter*: A lot of people in Hudson's Hope are surprised by how much the water would increase there since they are so close to the upstream end. They expected it to be less.
- A: Dave Conway: That would take into account the flood levels, not the normal operating levels.
- A: Duane Anderson: The terrace is about 40-meters high. The berm we're talking about is about ¾ of the way up.
- Q: Cheryl Shuman: When I'm looking from that museum, you're looking over a cliff.
- A: Mike Porter: I'm not sure if you'd see it from the slope unless you got to the very edge.
- Q: Red Merrick: What you are actually talking about is rip rap, but when people talk about a berm, people think of a berm around a well site.
- A: Alex Izett: It's almost a slope buttressing.
- Q: Red Merrick: It seems like rip rap on a bank. I hear people are concerned about this berm, so it'd be good to clarify that.
- A: Judy Kirk: Let's go to page 25 and look at the artist's conceptual rendering of the berm at Hudson's Hope.

Alex Izett introduced the overview of Highway 29 preferred realignments and reviewed the preferred realignments or corridors in the six segments.

- Q: Charlie Parslow: This Highway 29 is a pleasant recreational highway. The Bear Flat/Cache Creek area has a lot of climbs and twists and turns and it's prohibitive for commercial trucks. Has there been any discussion about a legacy if this project proceeds that the total highway gets improved so it's easier for commercial traffic and other drivers?
- A: Alex Izett: We had a similar question last night from the public and the Ministry is aware of those concerns in the Cache Creek area. They are monitoring it, but it's not something that BC Hydro is actively looking at right now as part of this project.
- C: Judy Kirk: Charlie, you're talking about legacy benefits. I'd like to encourage you as local government representatives to include that in a submission or in additional comments in the feedback form. The answer that Alex gave is absolutely right with respect to the project itself.

- Q: Charlie Parslow: Regionally, local governments need to get their act together, the same way with Jackfish Lake Road as well. I understand the administrator in Dawson Creek will be looking at these in June with other CAOs.
- C: Judy Kirk: I think that's really wise.

Dave Hunter reviewed the proposals for recreation sites and public safety and use of the proposed reservoir during construction and operations.

- Q: Cheryl Shuman: Is the Peace Country River Rats a club?
- A: Dave Hunter: Yes.
- Q: Gerta Kut: Are those eight sites at the dam?
- A: Dave Hunter: One site is at the dam and the other 7 are upstream in the reservoir.
- Q: Gerta Kut: Would the River Rats be affected further down the Peace River?
- A: Dave Hunter: No, the River Rats currently have sites up the Pine as well. I don't believe they have any other sites downstream on the Peace. Sites not in the reservoir or around the dam site would not be affected.
- Q: Charlie Parslow: You talked about south access. Are there any studies about the cost of that?

  People normally go up the river from Taylor. That wouldn't be possible in the future. It would be nice to have some mitigation and access to cross the Moberly and Pine Rivers. You could also go from Stuart Lake Road area. A lot of people are talking to me about having access on the south side instead of driving up to Charlie Lake Road. Another thing, and I'm skeptical about this, but I keep hearing that there's sturgeon in the Peace River?
- A: Dave Hunter: I'd have to get back to you because I've never heard about sturgeon in the Peace River.
- Q: Charlie Parslow: Sturgeons are a protected species, at least they are in the Fraser River.
- A: Dave Conway: We've been inventorying in the Peace River for 8 years and haven't heard that there is sturgeon in the Peace River. We will check that. [Note: Dave Conway checked after the meeting and informed Charlie that there is no sturgeon in the Peace River.]
- Q: Charlie Parslow: Is there going to be any mitigation for the loss of fish? I'm sure there will be a big loss as a result of the erosion and silting in the initial years. Will there be a restocking program?
- A: Dave Hunter: Fisheries will be a key component the environmental assessment. We have a baseline since 2005-2006 of what's there. The environmental impact statement will have to include mitigation on the effects. A mitigation plan will be there. Right now, that's under development. The various species have various life requirements.
- Q: Charlie Parslow: I'm skeptical about sturgeon, but I keep hearing about it. South access is important.
- A: Dave Hunter: In terms of south access, we've heard pretty similar concepts. We've met with the Province and got their thoughts in terms of access. In the fall, we'll be presenting the project clearing plan, which has access roads to the south bank. The clearing roads are technically temporary, so if there are opportunities to provide access, they wouldn't be that developed. For people from Chetwynd going to the reservoir, the road going to Lynx Creek is the same distance as

going up Jackfish Lake Road. While having that south bank access may be useful, going around may be the same distance.

- A: Duane Anderson: Charlie, when you talk about south side bank access, do you mean to the dam site?
- C: Charlie Parslow: I have friends in the River Rats. They usually go up the Pine or up from Taylor or at Hudson's Hope. Now that's going to be prohibited with the dam. Is there any way to put in a boat launch at Dinosaur, where it's close to the dam, but on the south side?

Duane Anderson reviewed 85<sup>th</sup> Avenue Industrial Lands and the multi-use of this site for the Site C project.

- Q: *Cheryl Shuman*: Having heard of this previously, I like the conveyor belt options. That's the preferred option.
- A: *Terry McFayden*: I agree with that. Trucks could be going 24/7.
- Q: Red Merrick: How good will clean-up be compared to the first dam? Lots of trees were buried. I know you don't have the same area to clean-up. What is the intention?
- A: Dave Conway: The big difference between Site C and Williston is that you're talking about 1,700 square kilometres versus 90 square kilometres. Yes, we'll be clearing and we're developing the clearing plan. We'd take out all of the merchantable timber. We'd also look at how the waste could be used or disposed of and will be out to discuss that in the fall.
- Q: Cheryl Shuman: What about the top soil and removing organic components?
- A: Judy Kirk: That's an agriculture question and we will I be talking about that in the fall The clearing plan, is a good example of a discussion topic in the fall, however, the scope of the study will be part of the environment impact statement.
- Q: Red Merrick: Is there a standard so far because in Columbia basin, the trees and brush were cut down and burned. At Williston, when the water is low, you have trees sticking up.
- A: Dave Conway: There are several questions marks whether we would leave the stumps in or take them out, how much would be taken down and what would be left to stand. That will all be part of the clearing plan.
- Q: Red Merrick: I was just wondering if they were planning on burning it.
- A: Dave Conway: That's what we'll be looking at.
- Q: Red Merrick: From what I understand the lack of clearing contributed to the mercury problem in the previous dam.
- A: Duane Anderson: It's going to be a much different picture than Williston. We'll log the merchantable timber, there's a big focus on public safety and recreation. We definitely own what happened at Williston but it won't be a repeat of that.
- Q: Dave Hunter: We did have a meeting with the agricultural advisory committee regarding our preliminary mitigation and we discussed top soil mitigation and whether it was cost effective from certain sites on the reservoir. We've talked about it for years.
- Q: Charlie Parslow: I went through this book with many of my friends in the Fort St. John area with the Save the Peace group. They focused on a chart on page 3 because they see no need for Site C. The statement that was made that bothers me a bit as I have feelings about the oil sands is that this

was to be a 900 MW dam, but it's now an 1,100 MW dam. A former energy minister, now senator, stated at city hall in Fort St. John in 2010 or 2011 that 500 MW of the 900MW was earmarked for the Horn River gas market, which would in turn provide gas for tar sands and dirty oil. I didn't think that was true – but is it? Where are the power lines going? My understanding about Fort Nelson and north is that electricity is provided by gas generation and there is no talk about drawing this power up to Fort Nelson in order to replace that.

- A: Dave Conway: I don't recall Senator Neufeld referencing a specific amount of energy. We're looking at a conceptual plan for a transmission line to Fort Nelson. Transmission lines take a long time to plan and site. If certified, the first power we'd see would be in 2021. Regarding drawing gas from the Horn River basin, it would have more to do with price than whether there's an electricity connection to them. If the price is right, they will pull the gas out. If the project is certified and produces electricity, the electricity goes onto the grid. We don't earmark certain energy to certain locations. It's available for residential, commercial and industrial customers. If there was a connection to this region, some may end up there, some may end up with the LNG facilities being discussed on the North Coast. It really depends on the draw.
- Q: Charlie Parslow: There are of lot of conversations triggered by this graph here. Lots of people have opinions about the tar sands.
- Q: Cheryl Shuman: Will gas-fired power go away if connected to Fort Nelson?
- A: Dave Conway: If that were to occur, it'd be like Prince Rupert. Prince Rupert is connected by two 187kV lines out of Skeena substation in Terrace. We have a gas-fired plant there that we keep as back-up in case we lose the line. If it came up online, we probably wouldn't remove the infrastructure. It would depend on the cost benefit. It would cost money to keep it there because you'd have to maintain it. Our initial forecasting was a 20% 40%increase, we're now forecasting up to 50% over the next 20 years. That takes into account an increase in population by 1 million people, but also an increase in economic development, particularly in the gas and mining sector. You're seeing a reflection of it in the graph. We could use this power now for domestic purposes. We're going to market during peak season and buying from wherever.
- Q: Cheryl Shuman: That's gas, coal, nuclear?
- A: Dave Conway: We are pulling from all over. Generally speaking we're pulling off the western grid.
- A: Duane Anderson: Regarding Charlie's question, the load demand is going up by quite a bit. What confuses people often is that Site C is one of the biggest options out there and it's used as a measuring stick. When a project has similar type needs, people say it would take a Site C to fill it. But that energy goes to the grid.
- A: Dave Conway: Site C isn't a panacea, it's part of a mixture. First and foremost, we need energy conservation. You need to be at the IRP (Integrated Resource Plan).
- C: Judy Kirk: Yes, that consultation process will be happening in June and you'll be getting notified of that.
- A: Dave Conway: I encourage you to go to that because that's the planning process.
- Q: Charlie Parslow: We have Columbia and Peace Rivers dammed a two-river system. Would the Liard be dammed?
- A: Dave Conway: No. At one point, BC Hydro had flood reserves on pretty much every river in the province. My understanding is that every flood reserve has been lifted. The Liard's reserve was in

place until the early 2000s and was then removed. The only flood reserve that exists today is on the Peace River for Site C.

- Q: Charlie Parslow: So there was?
- A: Dave Conway: Yes, at one point, there was.
- Q: Red Merrick: You're basically 1,000 MW from this dam to the W.A.C. Bennett. With all these windmills and other sources, will we need another line for capacity to bring the energy across the mountains? What's the capacity for those lines?
- A: Duane Anderson: I'm far from the expert at this, but the transmission and system teams are always looking at loads. There's Site C, mines, wind and other projects. What I've heard is that they are constantly looking at that, and for the immediate future, they're comfortable with that capacity and it doesn't require upgrades.
- A: Dave Conway: There are three towers now, and my understanding is that we wouldn't need to expand that corridor. There is existing capacity on the 500 kVs. By replacing conductors and reinsulating, we can pick up the additional capacity that's needed without expanding the corridor.
- Q: Red Merrick: I'd really like to know a number or percentage of the capacity of those lines now. How much more can it take before another line has to go in?
- A: Dave Conway: We'll check into that and we will get back to you.

Dave Conway wrapped up the meeting and encouraged participants to complete the feedback form and to encourage friends and others to participate.

The record notes that the meeting ended at 10:45 a.m.

MEETING DETAILS	BC Hydro Site C Clean Energy Project
	Project Definition Consultation, Spring 2012
STAKEHOLDER	Chetwynd – Stakeholder Meeting
MEETING	April 24, 2012, 2:00 p.m. – 4:00 p.m.
	Pomeroy Inn & Suites – Banquet Room 2
	5200 North Access Road
	Chetwynd, B.C.

PURPOSE	Notes from a multi-stakeholder meeting for the BC Hydro Site C Clean Energy Project held with stakeholders and representatives of the Site C Project on April 24, 2012 at Pomeroy Inn & Suites, Chetwynd, B.C.
FACILITATOR	Judy Kirk, Kirk & Co. Consulting Ltd.
ATTENDEES	Norm Bunker, NBC Ltd.  Wade Caven, Duz-Cho/MLIB Rob Crisfield, District of Chetwynd Paul Gordon, District of Chetwynd Jim Humphreys, Duz-Cho Naomi Larsen, Chetwynd Edno Walter MacFarlane, Dokie Wind Don McKee, Mckee Vacuum Trk David Milner, Grizzco Camp Serv Doug Milner, Gizzco Camp Serv Chris Morris, Grizzco Camp Serv Lou Surerus, Chetwynd Redimir Norman Tower, Re/Max Action Russ Young, Pine River Holdings
SITE C TEAM ATTENDEES	Dave Conway, BC Hydro James Thomas, BC Hydro Alex Izett, Site C Project Team Simon Douglas, Site C Project Team Duane Anderson, BC Hydro Mike Porter, Site C Project Team Dave Hunter, BC Hydro Tim Lai, Kirk & Co. Consulting Ltd., Meeting Recorder

## **KEY THEMES**

## **Impact Lines**

Participants were interested in increases in water elevation at specific points of the reservoir, and
potential flood events. They were also interested in the number of properties affected by the
impact lines, and how BC Hydro would compensate property owners for having to move, or for
rights-of-way required on their properties.

## **Construction Materials and Transportation**

• Participants asked about sources of construction materials, including rip rap and till, and wanted more information about proposed methods of transporting construction materials to various

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construction sites. Participants were particularly concerned about the impacts of increased truck traffic through Chetwynd.

• Participants sought clarification regarding access roads to the Site C dam on the south bank of the Peace River, particularly Jackfish Lake Road.

The record notes that the meeting was called to order at 2:00 p.m.

## **DISCUSSION**

(Abbreviations will be used and mean – Q: Question, A: Answer, C: Comment)

## 1. Welcome and Introductions – Judy Kirk

Judy Kirk welcomed participants to the multi-stakeholder meeting, explained the format of the meeting and introduced the Discussion Guide and Feedback Form. Judy informed participants that the meeting was being recorded for accuracy. Roundtable introductions followed.

## 2. Review of Consultation Discussion Guide and Questions and Answers - All

Dave Conway reviewed the introduction to the Discussion Guide, including ways to participate in the consultation and the schedule of open houses and the list of information items and consultation topics.

Dave Conway reviewed BC Hydro's energy planning, design of Site C and key project benefits.

Simon Douglas provided information regarding transmission update.

- Q: Doug Milner: How long will it take to produce this transmission line from Peace Canyon to Taylor?
- A: Simon Douglas: It'll essentially run from Peace Canyon to Site C. We are still looking into the schedule. The construction schedule is currently planned for 7 years, so at most it would take 7 years to build, but it could be something significantly shorter than that. We are currently still in the planning processes.

Dave Hunter provided information on planning underway regarding worker accommodation and mentioned that worker accommodation will be a consultation topic in the fall 2012 consultation.

Mike Porter provided an overview of the preliminary impact lines and land use around the proposed reservoir and reviewed the four impact lines and proposed shoreline protection at Hudson's Hope.

- Q: Wade Craven: What are we talking about for elevation if flooding happens?
- A: *Mike Porter*: It varies between sites. At Lynx and Farrell Creek, the maximum extent of wave run up would be about 10 metres above the reservoir level. At the Halfway River, the wave impact lines ranges from 15-25 metres above reservoir level.
- Q: Wade Craven: Within the flood erosion area, would residential structures be allowed to remain? Are you purchasing that land?

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- A: James Thomas: We are planning to buy land up until the flood reserve level, where the blue is. We're proposing to establish a statutory right-of-way. That would permit BC Hydro to operate the reservoir and permit processes such as flooding and erosion. Where there are residences, we would compensate the property owner and they would retain ownership of the land.
- Q: Lou Surerus: Going back to page 11. I assume that's the Halfway River area. How far up would the reservoir levels be?
- A: Mike Porter: The water level at Peace Canyon wouldn't change. At Site C, it would be about 50 metres. The water level at Hudson's Hope would be coming up by approximately nine metres. At the Halfway River, it'll be coming about 25-30 metres. In the picture, the slope in the foreground is about 60 metres. You can make out the different layers such as the bedrock. The shoreline would be just above there.
- Q: Naomi Larson: Are there any homes in Hudson's Hope that are going to be affected?
- A: *Mike Porter*: Where the berm will be constructed, it's supposed to offset the effects of the reservoir, so the slopes would be stable or more stable than they are at current conditions. We're not drawing any impact lines at those locations. The town has been developing over many decades, and right now, there are many homes built to the edge of the slope. Over the last seven to eight years, Hudson's Hope and other municipalities started implementing setback guidelines for new residential development, which is 15 metres. The district itself will impose some constraints on new developments. Upstream of Hudson's Hope, in the bedrock, we have a similar situation, there are homes build quite close. They'll probably fall within our stability impact line. If the project went ahead, BC Hydro would acquire that land. In many cases, the owners have expressed interest in staying. They recognize that there's an existing hazard. The reservoir won't dramatically change that.
- Q: Judy Kirk: To clarify Naomi's questions, do you have the number of homes affected by the reservoir?
- A: *Mike Porter*: Within the impact lines and homes impacted by the Highway 29 realignments, it's about 30 private residences. You could categorize them into three groups: about 10 that have to move due to safety concerns, roughly 10 that have to be relocated elsewhere on the property and 10, with additional review, could stay.
- Q: Naomi Larson: Who pays the bill to move or to relocate? Is it BC Hydro or the homeowner?
- A: James Thomas: Those are discussions we are having with the homeowner. We are a couple years from having any discussions like that. We have been meeting with the owners to discuss this. BC Hydro would compensate for the rights acquired.
- Q: *Jim Humphries*: Would you pay fair market value?
- A: James Thomas: BC Hydro would pay current market value at the time we acquire the rights.
- Q: Russ Young: Someone just built a home near Dry Creek, when you head up to Farrell Creek and they are about 10 metres above current river level. How is that possible?
- A: James Thomas: BC Hydro doesn't have rights regarding that property or any private land in the valley. The owners were free to construct.

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- A: Dave Conway: My understanding is that the owner spoke with the district. My concern isn't related to the Site C project. We know they would absolutely be impacted, but we spill out of the Bennett Dam on occasion. When we did it in 1996, we had a substantial amount of water in the river. We would have a concern about that.
- C: Russ Young: You could fish from that individual's home.
- A: Dave Conway: Absolutely you could do that. So my understanding is that they did speak to the district about building there.
- Q: Lou Surerus: Is the water level affected back to Site 1? How far up from Hudson's Hope is it affected?
- A: Mike Porter: Yes, the water level would be affected back to Peace Canyon.
- Q: *Jim Humphreys*: How much of the reservoir and flooded area is privately owned and how much is owned by the Crown?
- A: James Thomas: About 7% is privately owned, 81% is owned by the Crown and 12% is owned by BC Hydro.

Alex Izett introduced the overview of Highway 29 preferred realignments and reviewed the preferred realignments or corridors in the six segments.

- Q: Jim Humphreys: How long is that causeway at Dry Creek?
- A: Alex Izett: A few hundred meters.
- Q: *Naomi Larsen*: With all the realignment and construction, does BC Hydro have a contingency plan in place if you come across burial grounds and dinosaur bones?
- A: Alex Izett: That'll be part of the environmental mitigation work. We are aware of the archeological resources in the area. There would be a general mitigation statement at this time. If the project were to happen, a plan would be written up into the contract and documents. From my experience, would be tools down, equipment stop and the site is attended to immediately by archaeologists.
- C: Dave Hunter: Currently, we're doing baselines studies with heritage and doing an inventory of all sites. If there are any remains found, there would be a protocol in place to stop work and deal with the situation.
- A: Alex Izett: The presence of known heritage sites was married to the Stage 2 highway alignments. The current alignment strives to avoid those sites that are known. So there have been adjustments that we have made here, and once we get all the information, prior to these alignments going out to tender, there could be further minor readjustments.
- Q: *Naomi Larsen*: Are any of those sites endangered of getting flooded? You can realign the highway and you won't touch it but if the water is coming up.
- A: Dave Hunter: The current inventory of heritage sites, including paleontology, is within the reservoir area. Artifacts have been found, but I can't account for how many have been found. They'll be noted in our impact assessment.

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- Q: Naomi Larsen: So you can't avoid flooding them?
- A: Dave Hunter: I can't comment on the exact mitigation, but typically, they can be salvaged. That mitigation would be in the Environmental Impact Statement.
- C: Judy Kirk: People, including First Nations, would have the ability to comment on that during the environmental assessment public comment periods.
- C: Dave Hunter: The heritage work that is taking place is very extensive. Last summer and this summer, crews are out there going through sites and doing test pits to try to find existing artifacts.
- Q: Judy Kirk: Are there study updates on archaeology online on BC Hydro's website?
- A: Dave Hunter: Yes, there is something up there, but I can't confirm how updated it is.
- C: Judy Kirk: Dave, perhaps you could check that. Naomi, that might be something that is of interest to you, so Dave, I will leave that with you to check.
- Q: Wade Craven: You have a kilometre of causeway. Where is that material coming from?
- A: Alex Izett: All of the granular material, we would be taking it from future inundated area. Prior to the reservoir being created, BC Hydro would purchase the rights to the land and those materials would be used topsoil stripped and other materials used for construction of the causeway and other elements.

Dave Hunter reviewed the proposals for recreation sites and public safety and use of the proposed reservoir during construction and operations.

- Q: Wade Craven: Do you have a debris cleanup plan in place?
- A: Dave Hunter: Part of the clearing plan that is going to be presented in the fall, debris management is a major component.
- Q: Jim Humphreys: What's the capital cost of the project up until now?
- A: Dave Conway: The entire project all in, including transmission lines, road realignment, recreation, would cost \$7.9 billion for all project elements, including transmission. To date, from all of Stage 1 to March 31, 2012, we have spent \$180 million. That includes all of geotechnical work, environmental work, First Nations consultation, public consultation and dam design.
- Q: Jim Humphreys: I'm in favour of this, by the way. We are not going to get any cheaper power than this. What's it going to cost to get buy in from First Nations in the area to recoup for BC Hydro's past sins?
- A: Dave Conway: I'm not directly involved in the First Nations component.
- C: *Jim Humphreys*: There were a few communities affected by it.
- A: Dave Conway: We have come to an agreement with Tsay-Keh and Kwadacha a few years ago that are unrelated to the Site C project. The First Nations consultation is parallel but a separate process, so I'm not directly involved in it. I know we have 12 consultation agreements with 15 First Nations around Treaty 8, around the BC side and just downstream on the Alberta side.

Duane Anderson reviewed 85<sup>th</sup> Avenue Industrial Lands and the multi-use of this site for the Site C project.

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- Q: *Doug Milner*: So you wouldn't do a borrow pit there?
- A: Duane Anderson: We would be doing it with scrapers layer by layer. We would flatten it, so it wouldn't be a conventional borrow pit. It would be working with the topography. Because the land is so close to town, its zoned light industrial and there's a lot of light industrial in the area, BC Hydro doesn't have a long-term need for this land. Through consultation, we want to find out what people, local government thinks that that land should be used for.
- Q: Jim Humphries: How much glacial till is there in cubic metres?
- A: Duane Anderson: Our need is 3.3 million cubic metres for the core of the dam.
- Q: Jim Humphries: How much rip rap is there outside the core? And where is that coming from?
- A: Duane Anderson: The core is 3.3 million cubic metres. The rest of the volume for the earthfill dam is about 12 million cubic metres. We can get the vast majority of that on site from the south bank. Rip rap would be coming from offsite we would need 300,000 cubic metres. We're looking to West Pine quarry to bring in rip rap. We're lucky to get our granular materials, concrete aggregates right at the dam site and our glacial till material close by. The one thing that's a ways away is the rip rap at West Pine quarry. Anyone who has worked up there with rock knows there's not much rock up here.
- Q: Wade Craven: What's your timeframe of delivery on rip rap?
- A: Simon Douglas: The rip rap on the dam would come later in the construction schedule about year 4.
- Q: Wade Craven: How long are you going to be hauling rip rap?
- A: Simon Douglas: Those plans are still under development. The material is a lot less significant material for the shell. It won't be years, it could be a year. I don't want to speculate.
- C: Duane Anderson: There's trade-offs for rip rap and till when you produce it, haul it, restock it and move it again or if there's a more efficient way without the double handling.
- C: Simon Douglas: When you have gravels, you don't have to deal with durability. With rock, the more you handle it, the more it breaks down and you don't get the size you need. You probably want to phase the extraction of that rock so you can handle it as few times as possible.
- Q: Judy Kirk: To Wade's question, Simon and Duane, you're still working on the construction schedule and it's not complete?
- A: Duane Anderson: Yes.
- Q: Wade Craven: How many trucks loads coming through per day through Chetwynd?
- A: Duane Anderson: As for rock coming from West Pine quarry, we haven't determined how that material will be transported. We're looking at road hauling option with truck and we're looking at rail hauling by train. We'll be factoring breakage and handling and things like that. It's to be determined.
- C: Judy Kirk: In environmental assessment process and fall consultation led by BC Hydro, there will be a transportation plan that will include types of hauling.
- C: Russ Young: I imagine it going on rail due to the million ton volume doing through town. It would have detrimental effects on local traffic.

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- Q: Don McKee: Would the material go the site at 85<sup>th</sup> street first? If it went by rail, it could come in directly from the south side.
- A: Duane Anderson: If it came in by rail, it would come in on the south side at Septimus Siding. We would need to do some work to upgrade the siding there.
- C: Simon Douglas: It would be unlikely to haul it to the north bank and stockpile it on that side.
- Q: Doug Anderson: Your workforce camps, are they going to running out of the same workforce camp or are they all going to be independent camps for each project?
- A: Dave Hunter: We're looking at all the options. We'll be looking at the Del Rio area and for the highways, maybe the RV park near Hudson's Hope, maybe it's a temporary camp. In terms of the largest camp, it would be near the dam site. There are considerations as to whether there are both a north and south bank camp. That's under consideration now.
- C: Don McKee: You answered my questions south bank access, a camp and the movement of rip rap by rail to the south side. There'll be new road construction and upgrading our road construction out of Chetwynd.
- C: Alex Izett: We are looking at the access roads on the south bank, up along Jack Fish Road through the existing area and through new routes up until Jack Fish. We're looking at the roads needed to build the new transmission lines, which would be a straight shot to Septimus, then down to the Site C from there. We'll be out with more information in the fall and may have a decision on what our preference is then.
- C: Judy Kirk: It'll all be in the environmental assessment. You can see that there's a phasing here. The Site C team does its technical and engineering work to come up with a draft plan whether you're talking about worker accommodation, access roads or materials. It then comes out like this for consultation and it gets built in to the environmental assessment. In each of those stages, you have an opportunity to comment.
- C: Dave Hunter: For worker accommodation, we expect to have some more firm sites in the fall.
- Q: Don McKee: Access, there's none across, right?
- Q: Judy Kirk: Bridge you mean?
- A: Simon Douglas: During construction, there'll be a temporary bridge at the dam site which would be used for construction vehicles only, it wouldn't be open to public. There would be a temporary structure pulled out halfway through construction when access over the bank could be achieved by a coffer dam, which then would connect to the main dam.
- C: *Norm Bunker*: Ok, it would just be used for construction.
- Q: Jim Humphreys: How much of this work will BC Hydro try to keep in B.C.?
- A: Dave Conway: From a workforce perspective, we're looking for local, regional and provincial opportunities. We know it's a highly employed region right now, so if someone were to come locally, they're probably going to leave a job and create a space for it. We want to involve as many local, regional and provincial companies as possible, but we're probably going to have to go national to get workers as well. The workforce labour procurement plan hasn't been determined yet. If you took part in our business info sessions in the fall, you may remember we're working on

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the procurement plan. It may be out as early as this December with early procurements. If you're not on our business directory, you should get on because we take your name, contact information and services you provide. When we go looking for those services, we already have a list, and of course we put those out to tender. At least we know you're there.

- C: *Judy Kirk*: Go to bchydro.com/sitec, which is on the cover of the Discussion Guide. You'll see the business directory noted on the website.
- Q: Don McKee: Regarding Jackfish Lake Road, have you done any traffic impact studies for the duration of the construction?
- A: Alex Izett: Yes, we have been taking the existing traffic volumes, provided by the Ministry. We've layered on top of that, the anticipated volumes that we associated with labour, workers going in and out, movement of materials and equipment, and additional traffic. We've layered on traffic with constriction, with construction of transmission, and traffic with the clearing. We have volume levels and that transportation management plan is under development and we'll roll that out in the fall as part of consultation.
- Q: Don McKee: Regarding estimated traffic volumes, will the roads be two lanes or leave it as radio controlled?
- A: Alex Izett: We may have to do away with the radio controlled and go with the two-way. During the initial phase of construction, it won't be two way. It may have to be radio controlled during that phase. If the existing network roads are to be used during construction as the preferred route as opposed to something along the transmission lines, then we would have to improve those roads. If the preference is to go with something along the transmission line, there might be some initial spot improvements to improve the integrity of these roads.
- Q: Doug Milner: You were talking about a 900-1,100 person workforce. Is this just the Site C dam site or does this have to do with the transmission lines and realignment of the roads?
- A: Judy Kirk: All of it.
- C: Dave Conway: It's 7,000 person years over the life of the project. It includes everything.
- C: Simon Douglas: That's an average from year to year and the peak would take place during the middle years dam work, road work, transmission work. On the latter years, before the dam is commissioned, you'd be ramping down the work.
- Q: Doug Milner: In the proposal, there'll be a graph showing the work over the years?
- A: Simon Douglas: Yes, I imagine so.
- Q: Russ Young: From the time you order turbines until they're delivered, how long would that take?
- A: Simon Douglas: It really depends on where they're coming from. Turbines are highly specialized units.
- Q: Russ Young: So they're not order yet? I'm just checking.
- A: Simon Douglas: No, those are long lead items and you would have to ensure the procurement process is long enough to get those for when we need them. It hasn't happened yet.
- Q: Jim Humphreys: Do you find it easier to deal with the EAO as a Crown than as a wind company?

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- A: Judy Kirk: I'm not sure anyone here can answer that question. The person who is the lead in dealing with the EAO is Danielle Melchior and she's in Vancouver. It's gone quite well around the process and the public comment period.
- C: Dave Conway: The only comment I can make is that it's an independent and rigorous process with the regulators. And it's the regulators providing BC Hydro with the process. We take our direction from them and they provide direction. For us, it's the first time many on this team have gone through this process.
- Q: Russ Young: With all the wind farms, which is not power on demand, what effect would it have on this decision because hydro is power on demand. If you're not producing power from a wind farm, where do you back up power from?
- A: Dave Conway: The large reservoirs we have are our back up batteries for intermittent supply such as wind or micro hydro. We have a capacity issue right now. We could use this project right now for the capacity because we can't meet peak load demand. We can go to market, it is there to purchase during peak demand. We're paying a premium to do that.
- Q: Jim Humphreys: Are you currently a net importer or net exporter of power?
- A: Dave Conway: We're still currently still a net importer. We have been for the last nine of ten years. A lot of that has to do with water availability. Last year we had plenty of water and we had a reservoir that was about 13 feet above its regular level. We could potentially spill this year from Bennett. We're actually running it quite hard right now. The previous two years were very dry so we were importing to make up for that. This year, it looks like we'll be marginally a net exporter due to the availability of water.
- Q: Russ Young: The snow pack levels are above average this year?
- A: Dave Conway: The snow pack for Williston is about 110% of normal.
- Q: Lou Surerus: Three months ago, somebody said that LNG plants near Kitimat would take all this power from Site C. What are you doing to do then? Is it for them?
- A: Dave Conway: This project, because it has defined capacity at 1,100 MW and energy at 5,100 GWH this is my observation it gets used as a yard stick as a comparison to things like LNG and the Horn River Basin. Those projects, if they are developed and they appear to be, will come online before this project before 2021. There is energy in the system now and I know the province is talking to the proponents now about how to meet the load. If the project is certified, that energy won't go directly to LNG, it would go to the grid. Some energy would go to these projects, but we can't say it would directly go there. The energy isn't allocated.
- Q: Lou Surerus: If we know that in the next 10 years or less, we're going to need 1,100 MW and that's all you're putting together right now, are there more projects out there?
- A: Dave Conway: From the perspective of large hydro, no. Through the Clean Energy Act, this is the last large hydro project to be developed. We're supposed to get 66% of energy that from conservation, PowerSmart initiatives. We're adding wind, we're adding micro hydro, we're adding biomass. There's room for a small amount of natural gas. We're directed to have 93% clean supply. This brings us back to the Integrated Resource Plan and the provincial story.

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- C: Judy Kirk: That's the electricity planning that'll be consulting in June.C: Lou Surerus: There looks like a potential for industry to be choked.
- C: Russ Young: Depends if there is a change in government.
- C: Judy Kirk: The electricity planning looks out for 20 years so that province is not choked. Q: Doug Milner: There's lot of small turbines in northern BC, up near Terrace, is there not?
- Q: Dave Conway: There lots of potential out there. Can you be more specific?
- A: Doug Milner: No I can't.
- C: Dave Conway: Until there's an application made through a call for power and an EPA award, there's lot of development out there.

Dave Conway wrapped up the meeting and encouraged participants to complete the feedback form and asked participants to encourage friends and others to participate.

The record notes that the meeting ended at 3:50 p.m.

MEETING DETAILS	BC Hydro Site C Clean Energy Project
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STAKEHOLDER	Tumbler Ridge – Stakeholder Meeting
MEETING	April 25, 2012, 10:00 a.m. – 12:00 p.m.
	Tumbler Ridge Community Centre – Room 4
	340 Front Street
	Tumbler Ridge, B.C.

PURPOSE	Notes from a multi-stakeholder meeting for the BC Hydro Site C Clean Energy Project held with stakeholders and representatives of the Site C Project on April 25, 2012 at Tumbler Ridge Community Centre, Tumbler Ridge, B.C.
FACILITATOR	Chris Chok, Kirk & Co. Consulting Ltd.
ATTENDEES	Roy Barrett, Kodiak Construction Brandon Braam, Tumbler Ridge Fire Dept. Lisa Buckley, PRPRC Barry Elliott, District of Tumbler Ridge Roxanne Fowlow, LaPrairie Crane Bev Fournier Ken Klikach Andy Larrange Scott LaPrairie, LaPrairie Crane Rich McCrea, PRPRC Ryan Murray, Projects North Penny Turega, District of Tumbler Ridge Karen Tytula, Diversified Transportation Brian Vernon, Brian's Electric Inc.
SITE C PROJECT TEAM ATTENDEES	Dave Conway, BC Hydro Alex Izett, Site C Project Team Duane Anderson, BC Hydro Simon Douglas, Site C Project Team Dave Hunter, BC Hydro James Thomas, BC Hydro Tim Lai, Kirk & Co. Consulting Ltd., Meeting Recorder

## **KEY THEMES**

## Highway 29

Participants were interested in Highway 29 realignments, asking questions regarding the timeline
for highway realignment, the potential use of materials from the existing highway in the
construction of the realigned segments, and who would be responsible for construction and
maintenance costs.

## Reservoir

 Participants were interested in the creation of the Site C reservoir, including the amount of land that would be flooded, whether the reservoir would be cleared, and how many residences would be affected.

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STAKEHOLDER	Tumbler Ridge – Stakeholder Meeting
MEETING	April 25, 2012, 10:00 a.m. – 12:00 p.m.
	Tumbler Ridge Community Centre – Room 4
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## **Business Opportunities**

 Participants asked whether the procurement model for the project had been determined, and were interested in potential opportunities for local businesses.

The record notes that the meeting was called to order at 10:00 a.m.

**DISCUSSION** 

(Abbreviations will be used and mean – Q: Question, A: Answer, C: Comment)

## 1. Welcome and Introductions – Chris Chok

Chris Chok welcomed participants to the multi-stakeholder meeting, explained the format of the meeting and introduced the Discussion Guide and Feedback Form. Chris informed participants that the meeting was being recorded for accuracy. Roundtable introductions followed.

## 2. Review of Consultation Discussion Guide and Questions and Answers – All

Dave Conway reviewed the introduction to the Discussion Guide, including ways to participate in the consultation and the schedule of open houses and the list of information items and consultation topics.

Dave Conway reviewed BC Hydro's energy planning, design of Site C and key project benefits.

- Q: Andy Larrange: How will you know the cost will be the same when you go to construction?
- A: Dave Conway: There is a contingency built into the estimate. It's about 18%. In terms of borrowing, that rate is about 5-6%. We built in a plan to cover costs going up.
- C: Simon Douglas: The cost allows for inflation over the years. It's projected to be that cost at the time the project is completed.

Simon Douglas provided information regarding transmission update.

Dave Hunter provided information on planning underway regarding worker accommodation and mentioned that worker accommodation will be a consultation topic in the fall 2012 consultation.

- Q: Roxanne Fowlow: How would the bidding process occur for worker accommodation?
- A: Dave Conway: We haven't settled on our procurement model yet. We are a Crown corporation, so it would have to go out for request for proposal. We hope to start initial and preliminary request for expressions of interest with larger components around late 2012 or early 2013. There will be lots of opportunities to local, regional, provincial and western Canada businesses. We do have a business directory. There are quite a few businesses here today, and if you aren't registered, you can do that. If basically tells us that you're here and what services your company provides. If we know you provide clearing, road building services, you'll get notification about that.
- Q: Roxanne Fowlow: Is the notification done online?

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- A: Dave Conway: Yes, it notification usually done online. If you're not on it, you'd have to let us know because some businesses don't have the online connection the farther out you go.
- Q: Roxanne Fowlow: Where do you find this business directory link?
- A: Dave Conway: It's on our website that you can see on the cover of our guide. If you have trouble finding that, I'll give you my card, or anybody else, and I'll talk you through it.

Simon Douglas provided an overview of the preliminary impact lines and land use around the proposed reservoir and reviewed the four impact lines and proposed shoreline protection at Hudson's Hope.

- C: Ryan Murray: There would be several technical issues. These diagrams are just a slice or snapshot of an area. In some places, I imagine the bed rock would be above the flood impact line and in some places it would be below it. These impact lines wouldn't be arbitrary setbacks at some distances. They would have to be set every few metres and would change along the shoreline.
- C: Simon Douglas: You're exactly right. If you looked at the reservoir looking down from the top, you wouldn't see consistent set back from any one line. It would depend on the geology of the shoreline and what materials the reservoir is in contact with. That'll depend on what erosion, flooding and potential landslide risk are associated in one area.
- C: Ryan Murray: What I see here in this theoretical proposal is when I look at the depth of the reservoir and I see how of that is taking up by bedrock, there are places where it is completely unrealistic.
- C: Simon Douglas: This is just a simple graphic to articulate theory to look at how these theories were established. There will be some areas where the bedrock will be a lot higher that the reservoir.
- Q: Ryan Murray: What I would like to see is a maximum, minimum and average scenario.
- A: Duane Anderson: BC Hydro has 17 maps online with aerials photography showing the entire reservoir, and they're on our website. You can actually see the actual three typical scenarios.
- C: Simon Douglas: You can go to any section of the reservoir and see the predicted impact line. About 50% of shoreline will have bedrock in contact with the maximum reservoir level. About 35% will be in sands and gravels. And only about 15% will be silts and clays, the highly erodible materials.
- Q: Ryan Murray: So nature has done a lot of work for you already?
- A: Simon Douglas: If you live in this area, you know there know there's lots of erodible slopes and it's a moving topography under the existing river conditions. There are natural processes at stake. Our job is to see how those processes will change when we go from a river to a reservoir environment.
- Q: Brian Vernon: I remember seeing it on TV, but there were minor tremors in the Fort St. John area. Have you addressed that?
- A: Simon Douglas: In terms of the design of the dam and the slopes over there, we have taken in account the seismicity of the region and the potential for earthquakes. The stability impact line takes into account landslides created by the reservoir. Certain slopes are going to be susceptible to earthquakes whether there's a reservoir there or not. The impact lines will take into account seismicity of the area as it pertains to the reservoir.
- Q: Brian Vernon: So you're very confident about your lines?

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- A: Duane Anderson: Yes, we have looked at all the historical data for all earthquake activity for the reservoir slopes and earthfill dam design and all of that has been incorporated into the design.
- Q: Brian Vernon: When you fill that reservoir, you'll monitor it?
- A: Simon Douglas: We would bring it up slowly. There would be an active monitoring program in place. Depending on what we see and if there are any areas of instability and concern, the reservoir can be held until an assessment can be made. Once the reservoir is filled and in operation, there would be an active monitoring program for the shorelines over the first years to see how they're responding.
- C: Duane Anderson: We have already installed a system of geotechnical monitoring instruments to monitor the groundwater level in the slopes. We're now collected baseline data to see how those slopes are performing in a non-reservoir environment. As we go into filling, we would have real-time monitoring it would be a sophisticated system.
- Q: Brandon Braam: How many residential structures will have to be removed?
- A: James Thomas: There are up to 30 residential structures in the impact line zone area. Of those 30, 10 can likely remain after further geotechnical work, 10 could likely have to be moved to another location on the same property, which leaves 10 to be removed due to the road realignment and reservoir.
- Q: Brandon Braam: Are all 30 occupied?
- A: James Thomas: Yes.
- Q: Scott LaPrairie: Does BC Hydro own those structures and that land?
- A: James Thomas: BC Hydro does own 12% of the land that would be flooded. That leaves 7% to private property and 81% is Crown land.
- Q: Scott LaPrairie: How many homeowners are opposing?
- A: *James Thomas*: We have been meeting with property owners and providing them with this information. However, it's too early to speculate a thing like that.
- Q: Karen Tytula: This is primarily agriculture farmland, right, just outside Hudson's Hope and Farrell Creek?
- A: James Thomas: It's a mix of agricultural land and residential.
- Q: Karen Tytula: The Hudson's Hope berm will secure that bank? None of the homeowners on that bank will be affected?
- A: Simon Douglas: Yes, that's the intent of the berm to provide them safety. However, we recognize that they are situated really close to unstable slopes. This protects and mitigates the reservoir shoreline in that section.

Alex Izett introduced the overview of Highway 29 preferred realignments and reviewed the preferred realignments or corridors in the six segments.

Q: Scott LaPrairie: Would this be an 85-tonne route?

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- A: Alex Izett: Yes, it would be a fully legal-load route. There would be no restrictions on the bridges; however, the restriction at Peace Canyon Bridge will continue.
- Q: Brian Vernon: What is the timeframe on these improvements?
- A: Alex Izett: We don't have a schedule for exactly when it would happen. In terms of priorities, the first section would be the Cache Creek section. When creating the coffer dam at the dam site, there is a potential for the existing Peace River to back up to the extent that it would flood the existing highway because it's the lowest section. We're looking at initiating construction at Cache Creek. Each section could take up to three years to construct. The Halfway River section would be the longest to construct, along with Bear Flat/Cache Creek. We think the other sections could take up to 2 years to build.
- Q: Ryan Murray: Looks like you want to move this highway wherever we need to eliminate the geological activities that the dam would create. You're not saying let's go somewhere else, you're leaving things close. The water levels in these creek beds are going to be significantly wider, so you'll have long bridges. When BC highways comes back and says that they don't want to build all those bridges, and say they want to take the road further north where the water impact isn't as high, what impact would that have on the project, BC Hydro and the land that would be affected? You're not thinking about the footprint to avoid too many impacts.
- A: Alex Izett: We have engaged the Ministry of Transportation and engaged them and showed them our plans from Stage 2. They've been at the table with all these options. We have to cross all these abatements Halfway River, Lynx Creek. You're right, there are large abatements close to the reservoir. The farther in we go, these gullies become large, so the cost of building bridges further in makes in rather expensive. The Ministry does endorse all of these options and design criteria. They are also cognizant of the operational and maintenance costs to the Ministry and they've endorsed it.
- C: Simon Douglas: I was involved in Stage 2 and the early works of conceptual design. At that time, we looked at a design of placing Highway 29 atop the embankment. Some of those crossings would be longer and not only would the engineering be challenging, but the economics would go through the roof.
- Q: Ryan Murray: You get the large economic benefit of leaving parts of the highway as is. What happens to existing road materials that are being decommissioned? Are they reused, recycled, relocated?
- A: Alex Izett: That is the intent; there is a plan to reuse materials. There is staging that has to be done with that. We have to keep the road open while we build other parts. We might have to leapfrog some of those materials. The Cache Creek Bridge recently built by the Ministry was constructed to be dismantled to be used for a future structure. We couldn't use it our design but they could use it elsewhere.

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- Q: Barry Elliot: I understand the roadway would go back to Ministry of Transportation. Is there a provision being made by BC Hydro to provide an allowance to the Ministry for ongoing maintenances costs for the bridges?
- A: Alex Izett: No, not that I'm aware of. BC Hydro would be responsible for the engineering and construction costs up until the roads are commissioned and operational, at which point, they would go back to province.
- C: Simon Douglas: The Ministry has provided valuable insight in respect to the Halfway River, which is the longest crossing at about 900 metres. That's a 650 metre causeway with a 300 metre bridge. The alternative to having a continuous bridge at 900 metres, even if it came at a cheaper upfront capital cost, the life cycle cost with maintaining it over its lifetime would be much more. The Ministry has voiced that that option is not preferable they would rather see a causeway with a shorter bridge.
- Q: Brandon Braam: As the reservoir fills up, you're going to be burying lots of forests. Are those areas going to be logged out?
- A: Dave Hunter: We're currently developing a clearing plan and that will be consultation topic in the fall. We're looking at harvesting merchantable timber. There will be access routes onto the site.

  There will be an ongoing debris management program that is part of the clearing plan, considering recreation and public safety.
- Q: Brandon Braam: How would you deal with debris getting close to the dam?
- A: Dave Hunter: Typically, there is a debris boom that collects debris and there is regular maintenance. Initially, when the reservoir is flooded, there may be more than one debris boom to collects more as it's coming in.
- Q: Scott LaPrairie: Do you plan on clearing all the flooded area or just the merchantable timber?
- A: Dave Hunter: It depends on the site and we'll have that plan in the fall.
- Q: Ryan Murray: There is a millennia of nutrient rich soil in that area. What happens to that soil?
- A: Dave Hunter: There is consideration to move it elsewhere if the area flooded. It depends on the cost, but that's been discussed as a potential mitigation measure. We'll be working with agriculture owners on that.
- Q: Ryan Murray: We talk about dams as clean forms of energy. But when you flood an area with a lot of biological activity and you have a lot of organic matter, you will emit methane. There's a real poisoning aspect and that concerns me. Lately, there's more and more talk among environmentalists about methane, which is far more of a greenhouse gas threat than carbon dioxide. Williston was not cleared out. As a consequence, the green dam project is producing lots of greenhouse gases over its entire life. When you're talking about avoiding greenhouse gases when moving to electricity from fossil fuels, how does methane and biological matter fit into your equation?
- A: Dave Hunter: It's a consideration in the environmental assessment and we have to account for that. Even on the work sites, we have to account for emissions from trucks. Ultimately, for the life of the project, we clear timber, which is a net carbon sink and we have to account for a reservoir being in

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place. Right now we're working on that and those will be considerations in the environmental assessment. Looking at other energy sources such as natural gas, there's emissions associated with that over the long run. For a reservoir environment, there is a net loss of vegetation which is a carbon sink, but I can't quote a number.

- C: Dave Conway: The region isn't a net carbon sink, it's actually a net emitter for carbon. That's due to the agricultural activities occurring. We've done an initial study. For northern-based reservoirs, in the initial years after flooding, there are higher levels of methane produced. Over the long haul, they are relatively smaller methane emitters. The range that it would be in once the reservoir is filled would put it beside other options like wind and micro hydro generation, which doesn't have that large head pond behind it. It would be well ahead of fossil fuel generation. Once the reservoir is stable after the first few years, it would be a small emitter again. It's not a net carbon sink right now.
- C: Ryan Murray: That's a real interesting fact.
- C: Dave Conway: It's on our website and we can get you that.
- Q: Barry Elliott: How much Agricultural Land Reserve are you losing?
- A: Dave Hunter: We don't have that but we could get it to you.
- Q: Ryan Murray: As a percentage of all the agricultural land in BC, could you compare it?
- A: Dave Hunter: From Stage 2, we would have 300 ha of class 1-4 land that would be inundated. Those numbers are currently being updated and we will bring that out in the fall.
- C: Dave Conway: When you consider the entire Peace River Valley all the way to the Alberta border, it's about 18% of agricultural land base. What we don't often hear is that there is land not impacted by the project. Yes, it does impact the land, but there's still a significant amount of land left in the region. When the BCUC reviewed the project in 1983, it found that there would still be a viable agriculture base in the valley as a result of the land not impacted.

Dave Hunter reviewed the proposals for recreation sites and public safety and use of the proposed reservoir during construction and operations.

- Q: Bev Fournier: I don't know who the River Rats are, but did you take into consideration the impact of the jet boats that go up the river and do the damage to the banks?
- A: Dave Hunter: The River Rats are a large river boat group with about 300 members. That the first I've heard of potential impacts from jet boating.
- C: Bev Fournier: I come from a place where they have jet boats going up the rivers and their wakes do a lot of damage to wear away the banks.
- C: Dave Hunter: The funding we're providing will help them build new sites. They'll have to work with the province to locate these new sites and the province will decide on the location.
- C: Dave Conway: That's a good comment. I've been with BC Hydro for 12 years and I've never had that point raised that's excellent. A note to remember, compared to other rivers, we move water significantly through our operation, which has quite a significant effect on the banks. Our minimum flow is 10,000 cubic feet per second. It can go down significantly in a day. It can have quite an effect, but we've never separated it out.

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- Q: Ryan Murray: Speaking of rise and fall of reservoir. At Williston, those shorelines are not natural. The shoreline is quite ugly. I have two concerns: although it's a reservoir, it's not the bulk of storage. How significant will the rise and fall be and what is the shoreline going to look like? Is it a place you want to go boating, camping and swimming? Will it look like Williston?
- A: Duane Anderson: Williston has a 55 foot operating range and there's lots of silt and sand that is prone to erosion. You'll have seasonal fluctuation throughout that whole range. If you go up before the summer, you'll have large portions of the beaches exposed. Site C has a 6 foot maximum operating range. It's acting like a run of river facility for the discharges from Bennett and Peace Canyon. The daily fluctuation is expected to be one foot, so it'll be a very stable reservoir.
- C: Dave Conway: It would be BC Hydro's most stable reservoir.
- C: Duane Anderson: It'll be a different picture compared to Williston. There will still be shoreline issues in a first few years. Our expectation is that it'll be a much more recreational-friendly reservoir.
- Q: Ryan Murray: In terms of flow of current, that section of the Peace River has a pretty fast current. You have to have a pretty fast engine in our boat to go upstream. What you're proposing, will it really slow down the current to go sailing or canoeing?
- A: Duane Anderson: It'd be more comparable to Dinosaur Reservoir where you don't see many currents. You'd only see the outflow once you get close to Peace Canyon.
- C: Simon Douglas: The velocity of the current there would be significantly different in a reservoir compared to a river. The flow may not change, but you have a lot more area for the flow to operate in. That drops the velocity significantly.

Duane Anderson reviewed 85<sup>th</sup> Avenue Industrial Lands and the multi-use of this site for the Site C project.

- Q: Scott LaPrairie: I came a bit late so this may have been answered. What's the procurement? Will BC Hydro be the contractor? A lot of these projects have been proposed in these communities and we hear about the benefits to local people, but when it gets approved that seems to change and the benefits don't come to the local people. They get all the environmental risk I don't see one but we don't get the economic benefits. Can you address that?
- A: Dave Conway: There has been no procurement model yet. We may do initial procurements as early as December or early 2013 for some of the more major components. This region is a highly employed. Local, regional and provincial businesses are looking for opportunities and we're looking for economic flow through.
- Q: Scott LaPrairie: Will BC Hydro be project manager or would it go someone like a Kiewit to be the EPCM (Engineering, Procurement and Construction Management)? Corporately, you or West Coast Energy said they would do something, and then pass it down to an engineering firm responsible for the construction, and they're responsible for your mandate and policies locally, but that's where it falls down.
- A: Simon Douglas: That's part of discussion around procurement does it go conventional design-build, P3? All those discussions are happening now. I can't tell you where we're going to land.

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- C: Dave Conway: We did business information session in the fall and we'll be doing more of those in the future.
- Q: Rich McCrea: Regarding the paleontology assessment, I spoke with the person conducting the assessment. The location of the dam itself is close to bedrock in the Dunvegan formation. Is there any mitigation plans during construction, are there going to be opportunities for recovery and monitoring of that type of material. It happened in the 1960s during Bennett construction where the Royal Ontario Museum sent a team to take specimens. Will something like that be in place for this project?
- A: Dave Hunter: As part of the environmental assessment, we're doing baseline studies to have mitigation in place for consideration. I can't say what the exact mitigation will be.
- Q: Dave Conway: Rich, it's my understanding you're working with our paleontology group?
- A: Rich McCrea: No. It was that one time. Like a check mark to talk to me.
- C: Dave Conway: That's not my understanding and we should clarify that.
- C: Rich McCrea: We don't want to have any part of the consulting part, but we're quite knowledgeable in these areas would want to be kept in the loop.
- C: Simon Douglas: I encourage you to come forward with that information. Specifically, at the dam site, you mentioned the bedrock and sandstone formation, but much of the Peace Valley and dam site is more in the Shaftsbury Shales.
- C: Rich McCrea: Yes, it's very close to Fort St. John and I couldn't tell from this map. At Fort St. John, it does transition to Dunvegan. If you're excavating Shaftbury, you'll likely hit the top of Dunvegan.
- C: Simon Douglas: We know it's intermittently sparse there, but you've got a wealth of knowledge and we'd like to tap into that.
- C: Rich McCrea: Absolutely.

Dave Conway wrapped up the meeting and encouraged participants to complete the feedback form and asked participants to encourage friends and others to participate.

The record notes that the meeting ended at 12:00 p.m.

MEETING DETAILS	BC Hydro Site C Clean Energy Project
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LOCAL GOVERNMENT	Hudson's Hope – Local Government Meeting
MEETING	April 25, 2012, 3:30 p.m. – 5:30 p.m.
	Hudson's Hope Community Hall
	9904 Dudley Drive
	Hudson's Hope, B.C.

PURPOSE	Notes from a local government meeting for the BC Hydro Site C Clean Energy Project held on April 25, 2012 at Hudson's Hope Community Hall, Hudson's Hope, B.C.
FACILITATOR	Nancy Spooner, Kirk & Co. Consulting Ltd.
	Dave Heiberg, Councillor, District of Hudson's Hope
	John Locher, CAO, District of Hudson's Hope
ATTENDEES	Kelly Miller, Councillor, District of Hudson's Hope
	Darryl Johnson, Councillor, District of Hudson's Hope
	Dave Conway, BC Hydro
	Simon Douglas, Site C Project Team
SITE C PROJECT	Alex Izett, Site C Project Team
TEAM ATTENDEES	Dave Hunter, BC Hydro
	Judy Reynier, BC Hydro
	Tim Lai, Kirk & Co. Consulting Ltd., Meeting Recorder

### **KEY THEMES**

### **Outdoor Recreation**

• Participants were interested in recreation opportunities. In particular, access to the shoreline for camping, fishing and boating were requested.

### Workforce

Participants were interested in the location of workers and worker accommodations in the region.

### Highway 29

• The realignment of Highway 29, particularly the maintenance of safe, timely travel, was of interest to all participants.

The record notes that the meeting was called to order at 3:30 pm.

### **DISCUSSION**

(Abbreviations will be used and mean – Q: Question, A: Answer, C: Comment)

1. Welcome and Introductions – Nancy Spooner

Nancy Spooner welcomed participants to the local government meeting, explained the format of the meeting and introduced the Discussion Guide and Feedback Form. Nancy informed participants that the meeting was being recorded for accuracy. Roundtable introductions followed.

### 2. Review of Consultation Discussion Guide and Questions and Answers - All

Dave Conway reviewed the introduction to the Discussion Guide, including ways to participate in the consultation and the schedule of open houses and the list of information items and consultation topics.

Dave Conway reviewed BC Hydro's energy planning, design of Site C and key project benefits.

- Q: Dave Heiberg: Just to clarify, the environmental process is anticipated to be three years for completion?
- A: Dave Conway: Yes, about three years, that's what the regulators told us.
- Q: Dave Heiberg: You're about six months into it?
- A: Dave Conway: Yes, the first advisory working group meeting was conducted by the regulators with local and regional government, First Nations and agencies, back in October. That was when the draft agreement was provided to everybody for their input. The agreement was approved and it came out in February. We're about six months in.
- Q: Dave Heiberg: Do you feel that things are going according to schedule as far as process is concerned?
- A: Dave Conway: Yes, I think so, but you'd have to ask the regulators.

Simon Douglas provided information regarding transmission update.

- Q: Darryl Johnson: Are there possible plans to develop a major road beside the transmission line?
- A: Alex Izett: We've been looking into access road on the south bank of the Peace River to Site C. We've looked at utilizing the existing roads in there. We've looked at utilizing the road needed to build the new transmission lines as a temporary road into Site C. We're not looking at making that permanent. There's no decision as to whether that road would be permanent or temporary.
- Q: Darryl Johnson: So that would come in here, through to Site 1?
- A: Alex Izett: It would come up the existing Jackfish Lake Road to Del Rio. If we were to construct a new road along the new transmission line, we'd start at that point.
- Q: Darryl Johnson: Would you keep Jackfish as a major access point?
- A: Alex Izett: Yes, at least from Chetwynd into Del Rio.

Dave Hunter provided information on planning underway regarding worker accommodation and mentioned that worker accommodation will be a consultation topic in the fall 2012 consultation.

- Q: Darryl Johnson: Do you have estimates of workers per area? For example, how many would live in Hudson's Hope and how many would be near the Halfway?
- A: Simon Douglas: I can comment on the dam site, we are at that level of granularity, but in terms of work away from the dam site, like highways or transmission, I can't.

- A: Alex Izett: We have been making order of magnitude estimates, but we don't know the construction schedule yet.
- C: Dave Hunter: The one point in here is that on average, we're looking at an average of 900-1,000 workers per year, with the majority being in the middle.
- Q: Dave Heiberg: Will the bulk of workers be in temporary camp sites?
- A: Dave Hunter: Yes, that would be the case, but community housing would be used in select areas.
- Q: Dave Heiberg: And that would be located near the dam site?
- A: Simon Douglas: The worker camps would be near the dam site. You'd probably have one on the north bank and one on the south bank right at the dam site. Exact specifications of their size, make up, when they come online, and how you expand to meet the workforce in one particular year, that still needs to be worked out.
- Q: Dave Hunter: Dave, are you asking about in-community housing?
- Q: Dave Heiberg: I'm thinking about the population that'll be working at the principle site. You're thinking that most of the people will be housed in camps there. Do you have any maps of those locations?
- A: Dave Conway: Not yet, but that's the type of information we're coming back with in the fall when we can talk about this in detail. Conceptually, we're thinking about a north bank camp with 500 people and about 1,000-1,200 in a south bank camp. We've been asked about why not one camp as opposed to two. We're looking into that conceptually right now. We're also looking at a number of in-town workers. Ballpark, it could be about 10% that could be reasonably located into communities.
- Q: Darryl Johnson: For Hudson's Hope, the concern is with clearing, logging and berm construction. Then there is the logging and the salvaging of the wood. Would you be using local mills and contractors for the logging and debris clean up?
- A: Dave Hunter: Clearing will be part of the fall consultation. Based on the timber that is harvested, that would go to the local market. While I can't anticipate the economic future, we are looking at the impact of what the merchantable timber would have on the local economy.
- Q: Dave Heiberg: The plan is to remove all vegetation and timber?
- A: Dave Hunter: Right now, we're looking at merchantable timber. We'll present the full plan in the fall.
- Q: Dave Heiberg: So there isn't a lot of resin left?
- A: Dave Hunter: There will be a debris management program in place and that'll be a component of the clearing plan.
- C: Dave Conway: The question is to what level do we do it?
- C: Dave Heiberg: We don't want a mess. You have to make sure it's not a mess.
- C: Dave Conway: Also, once you take the merchantable timber out, what could be done with the remaining wood waste and how would you dispose of it biomass generation or do you burn it? Would you clear down to stump, how far up the banks do you go?

- C: Dave Heiberg: If we're using the reservoir for recreation, you don't want stumps for boats in the reservoir or on the shoreline. It's a major concern. It's better to do a good job in the clearing before, than after.
- C: Dave Hunter: Absolutely, making sure there's not snags and dead heads sticking up and shoreline areas being clear.

Simon Douglas provided an overview of the preliminary impact lines and land use around the proposed reservoir and reviewed the four impact lines and proposed shoreline protection at Hudson's Hope.

- Q: Darryl Johnson: In some areas, you know you're going to get some sloughing. Have you considered any mechanical reduction of the banks to end up with less erosion than if you left it to nature?
- A: Simon Douglas: About 50% of the shoreline that the reservoir would be in contact with is bed rock and about 35% would be in contact with gravels and sands, so about 85 per cent of the shoreline would not be in contact with erodible materials. About 15% would be in contact with the sands and silts. You can't really have local setbacks, you'd have to buttress it, like the Hudson's Hope berm. Depending on where it is in the berm, it could be very big and expensive.
- Q: Dave Heiberg: Would you consider more protection in areas across that could slough like Lynx Creek? If a wave was going to come across, perhaps there was more reinforcement.
- A: Simon Douglas: One of our big objectives is ensuring public safety. You could put rip rap for protection or a breakwater to prevent erosion. We would ensure there no residences and people in those areas to ensure public safety.
- Q: *John Locher*: Going upstream of Zone B shows the reservoir and you show a berm is not required there, are those houses impacted by the impact lines?
- A: *Judy Reynier*: Yes, they are.
- Q: John Locher: Would a berm at that location change that?
- A: Simon Douglas: Based on my understanding of the work that's taking place there, no. With the shale materials, it's not expected to erode. There could be existing stability issues there. A berm or impact lines wouldn't prevent any erosion.
- Q: John Locher: Are there any houses in the stability line that needs to be removed or relocated?
- A: Judy Reynier: There are a few. There are approximately 10 or 11 houses in the area you're talking about between that and the dam. Most of them will be able to stay. The stability impact line is in much the same position as the natural safe line today. There may be 1 or 2 houses where we'll do additional geotechnical testing.
- Q: *Kelly Miller*: When will that testing be?
- A: *Judy Reynier*: That would happen when and if we have an approved project and we go and do the acquisition of the rights.
- Q: Darryl Johnson: You said the berm would be 11 metres from the base of the current river. So it's the bottom of the river or the river elevation?
- A: Simon Douglas: I believe it's the bottom of the river but I'd have to check.
- C: Darryl Johnson: Please do. That would make sense as there are a few metres of water there.

- C: John Locher: That was one of the questions asked a previous meeting how high the water level rises at Hudson's Hope. I think the answer was the depth of the reservoir, but if you don't know the depth of the river, it doesn't help.
- C: Simon Douglas: The water level rise in the area is about 9 metres compared to the existing river level. You'd have about a 1.5 2 metres of berm exposed over the maximum level of the reservoir.

Alex Izett introduced the overview of Highway 29 preferred realignments and reviewed the preferred realignments or corridors in the six segments.

- C: John Locher: I just wanted to note that if BC Hydro could include Hudson's Hope district boundaries in future maps that would be appreciated.
- C: Dave Conway: Yes, we have that comment and we will do that in the future, but you caught us too late this time.
- Q: John Locher: If you look at Lynx Creek, currently speeds are reduced to 40 km/hour there, it would change to be a 90 km/hour standard. That puts you to the hill at Lynx Creek, where trucks can only do 20 km/hour. That's already an unsafe situation and this will compound it. The same thing happens at Cache Creek. Is the Ministry of Transportation involved in discussions to improve those sections at Lynx and Cache Creek? I'm wondering how far those questions have progressed?
- A: Alex Izett: The Ministry of Transportation is aware of those concerns but it is outside the immediate scope of the realignment. We don't anticipate a loss in efficiency around the Lynx Creek hill. The preferred alignment is about 15-20 metres higher than the current levels so trucks wouldn't be coming out of a lower valley. The Ministry will be monitoring, but it's not presently part of BC Hydro's project.
- C: John Locher: That's where the trucks speeds are 20 km/hour.
- Q: Dave Heiberg: Where would you start the realignments?
- A: Alex Izett: We don't have a construction schedule confirmed. Because of the initial work at the coffer dams, the Cache Creek section would need to be done first. The Halfway to Lynx Creek section would have a lower priority. We have more time on that section. We estimate it would take 2-3 years per segment to build.
- C: Darryl Johnson: On page 19, it's the first time I've noticed an island near Watson Slough. That's quite a sizable island. I've often looked at that and thought it would be above flood level.
- C: Dave Hunter: I believe there would be two islands in the reservoir once it's completed.
- Q: Dave Heiberg: So the existing length of the road from here is 75 kilometres to Mile 54. I see about 30 kilometres of realignments, but will it be the same distance and travel time because a lot of our residents do business in Fort St. John. Maintaining an efficient road is very important to us.
- A: Alex Izett: There will be some modest time savings. People think they'll be saving minutes, but it'll be seconds. There will be additional passing opportunities with broken yellow lines.
- C: Darryl Johnson: Safety is very important.

C: Dave Heiberg: Yes, safety is very important, especially in the Farrell section.

Dave Hunter reviewed the proposals for recreation sites and public safety and use of the proposed reservoir during construction and operations.

- C: Dave Hunter: I know John has been interested in house boats. In terms of house boats, we would have to work with Alex's team to determine whether house boats could fit under bridges and abatements.
- C: Dave Heiberg: You want those areas where the house boats could park overnight.
- Q: Dave Heiberg: How accessible can you see the shoreline being? For example, if a canoeist were to go up and down, would the shoreline be accessible for a 2-3 day camping trip?
- A: *Dave Hunter*: Absolutely.
- C: Dave Heiberg: Other than jet boats, it'd be nice to get non-motorized boats on there, as well as fly fisherman on there too.
- C: Dave Conway: But to clarify, there's no determination of the north side and our land use and ownership. Some are privately held. We don't know yet what the access will be on the north bank beyond what Dave has discussed. He was talking about access on the south bank.
- C: Dave Heiberg: I understand that. I'm thinking about places where families could do day trips, are in houseboats, where people can use picnic tables, an outhouse, a place to have campfires. It'd be great to have some clear sites for camping and canoes.
- C: Dave Hunter: Access will be provided, but it'll depend on land ownership.
- C: Dave Heiberg: Your lands would be very easy to deal with.
- C: Dave Hunter: It could be easy with Crown land which is much of the south bank.
- C: Dave Conway: To put into perspective, BC Hydro has about 12% of the land and Crown land is about 81% of the land, so between us and crown, we have 93% of land impacted by the reservoir. I encourage you to make those comments during the Environmental Impact Statement Guideline open houses.
- Q: *Kelly Miller*: You were referencing Cache Creek areas for possible expansion for access, could you expand at Lynx Creek as well?
- A: Dave Hunter: The Hydro properties are long, so yes, both sites could be expanded and have opportunities for camping.
- C: Darryl Johnson: I have to give your artist a compliment here. He even has the fellow backing up on the double ramp down the middle which is what happens most of the time. Let's hope it looks like this. If it looks like the ferry launch, it'll be great.
- C: Dave Heiberg: I like the trail concept and interpretative signage as well.
- Q: Dave Heiberg: How long will it take to fill the reservoir to capacity?

MEETING DETAILS	BC Hydro Site C Clean Energy Project
	Project Definition Consultation, Spring 2012
LOCAL GOVERNMENT	Hudson's Hope – Local Government Meeting
MEETING	April 25, 2012, 3:30 p.m. – 5:30 p.m.
	Hudson's Hope Community Hall
	9904 Dudley Drive
	Hudson's Hope, B.C.

- A: Simon Douglas: It won't take that long at all probably 6-8 weeks. It depends on what we see and we'll be doing ongoing monitoring. It could be raised, then we monitor. If there are any issues, we can hold the reservoir to monitor.
- Q: Dave Heiberg: Bring it up a bit, watch it, bring it some more?
- A: Simon Douglas: Yes, see how the dam is doing with the load. We'd probably bring it up in two to three lifts.
- C: Dave Conway: We would include a reservoir filling plan.
- Q: Kelly Miller: Would it be natural flow? Or would you open up the big dam to increase the flow?
- A: Alex Izett: The plan would have to consider the operations at Peace Canyon. That would be the primary flow into the reservoir, as well as other tributaries.
- C: Dave Conway: It would depend on the tributaries. Last year, we had more water coming from the Halfway River than the Bennett Dam.

Alex Izett reviewed 85<sup>th</sup> Avenue Industrial Lands and the multi-use of this site for the Site C project.

- Q: Dave Heiberg: Will you excavate it directly?
- A: Alex Izett: Because it's layered on an angle, we could strip out layers by the foot as the site escalates. We would flatten the slope. It's a huge advantage as we would not excavate a huge quarry. It wouldn't leave a huge scar on the site and we wouldn't have to back fill it.
- Q: Dave Heiberg: Is this land inside Peace River Regional District?
- A: Judy Reynier: Yes it is.
- Q: Darryl Johnson: I was at a coal mine presentation recently and how they were using conveyor belts. They were generating power with conveyor belt going downhill. This I take doesn't lose much altitude?
- A: Alex Izett: It's fairly flat here. That's why we have to stop where we do because it gets really steep. There's a 200-300 metre drop.
- Q: Dave Heiberg: You'll come back in the fall with more detailed plans on environment, recreation? What's the timeline?
- A: Dave Conway: The plan for the next BC Hydro-led project definition consultation is in September, early October. The dates haven't been set yet. We'll be talking about agriculture, worker housing, access roads and the clearing plan.
- Q: Dave Heiberg: We can expect a visit to get more detail about that?
- A: Dave Conway: Absolutely. And remember, there are environmental assessment open houses next week. We will file our Environmental Impact Statement in early 2013. There are lots of opportunities for consultation between what we're doing and what the regulators are doing.

Dave Conway wrapped up the meeting and encouraged participants to complete the feedback form and to encourage friends and others to participate.

The record notes that the meeting ended at 5:15 p.m.

MEETING DETAILS	BC Hydro Site C Clean Energy Project
	Project Definition Consultation, Spring 2012
LOCAL GOVERNMENT	Chetwynd – Local Government Meeting
MEETING	April 26, 2012, 9:00 a.m. – 11:00 a.m.
	Pomeroy Inn & Suited – Banquet Room 2
	5200 North Access Road
	Chetwynd, B.C.

PURPOSE	Notes from a local government meeting for the BC Hydro Site C Clean Energy Project held with local government representatives and representatives of the Site C Project on April 26, 2012 at Pomeroy Inn & Suites, Chetwynd, B.C.
FACILITATOR	Nancy Spooner, Kirk & Co. Consulting Ltd.
ATTENDEES	Ernest Pfanner, Councillor, District of Chetwynd Doug Fleming, District of Chetwynd Merlin Nichols, Mayor, District of Chetwynd Elaine Davis, Economic Development Assistant, District of Chetwynd Ellen Calliou, Economic Development Officer, District of Chetwynd Don Harris, Councillor, District of Chetwynd Bob Nicholson, Councillor, District of Chetwynd
SITE C PROJECT TEAM ATTENDEES	Dave Conway, BC Hydro Alex Izett, Site C Project Team Duane Anderson, BC Hydro Simon Douglas, Site C Project Team Dave Hunter, BC Hydro James Thomas, BC Hydro Tim Lai, Kirk & Co. Consulting Ltd., Meeting Recorder

### **KEY THEMES**

### **Energy Planning**

• Local government participants wanted a better understanding of the demand for power, the amount that is needed in B.C., and the amount that will be sold.

### **Access Roads**

• Several participants had questions about construction access roads, particularly on the south bank of the Peace River.

### **Outdoor Recreation**

• Local government participants expressed a desire for recreation access from the south bank of the Peace River.

### **Community Benefits**

Participants expressed a strong desire for a legacy facility or facilities that could enhance the
outdoor recreation opportunities on the reservoir, particularly on the south side, and for a
commitment from BC Hydro to monitor debris to ensure safety.

The record notes that the meeting was called to order at 9:00 a.m.

### **DISCUSSION**

(Abbreviations will be used and mean – Q: Question, A: Answer, C: Comment)

### 1. Welcome and Introductions – Nancy Spooner

Nancy Spooner welcomed participants to the local government meeting, explained the format of the meeting and introduced the Discussion Guide and Feedback Form. Nancy informed participants that the meeting was being recorded for accuracy. Roundtable introductions followed.

### 2. Review of Discussion Guide and Questions and Answers - All

Dave Conway reviewed the introduction to the Discussion Guide, including ways to participate in the consultation and the schedule of open houses and the list of information items and consultation topics.

Dave Conway reviewed BC Hydro's energy planning, design of Site C and key project benefits.

- Q: Ellen Calliou: What is the region you're talking about?
- A: Dave Conway: It's the whole integrated provincial network, so the northern most portion would be the distribution lines that expand beyond Fort St. John about 150 kilometres north all the way out to Prince Rupert and the Lower Mainland. We serve about 97% of the population in the province. Fortis supplies the Okanagan and the west Kootenays, but we supply the rest of the province. It's about 1.89 million customers.
- Q: Doug Fleming: What is the cost of generation with the current dams system?
- A: Dave Conway: Our cost for Bennett, which is now about 50 years old, is \$15 per megawatt hour (/MWh), plus the overhead to transmit and distribute, plus staff, which is about \$25/MWh. That was considered expensive back then, but it's considered cheap now.
- Q: Merlin Nichols: What's the capital debt over its lifetime and amortization period?
- A: Dave Conway: I don't know. We have calculated the borrowing rate to be 5-6%. The \$87/MWh cost is the 5% rate and the \$95/MWh is the 6% rate. That's why you have the range.
- Q: Ernest Pfanner: What percentage of the power stays in BC and what gets exported?
- A: Dave Conway: That's a good but complicated question. I'm going to simplify this. From November to February, the vast majority of power stays in BC. It all gets used, that's our peak load period. We are going to market during that period to buy power at high price. At times during that period, we do have some surplus and if we can, we will sell it at a high price to Alberta or the US. We will optimize it to buy low and sell high. Most times we're at peak.
- Q: Ernest Pfanner: I remember the story of California not paying us.

- A: Dave Conway: What you're referencing is the 2000-2001 energy crisis in the US where the average price was \$250/ MWh. If I remember correctly, the peak was \$2,000/ MWh. We stopped sales to California because they weren't paying. It was about \$400 million CDN at the time. We wrote off that our books that fiscal year and we still made a \$1 billion net in sales. We are still pursuing getting that \$400 million back, so California is try to get rebates. The regulator in the US is saying that BC Hydro did nothing wrong, but we are in ligation with them. Despite all of this, we are still selling to California and we continue to sell during the period but we shortened the borrowing time. There was no month-to-month credit, it was cash on the barrelhead. To put it in perspective, we were only meeting 5% of what they needed at the time. We made a lot of money that year and that helps to keep your rates down by about \$100 per person.
- Q: Don Harris: That's the biggest question the public puts to us do we need the power, does the power stay in BC or is BC Hydro just selling it? Why ruin that land when we don't really need this power. Lots of people think that only a small percentage is staying here and the rest is going into BC Hydro's pockets.
- A: Dave Conway: If we had Site C we could use the power today. What complicates this is that people don't understand how you could have a shortage and need it, but still be able to sell it. That's the nature of the product because if we you produce it, you have to use it. We have to build to peak load because it would be one day in the year you have to meet. We can't meet that. Right now, where the load has dropped off and we have lots of water again, we sell into the market into the U.S. in June-September when they're using air conditioners. We can optimize the system and make money doing that. We have a surplus then, but not in the winter time. We're building for the winter time.
- C: Don Harris: They're wondering if it's worth it for money to lose that beautiful land. That's one of the most gorgeous places in this country.
- Q: *Merlin Nichols:* So the project is the B.C. government, managed by BC Hydro, how is that really different? BC Hydro is a Crown and revenue exceeding operational costs go back to the government?
- A: Dave Conway: Yes, they do, through a dividend. What also goes back to them is the funds generated from the water we use we are charged a water rate.
- Q: Merlin Nichols: Is this relationship different from one with the W.A.C. Bennett Dam?
- A: Dave Conway: No, it's the same. It would be a heritage asset.
- Q: Ernest Pfanner: A while ago, did BC Hydro sell part of its transmission? How did that pan out? Could these dams be sold?
- A: Dave Conway: We're called an integrated utility we do generation, transmission and distribution. Back in 2002, the government built the British Columbia Transmission Corporation (BCTC) and became system operator. It was done at the time to maintain our ability to trade into U.S. because the regulator in the U.S. wanted a separation between generator and transmitter. It felt that the generator had a bias over the use of the transmission line. We needed to do that to keep our

trading license. BC Hydro and BCTC were amalgamated last year because that requirement wasn't there anymore and it didn't make sense for us to maintain a separate company.

- Q: *Ernest Pfanner:* At times BC Hydro is buying power, but when it is selling power, what percentage is going to the United States?
- A: Dave Conway: It depends on the need.
- Q: Ernest Pfanner: What's the worst case scenario? At the worst, we're selling, but what the best case for you? What's the export?
- Q: Dave Conway: No idea. Most of it is spot market. It really depends on what the need is. We could have a generator go down in the U.S. and all of sudden you're 150 MWh short. It fluctuates on the daily basis. It also depends on temperature.
- Q: *Ernest Pfanner:* There's got to be some number somewhere that says worst-case scenario or the very best for BC Hydro is that we sell on X day is 20% or 10% or 80%.
- A: Dave Conway: In GWh, we could get you that number and it varies from year-to-year.
- C: Ernest Pfanner: It's an important number. I'm surprised you don't have it. I would've thought BC Hydro would've been asked that many times.
- C: Duane Anderson: BC Hydro has been net importer for last nine of ten years. In the Pacific Northwest, they have a lot of thermal plants, which, in simplistic terms are on or off. When demand goes down, they have power and need somewhere to put it. We take that power from them for very cheap prices and are even paid to take that energy. We then use Williston as a battery. We shut off our hydroelectric assets, fill the water up so it's there when we really need it the most. It gets real complicated because we go back and forth across the border. The advantages of hydroelectric power allow us to get ahead in this game of back and forth. Hydroelectric power can be turned on and off rather quickly and regulated. Other forms of energy don't have that ability. That's the trading philosophy of BC Hydro. Others have more constraints than we do and we use that to our advantage to keep rates down.
- C: Dave Conway: The thing about electricity as a commodity is that when you produce it, you have to use it. You can't store it to be used later. Remember that blackout in the eastern seaboard a few years ago? It sent a large chuck of energy to a destination that did not take it. As a result, the protection controls were enacted and shut the whole system down. Those thermal plants, they like to run them at peak and not move them up and down. They have to have a place for it to go so we take it. Wind farms in Washington, they produce energy and in off-peak hours, they don't have a load and they don't have a place to put it, so we're being paid to take it. We're not only backing off our own generation, we were paid \$7 per MWh to take it. I don't want to complicate the issue. The issue is that we have a domestic load in the winter time, we cannot meet it and we need to fill the gap. To do that we have to find the resource to do it, but trade muddies the issue.

Simon Douglas provided information regarding transmission update.

- Q: Doug Fleming: Would you install one set of 500s, decommission the other set of 138s, and then install other 500?
- A: Simon Douglas: Yes, that's how we would do it.

MEETING DETAILS	BC Hydro Site C Clean Energy Project
	Project Definition Consultation, Spring 2012
LOCAL GOVERNMENT	Chetwynd – Local Government Meeting
MEETING	April 26, 2012, 9:00 a.m. – 11:00 a.m.
	Pomeroy Inn & Suited – Banquet Room 2
	5200 North Access Road
	Chetwynd, B.C.

- Q: *Merlin Nichols:* I have a question about the extension from Peace Canyon south. There will have to be a widening of the right-of-way there, south to Vancouver?
- A: Simon Douglas: No. There is plenty of capacity to carry load. The only new transmission corridor needed is the one I just described between Site C and Peace Canyon.
- C: Dave Conway: We are currently studying the system, and we do studies on an ongoing basis to make sure that's the case. If that weren't the case, we have the ability to reinsulate those 500 lines going south and reconductoring them. Simon's comment is correct, but we are studying them.

Dave Hunter provided information on planning underway regarding worker accommodation and mentioned that worker accommodation will be a consultation topic in the fall 2012 consultation.

- Q: Don Harris: The 900-1,000 workers you reference, are those labourers and contractors?
- A: Dave Hunter: That's a mix of workers.
- Q: Don Harris: So out of that number, about half would be labourers?
- A: Simon Douglas: I'd say more than that, but I don't have full break down. Contractors would have labourers, skilled workers, foreman, management, but labourers would be biggest number.
- Q: Don Harris: So once you finish, you'll need about 25 to manage the yearly?
- A: Alex Izett: Yes, that's about right.
- C: Dave Conway: Peace Canyon would be a good comparison and we have about 30 staff at that facility.
- Q: Don Harris: So of the 900-1,000, about 500-600 would live in camps?
- A: Simon Douglas: The 900-1,000 is an average over the seven years. The actual workforce would peak in the middle years. It will take various activities to get underway. It would start with around 700, and then peak to about 1,500 in the middle.
- Q: Don Harris: So it'll help Hudson's Hope immensely over those seven years because they're pretty dead right now?
- A: Simon Douglas: There will be many regional benefits all around.
- C: Don Harris: Well, half would be in Hudson's Hope and half would be in Fort St. John.
- C: Simon Douglas: There's also the highway realignment that'll happen between Cache Creek and Hudson's Hopes, so lots of work there.
- Q: Ellen Calliou: You mention a full-service camp those would be dependent on where the camps would be in vicinity to each of the community, right? You'd consider access to community before you determine whether it's a full-service camp?
- A: Dave Hunter: Yes, if the camp is closer to Fort St. John, there would be much easier access than in the Del Rio area.

Simon Douglas provided an overview of the preliminary impact lines and land use around the proposed reservoir, and reviewed the four impact lines and proposed shoreline protection at Hudson's Hope.

- Q: Doug Fleming: What is the typical rise and fall of the reservoir in a 24-hour basis?
- A: Simon Douglas: The maximum defined would be 6 feet, but it would be about a foot in a typical day.
- Q: Doug Fleming: If the land does erode to the impact line, would BC Hydro purchase that land?
- A: James Thomas: The statutory right-of-way and compensation that would be paid would permit those processes to occur. It would be based on the current market value at the time of the acquisition.
- Q: Doug Fleming: Do you have to purchase land in Hudson's Hope to facilitate the construction of the berm?
- A: James Thomas: The footprint of the berm would be in Crown land or the river. It's basically at the bottom of the existing cliffs. The exact mechanism to acquire those rights hasn't been determined. It would be a statutory right of way.
- Q: Doug Fleming: So no acquisition of land but the acquisition of right of way?
- A: James Thomas: We haven't defined a plan.
- C: Simon Douglas: There's ongoing consultation with property owners in Hudson's Hope.
- Q: Ernest Pfanner: What's the water level going to change at Hudson's Hope?
- A: Simon Douglas: It's about nine metres.

Alex Izett introduced the overview of Highway 29 preferred realignments and reviewed the preferred realignments or corridors in the six segments.

- C: Don Harris: You're straightening the road near Farrell quite a bit.
- C: Alex Izett: Yes we are. It'll be about 100 feet in the air and there will be enhanced safety for motorists.
- Q: Doug Fleming: What's the time savings from Fort St. John to Hudson's Hope?
- A: Alex Izett: It's about two minutes from Hudson's Hope to Cache Creek, travelling at 90 km/hour.
- Q: Merlin Nichols: What the cost per minute for doing this?
- C: All: Laugh.
- Q: Ellen Calliou: With all that industry on that road, will you widen the road to improve shoulder access because it can get very narrow in there?
- A: Alex Izett: It'll be a two-lane highway with a 1.5 metre shoulder, which is the Ministry of Transportation standard for this classification of highway. We haven't done a detailed survey, but the shoulder is generally less than a metre.
- Q: Ellen Calliou: It's very narrow there and this should be considered.
- Q: *Merlin Nichols:* How high is the causeway at the Halfway?

- A: Alex Izett: It would be 40 metres. All material for that causeway would come from the future inundated area in the Halfway River.
- C: Don Harris: That's an expensive area because that'll be the third bridge there.
- Q: Ernest Pfanner: What's the timeline of building these roads? Would it be pre-dam, post-dam?
- A: Alex Izett: None of these would take place before environmental certification. It might start in year 1 if certification is obtained. The construction of the initial dam may cause some flooding in the Cache Creek/Bear Flat area, so that section would be a priority. The remaining segments would fall into the seven-year critical path.
- Q: Ernest Pfanner: Regarding Jackfish Road, would equipment go on that road?
- A: Alex Izett: We are looking at construction access roads on the south bank around the proposed Site C location. Access roads information will be part of fall consultation. We are looking at options to bring in labour, material from Jackfish Lake Road at Del Rio. We then go along the existing resource roads or using the roads to build the transmission lines.
- Q: Ellen Calliou: Del Rio is narrow now. Would you upgrade those roads?
- A: Alex Izett: If that was to be the road into the south bank, we would have to do improvements to enable two-way access or passing opportunities. In addition to the width, we would have to ensure the integrity of the road. There's no way to haul seven years of materials through there now.
- Q: Merlin Nichols: When do you plan to address rail traffic to bring in material from West Pine?
- A: Alex Izett: We are looking at that as an option to bring in rip rap from West Pine. We are looking at either road or rail. There are benefits and risks with both options, such as just-in-time delivery when using the trucks, the degradation of materials if handled too much, and the cost. Those plans will come out for consultation in the fall.
- C: *Merlin Nichols:* No matter what option, they're coming through town.
- A: Alex Izett: Yes.

Dave Hunter reviewed the proposals for recreation sites and public safety and use of the proposed reservoir during construction and operations.

- Q: Don Harris: Would there be a pump house at the top of the hill in Hudson's Hope?
- A: Dave Conway: The other pump house, that is farther up near the hotel was there, but the district has put up a temporary water treatment facility. If the project goes ahead, BC Hydro would assist in the relocation of the pump house. DA Thomas Road is where they plan to have the permanent water treatment facility.
- Q: Ellen Calliou: Has Hudson's Hope requested the berm area for camping? There really isn't anything close to Hudson's Hope. I know I would want that.
- A: Dave Hunter: There is potential for Lynx Creek which is four to five kilometres away. There is a potential for expansion at that site within BC Hydro-owned land.

- C: Ellen Calliou: The location, by the museum, I could see it being a tourism opportunity, an overnight campground.
- C: Dave Conway: Close by, you start to get close to the residential properties too. We spoke with the District about what the community would like to see and what the residents would like to see. What we heard was they don't want any public access beyond this point near our properties because they're concerned about potential use and fire since the grass can get pretty dry there.
- Q: *Merlin Nichols:* The Halfway River is a popular site for canoe trips, where you can disembark on the shoreline, which will be inundated. Have there been any suggestions to create some trails just above the high water mark to unload canoes there?
- A: Dave Hunter: No, that hasn't been brought up. That's a good idea. I hadn't heard the Halfway was used for canoeing. I knowing jet boating is big in there.
- C: Doug Fleming: On the new boat launches, in Fort St. John, there was discussion about the need to consider expansion for parking in the area. It's not identified in the report and I don't know when the report was printed, but that was a comment that was made.
- C: Dave Hunter: We've heard that as there could be 100 cars could be up there on a busy summer day.
- C: Dave Conway: We've been told for be prepared for increased usage from the recreation groups we've talked to.
- C: Doug Fleming: That report references recreation opportunities on the north, but Chetwynd would like consideration on the south side for access. There are some opportunities on the south side, near the Moberly and viewing sights close to the dam.
- C: Dave Hunter: We'll be presenting clearing plan in the fall and access roads to the south bank could be taken into consideration. At the same time, it's about the same time to get to Lynx Creek when compared to getting to the south side.
- C: Dave Conway: We heard that from District at Regional and Local Government Liaison Committee. I'd suggest council make that formal submission from Council so it's in formal record.
- C: Doug Fleming: Council will have the opportunity to discuss this further at the next meeting on Monday. After this meeting, I imagine our positions will be known. In terms of boating on the south side, I'm thinking more of a kayak on a roof that type of access.
- Q: Doug Fleming: We'll about worker transportation in the fall?
- A: Dave Hunter: Yes, that's tied to worker accommodation that'll be discussed in the fall.
- Q: Doug Fleming: Related to outdoor recreation and the dam, I know the Columbia Basin Trust and BC Hydro set up monitoring committees for continued improvements and the removal of debris. Has this been discussed here, where we will have an ongoing monitoring committee?
- A: Dave Conway: For the Peace region, there's a fish and wildlife compensation program, which has been in place since the late 1980s. It was put in place to compensate for Peace Canyon and Bennett. There was water use planning process that we went through from 2001-2003. Out of that

came a list of commitments. The program is currently being restructured due to a change in governance. We haven't heard of the development of that type of group if Site C proceeds.

- C: Doug Fleming: I have some experience with the Columbia Basin Trust. The biggest grievance was that there were no promises for improvements, no monitoring and no commitments. Maybe BC Hydro should say that it's open to entertaining it.
- C: Dave Conway: It would be a requirement for certification or getting the water license. Normally, those committees don't make comments regarding our ongoing operations. It's about impacts to the environments.
- C: Doug Fleming: I'm talking about dealing with logs and debris. Who will be looking at all the deadfall? You got on top of that pretty quickly. I think there should be a body to express regional and community interest.
- C: Dave Conway: You're talking about legacies. When we came up during Stage 2, government asked us to look at what the legacy benefits there would be.
- C: Doug Fleming: I think you're going to hear back from local governments in next two months. I went to a CAOs meeting recently and we said we have to get this thing going.

Duane Anderson reviewed 85<sup>th</sup> Avenue Industrial Lands and the multi-use of this site for the Site C project.

- Q: Ellen Calliou: What's it zoned for and who owns the land? The activities you're planning, it's zoned for that?
- A: Duane Anderson: It's zoned for light industrial. It was private property and it was for sale. We went in to do some investigations and the owners approached us to see if we wanted to purchase. The land use is consistent for the area.
- Q: Doug Fleming: In the event the project doesn't go ahead, what's the plan for the property?
- A: James Thomas: We don't have any specific plans. It's zoned light industrial and in the fringe area of town. I don't see any issues with selling this land in the event the project was abandoned.
- C: Nancy Spooner: I would like to do a round-table and ask each of you for final comments or questions.
- Q: Ernest Pfanner: Is there a plan for restocking fish?
- A: Dave Hunter: Fish is a major component of the environmental assessment. We've been out since 2005, doing baseline studies. We have to include approach to mitigation in the environmental assessment. In the fall, it's not a major topic in our consultation, but you'll have a chance to comment through the EA process.
- C: Don Harris: The fishing got better when the Bennett dam went up.
- C: Dave Hunter: It depends on the species. All species react differently between a river and a reservoir.
- C: Duane Anderson: During Peace Canyon construction, there was fish hatchery. There was a pretty long duration of fish stocking there.
- C: Dave Hunter: The agencies that ultimately approve our mitigation aren't in favour of hatcheries based on the long-term cost and issues with operating them.

- C: Dave Conway: What we know is species like Kokanee, Rainbow Trout, Bull Trout, Lake Trout they'll do well in reservoir. Species like Grayling won't do well because they're a river based fish.
- C: Don Harris: There's a lot of Jack Fish in the Moberly River. When that gets flooded back, I think that'll make good fishing back there.
- Q: Merlin Nichols: What's the cause of the rise in mercury levels in the fish in Williston?
- A: Dave Conway: When you charge a reservoir, you get an increase in methyl mercury from the soils and vegetation. When Williston was flooded, it flooded a mineral deposit that leeches mercury. I think it's the Pinsy fault. The result was higher mercury content than what you expect in a northern reservoir. There has been some drop-off, but not as fast as you expect. There is an advisory regarding Bull Trout because it's bio-accumulated. The longer they live, the more it has because of what they eat. Kokanee don't have much since they're live span is only about four years.
- Q: Bob Nicholson: The question and answers have covered a lot of my concerns. We haven't talked about silting. Has silting been checked out in the old dams? Has it been at levels where it was anticipated? What's happening with Site C, silt wise?
- A: Simon Douglas: We are monitoring the silt levels as part of baseline studies. The projection of Site C as a reservoir from early studies is that it's going to be a non-issue.
- C: Bob Nicholson: The previous dams have picked up the silt and it's settling there. It would be interesting to find out what was anticipated and what actually happened.
- C: Duane Anderson: I don't know of any monitoring of siltation of either reservoir. The reason is because it relatively light silt. It's not an operational concern. I haven't seen a study that has the todate siltation levels because it's not a concern.
- C: Simon Douglas: Site C 60 metre high dam with a small catchment area, whereas Bennett is a 200 metre high dam and has the capacity to take up a lot.
- C: Dave Conway: The key is that Site C isn't there for water storage; it's for head on the turbines.
- C: Bob Nicholson: The mouth of Moberly is close to dam. Will there be a problem of silt going back there? But if you said there would be any at the dam site, there should be any on the Moberly.
- C: Simon Douglas: There may be some slight siltation, but not to cause any safety concerns. That will be addressed in the environmental assessment.
- Q: Doug Fleming: Where things go from here in terms of your studies processes and when the environmental assessment is submitted.
- A: Dave Conway: We are doing BC Hydro-led consultation on these topics this time. We'll be back in the fall with more consultation topics. We'll submit an environmental impact statement in early 2013. The regulator is holding their open houses here in Chetwynd next week on the terms of reference. The public will be able to comment on those terms as well as when we file our Environmental Impact Statement. The regulators will hold open houses for that. We've been told it's a 24-month environmental assessment process. The EIS will go to the joint panel for review. That panel will hold hearings, review our report and produce a report. It then goes to the Minister of Environment, both federally and provincially. Government then makes the final decision. The

MEETING DETAILS	BC Hydro Site C Clean Energy Project
	Project Definition Consultation, Spring 2012
LOCAL GOVERNMENT	Chetwynd – Local Government Meeting
MEETING	April 26, 2012, 9:00 a.m. – 11:00 a.m.
	Pomeroy Inn & Suited – Banquet Room 2
	5200 North Access Road
	Chetwynd, B.C.

whole process will take three years and we're six months in to the process. You're best to ask that question to the regulator.

- C: Simon Douglas: The topics we're covering now and in the fall are just a fraction of study areas for this project. In the environmental assessment process, there are hundreds of topics to examine.
- C: Don Harris: I want to thank you for coming. BC Hydro always does a good job in presenting the information. What's the worse-case scenario if this dam doesn't go through?
- A: Dave Conway: We will have to get energy somewhere else. That's part of the integrated energy planning.
- Q: Don Harris: We need it?
- A: Dave Conway: Yes, we need it. In the worst-case scenario, we would have to go to market to buy energy.

Dave Conway wrapped up the meeting and encouraged participants to complete the feedback form and to encourage friends and others to participate.

The record notes that the meeting ended at 11:15 a.m.

MEETING DETAILS	BC Hydro Site C Clean Energy Project
	Project Definition Consultation, Spring 2012
	Mackenzie – Local Government Meeting
LOCAL GOVERNMENT	April 26, 2012, 5:00 p.m. – 6:45 p.m.
MEETING	District of Mackenzie Office
	1 Mackenzie Boulevard
	Mackenzie, B.C.

PURPOSE	Notes from a local government meeting for the BC Hydro Site C Clean Energy Project held on April 26, 2012 at Mackenzie District Office, Mackenzie, B.C.
FACILITATOR	Nancy Spooner, Kirk & Co. Consulting Ltd.
ATTENDEES	Stephanie Killam, Mayor, District of Mackenzie Joan Atkinson, Councillor, District of Mackenzie Pat Crook, Councillor, District of Mackenzie Dave Forshaw, Councillor, District of Mackenzie Jim Wiens, Councillor, District of Mackenzie
SITE C PROJECT TEAM ATTENDEES	Dave Conway, BC Hydro Alex Izett, Site C Project Team Simon Douglas, Site C Project Team Dave Hunter, BC Hydro James Thomas, BC Hydro Tim Lai, Kirk & Co. Consulting Ltd., Meeting Recorder

### **KEY THEMES**

### Workforce

• Participants were interested in whether the Site C project would be using local workers and discussed the high interest in opportunities from local businesses.

### Reservoir

- Participants were interested in the operating range of the Site C reservoir and whether the flows on the Peace River would change if Site C came into operation.
- Participants expressed their frustration regarding unmet promises associated with the Williston
  Reservoir, and asked for assurances that the same mistakes will not be made with Site C. They are
  also concerned that if the Site C project proceeds, BC Hydro will forget about its commitments
  associated with the Williston Reservoir.

The record notes that the meeting was called to order at 5:15 p.m.

### **DISCUSSION**

(Abbreviations will be used and mean – Q: Question, A: Answer, C: Comment)

### 1. Welcome and Introductions - Nancy Spooner

Nancy Spooner welcomed participants to the local government meeting, explained the format of the meeting and introduced the Discussion Guide and Feedback Form. Nancy informed participants that the meeting was being recorded for accuracy. Roundtable introductions followed.

### 2. Review of Consultation Discussion Guide and Questions and Answers – All

Mackenzie, B.C.

Dave Conway reviewed the introduction to the Discussion Guide, including ways to participate in the consultation and the schedule of open houses and the list of information items and consultation topics.

Dave Conway reviewed BC Hydro's energy planning, design of Site C and key project benefits

- Q: Stephanie Killam: How does Williston fit into provincial energy story to meet demand? If it's supposed to be the economic engine, the ups and downs concern us here.
- A: Dave Conway: We would continue to work within the operating range regarding the water storage. For us to go below the minimum levels, that would require approval from the community, industry and the water comptroller. That would be dependent on emergency services.

Simon Douglas provided information regarding the transmission update.

- Q: Jim Wiens: When the lines get to Peace Canyon, is there enough capacity to bring load south?
- A: Simon Douglas: Yes, there is. BC Hydro is however conducting more studies to determine capacity in the future. Our current indication is that we won't require further capacity.
- Q: Dave Forshaw: Some will go west to Kitimat?
- A: Simon Douglas: Once the power goes to grid, it's not ear-marked for a certain area. It goes where there is demand. It goes to service all of BC Hydro's customers.
- Q: Dave Forshaw: I understand there's consideration to go to gas-fired power, especially in Kitimat since there are concerns about powering those mines out there. Do you know what they're doing?
- A: Dave Conway: Our sources are probably the same, which is what we read in the media. From BC Hydro's point of view, through the Integrated Resource Plan, we only have a little room for gas 93% of electricity produced has to be clean or green. There's a bit of room to add gas generation but it's not enough to carry the load we're talking about for LNG. I've heard the same things about them self-generating, but those conservations are between the government and the suppliers.

Dave Hunter provided information on planning underway regarding worker accommodation and mentioned that worker accommodation will be a consultation topic in the fall 2012 consultation.

- Q: Dave Forshaw: For Mackenzie, do we, our contractors, fit into the local status? Would there be preference to local contractors and would we be local? If there are preferences for local, would we be considered local?
- A: Dave Conway: Absolutely, yes. The scope and size of the project will mean focus locally, regionally, provincially and western Canada and beyond to get workers. The region is already highly employed and that's going to be a challenge for us. For a local worker, like in Fort St. John and Dawson Creek,

they may leave their job and create a hole for someone else. We know we need a supply of skilled workers and it's going to be a challenge for us to get that. We're already building a directory of service providers. When we go looking for service, there's already of list we can go to ahead of time before we go out to tender.

- Q: Dave Forshaw: So you've worked with our Chamber?
- A: Dave Conway: Yes we have been. I'm also interested and surprised that at all our recent stakeholder meetings; we're seeing a lot of businesses at these meetings. At the Mackenzie meeting, almost all were businesses.
- C: Stephanie Killam: That's really good.
- C: Simon Douglas: We're seeing tremendous turnout and interest from businesses and that isn't lost on BC Hydro. The procurement process is still in development that'll depend on how work is laid out. As a crown corporation, we'll need to go through a competitive RFP process.
- C: Dave Conway: We want to learn from local communities' experience regarding things like worker accommodation. I think Council and community has a lot of offer on this. We would want to learn about what happened here over the last few years with skilled labour, housing, shift work. Even though you're removed from the immediate area, you've experienced some of this stuff and we need to hear about it.
- C: Dave Forshaw: We're still trying to learn of all implications but it definitely has disrupted our community quite a bit.
- C: Dave Conway: Those are the types of learning experiences we need to incorporate.
- C: Joan Atkinson: My husband and son are around Mt. Milligan a lot. When they built that camp, they built 2-3 social spaces to accommodate 15-20 people each. And you have 900 men living out there. So it feels like a prison because you can't go anywhere and be social, you sit in what he calls his cell. You can tell who are just getting there and who are just getting to the end of their shift. They've missed the boat on that. My husband has spent time on logging camps and this camp doesn't have the amenities. They need more and larger common areas.

Simon Douglas provided an overview of the preliminary impact lines and land use around the proposed reservoir and reviewed the four impact lines and proposed shoreline protection at Hudson's Hope.

- C: Joan Atkinson: So BC Hydro actually listened to us on impact lines due to what happened at Williston.
- C: Simon Douglas: Yes. That level of definition allows us the flexibility to manage the land use.
- C: Jim Wiens: I find it very interesting that there is a 600 feet difference between the lowest point in Williston compared to Site C. That's quite a drop.
- C: Simon Douglas: Yes, you have 83 kilometres between Site C and Peace Canyon and about 24 kilometres from Peace Canyon to Bennett. You have more than 100 kilometres and quite a drop.
- Q: Jim Wiens: If you're generating with the same water that comes out of Williston, is this reservoir going to have a larger flow than the Peace River now? Will it cause more erosion?

- A: Simon Douglas: We'll be keeping it the exact same as what's coming out of Peace Canyon since it's operated essentially as a run-of-river that would be the outflow on average. It would depend on the electricity demand; however, the fundamental principle is what comes in and what goes out.
- C: Dave Conway: We have to consider the Halfway and Moberly tributaries as well, because there can be some significant flows coming out of the Halfway as well.
- Q: Dave Forshaw: Have you come up with any significant features working with people to mitigate?
- A: Simon Douglas: The project is looking at all impacts, not only the environmental footprint of the flooded land and agricultural, but also archaeology, resources impacted, wildlife. It's a really big study for BC Hydro to define all the impacts. I wouldn't isolate one that needs to be addressed, but it needs to address all of them.
- Q: Dave Forshaw: Regarding the history of the area, will you be putting out any book, video, information to capture it before the dam?
- A: Simon Douglas: I haven't heard any plans to document the area, but I wouldn't be surprised if there is some consideration given to that since this project would be a major event.
- Q: Dave Forshaw: With Williston Lake, there was some effort to catalogue different buildings and the whole area before flooding it. I haven't been able to find out if our museum or people can get that information to see it. Do you have any knowledge of that?
- A: Dave Conway: That type of request would be best if you send an email to me. If we have it somewhere, it would be in our corporate archives. We can ask for it first.
- C: Dave Forshaw: I worked as a flunkee on a floating cap on the Finlay during the poundage and we had some guests who were taking pictures, making sure they documented areas that were going to be flooded.
- Q: Dave Conway: Were they BC Hydro?
- A: Dave Forshaw: I think so. It could've been contractors.
- C: Dave Conway: If so, that shouldn't be difficult to find. That information could've ended up in reports.
- Q: Pat Crook: Once you have reservoir, it's a navigable water, what effect does the Navigable Water Act have on the level of the reservoir?
- A: Dave Hunter: We have been working with Transport Canada on the Site C reservoir. There are a number of considerations under the Navigable Water Act. Mainly it's the dam and because we have a dam in place, they're interested in what recreation opportunities will be provided.
- Q: Pat Crook: I'm more worried about the Williston Reservoir because it is navigable for commercial vessels. If there are fluctuations on the levels, what controls does the federal government have?
- A: Dave Hunter: I don't have experience with Transport Canada on Williston, so I can't really
- C: Pat Crook: I actually went up on it with Ray Williston and toured the lake. And I've dealt with Transport Canada.
- Q: Stephanie Killam: Is there a way you can we find out?
- A: Dave Hunter: Let's trade business cards and get in contact.

Alex Izett introduced the overview of Highway 29 preferred realignments and reviewed the preferred realignments or corridors in the six segments.

- Q: Joan Atkinson: Is there any resistance from property owners?
- A: Alex Izett: From what I've heard it's generally very negative to the Site C project. To the highway realignments, they'd welcome it.
- C: Dave Conway: Within the valley, the vast majority are opposed, but there's one property owner who supports it. He doesn't talk about publically. He's not looking at being where he is for much longer given his age. Outside the valley, those who support it out number by 2 to 1 compared to those who oppose it. But they don't come out to the meetings.
- C: Pat Crook: There's a lot of gravel for the Halfway causeway.
- C: Alex Izett: We are planning to take material from the future inundated area so they would be mostly locally sourced.
- Q: Pat Crook: For the dam itself, they were talking about bringing in the fill from the confines of the City of Fort St. John?
- A: Simon Douglas: I'll get to it later when I present the 85<sup>th</sup> Avenue section. It's not the entire dam, it's a specific component.
- C: Pat Crook: Good, I just wanted clarification on that.

Dave Hunter reviewed the proposals for recreation sites and public safety and use of the proposed reservoir during construction and operations.

- C: Stephanie Killam: It'll be easier for you to go up and down on the Site C reservoir because the water goes up and down a few feet. Hopefully you won't have trees coming up. This wasn't taken care of for us and it caused a lot of angst for a lot of us.
- C: Dave Hunter: We will present the clearing plan in the fall. Transport Canada is in involved and they want to see that we have a debris management plan in place.
- Q: *Jim Wiens:* How deep is the reservoir?
- A: Dave Conway: Near the dam face, it's 50 metres. Think about it as a door wedge where it extends out at the back.
- Q: Jim Wiens: Will there be a change in fish species because it's deeper water?
- A: Dave Hunter: Part of the environmental assessment includes the effect on fisheries. We have to look at the existing species in the river once we have a reservoir environment, how those different species react. Bull Trout can live in both river and reservoir environments, Grayling do not. We'll have to evaluate all of that.
- C: Dave Conway: Jim, to further address the depth of the water, it's a like a door wedge, where the reservoir will be about 50 metres at the dam site and about 10 metres near Hudson's Hope.
- Q: Jim Wiens: 83 kilometres long?

- C: Dave Conway: Yes, 83 kilometres. It's a long wedge, big door.
- Q: Dave Forshaw: You're going to be displacing some people's homes. Are you providing them with a place with the same amount of land and be able to put some homes up against the reservoir giving them the same opportunities that they had before? You're giving them some money, but it doesn't seem to be really compensating them the real value of the land.
- A: James Thomas: That's a good comment. There is the potential for some people to be displaced. We're quite early in the process. We're looking at how people could be compensated. I think you're referring to what happened on Williston. That was done in the past and it's too early to speculate. It's feedback we've heard before. I can't really say either way right now.
- C: Dave Conway: In regards to the land impact by the project, the reservoir and the highway realignment, 81% of those lands are Crown, 12% is BC Hydro and 7% is private land. When you look at the land use and the impact lines and our general approach to reduce the take, once the reservoir is changed and the erosion has settled, there could be a surplus of land after the reservoir is filled that we won't need that we bought from owners. That's the potential that James is talk about it.
- Q: Dave Forshaw: So you've taken away from public ownership and you could be putting up some land for public ownership?
- A: Dave Conway: The owners have first right of refusal if the lands are surplus.
- C: James Thomas: The land acquired to-date was done through passive acquisition. Under that policy, if land is deemed surplus, we would offer it back to the original owner as opposed to a third party.
- C: Dave Forshaw: Please keep us informed of that process when you have answers.
- C: James Thomas: We'll have those answers in the years following when reservoir is filled and we monitor the land.
- C: Dave Conway: The assumption there is that we get certification.
- Q: Stephanie Killam: When you gave your public presentation here, did someone talk about boat launches on Williston?
- A: Dave Conway: Yes. And we passed on updates.
- Q: Jim Wiens: There was a group here a few years talking about boat launches. There were four on Williston and there were a total of 12 all the way down to Hudson's Hope. They had big plans and were going to put the money in. Is this reservoir going to flood those that are supposed to go in?
- C: Pat Crook: No, those would all go on Williston.
- C: Jim Wiens: Sorry, I meant all the way to Taylor.
- C: Dave Hunter: There's a commitment in the Water Use Plan to upgrade the boat launches downstream from Peace Canyon. Halfway and Lynx are two of those. Because they acknowledge the potential of Site C, those two were just gravel, not permanent concrete. They've been upgraded in the last five years and there's a similar commitment for Taylor. That launch is supposed to be upgraded in the next year, same with Blackfoot Creek Park, as well as the Williston ones. The upgrades tied to Site C will be in our environmental assessment and I know yours are tied to the license rights. Those are a bit different.
- C: Stephanie Killam: I suppose they have learned from the operational range of Dinosaur reservoir.

MEETING DETAILS	BC Hydro Site C Clean Energy Project
	Project Definition Consultation, Spring 2012
	Mackenzie – Local Government Meeting
LOCAL GOVERNMENT	April 26, 2012, 5:00 p.m. – 6:45 p.m.
MEETING	District of Mackenzie Office
	1 Mackenzie Boulevard
	Mackenzie, B.C.

- C: Dave Conway: One of the commitments of the Peace was upgrading the Dinosaur launch. That's supposed to happen this year. The design of the launch on Dinosaur is what the design for Site C is supposed to look like.
- Q: Stephanie Killam: What's the up and down water level on Peace Canyon?
- A: Dave Conway: Peace Canyon is plus or minus five feet. Normal operation puts it into three to six foot range. That's why it's doable on Dinosaur and not Williston.
- C: Dave Hunter: That's why we're doing the same boat launch design for Site C; we could have the same gangway and dock.
- C: *Jim Wiens:* On Williston, when the water level is ok, you can use it as a dock, when the water is low, you can use it a runway.
- C: Stephanie Killam: Do you promise on the blood of your mother that you won't renege on your promises?
- C: Dave Conway: On that note, he says yes.
- C: Stephanie Killam: I say that due to what happened on Williston.
- Q: Pat Crook: So you'll have commercial vessels on there to take care of waste and debris?
- A: Dave Hunter: Yes, the debris management plan will be covered in the fall. There will be pretty significant debris management out there, including debris booms.

Simon Douglas reviewed 85<sup>th</sup> Avenue Industrial Lands and the multi-use of this site for the Site C project.

- C: Pat Crook: Earlier in the process, there was talk about hauling rock from West Pine quarry.
- C: Simon Douglas: Most of the granular material used to construct the body of the dam will come from the excavations from the dam site itself. The core of the dam will be a glacial till which is an impervious material. The till material will come from a 237 acres parcel of land just outside Fort St. John in the regional district which is 6 kilometres from the dam site.
- C: Pat Crook: I didn't understand what the material was for, but it's for the core.
- C: Simon Douglas: The rip rap, the protection for the waves, will come from West Pine Quarry.
- C: Dave Forshaw: So you're taking material close to the site. I worked on Mica and they took materials from close to the pondage.
- Q: Jim Wiens: You're hauling rock from the quarry by truck?
- A: Simon Douglas: We're still looking at both options, by truck or by rail, and we'll consider handling.
- C: Jim Wiens: That would mean a lot of trucks going through Chetwynd.
- C: Simon Douglas: Yes, that would be a lot of trucks going through Chetwynd.
- C: Stephanie Killam: You seem to have learned from what happened at Williston. They don't need to go through what we went through and are still going through.

MEETING DETAILS	BC Hydro Site C Clean Energy Project
	Project Definition Consultation, Spring 2012
	Mackenzie – Local Government Meeting
LOCAL GOVERNMENT	April 26, 2012, 5:00 p.m. – 6:45 p.m.
MEETING	District of Mackenzie Office
	1 Mackenzie Boulevard
	Mackenzie, B.C.

- C: Joan Atkinson: That's my biggest concern how it's going to affect our reservoir because I had a gentleman come to my office and he is in panic mode about what's going to happen to Williston. He fears it's going to be the economic downfall of our community. He was really worked up.
- C: Stephanie Killam: What is driving the fear is that everything is focused on Site C and things promised in the Water Use Plan for Williston will be downplayed or forgotten. We're not going to allow that to happen. This may not affect us on our borders but it affects us in how everything else goes. We're quite determined not to let that happen.
- C: Jim Wiens: I working at museum as the curator anything in that valley under the lake level that is going to be of historical value, don't walk over it.
- C: Dave Hunter: We've been studying everything out there, not just heritage and paleontology, but everything.
- C: Stephanie Killam: Some of those things weren't done with Williston. We sometimes find things when the lake level is down. Because people at BC Hydro continue to talk about Williston as an economic engine, there is some concern about how far you'll go to make it produce more as 7 feet of water equals \$8 million. That doesn't sit well with us.
- C: *Jim Wiens:* I got a picture of a farm at Finlay forks where there was 400 acres of wheat and it's now 300 feet under water. There's a lot history in this valley and I'm sure there is in that one too.
- C: Joan Atkinson: But the bottom line is that we like to turn on the switches and have the lights turn
- C: Pat Crook: And we like the rates.
- C: Joan Atkinson: So if you're going to do it, do it right.
- C: Stephanie Killam: Let's do it right.

Dave Conway wrapped up the meeting and encouraged participants to complete the feedback form and to encourage friends and others to participate.

The record notes that the meeting ended at 6:45 p.m.

MEETING DETAILS	BC Hydro Site C Clean Energy Project
	Project Definition Consultation, Spring 2012
LOCAL GOVERNMENT	Fort St. John – Local Government Meeting
MEETING	May 2, 2012, 10:00 a.m. – 12:00 p.m.
	Quality Inn Northern Grand
	Fort St. John

PURPOSE	Notes from a local government meeting for the BC Hydro Site C Clean Energy Project on May 2, 2012 at Quality Inn Northern Grand, Fort St. John, B.C.
FACILITATOR	Judy Kirk, Kirk & Co. Consulting Ltd.
ATTENDEES	Trevor Bolin, Councillor, City of Fort St. John Diana Burton, Deputy City Clerk Larry Evans, Councillor, City of Fort St. John Grace Fika, Director – Corporate Affairs & HR Victor Shopland, Director – Infrastructure & Capital Works Janet Prestley, Legislative and Administrative Services Dianne Hunter, CAO, City of Fort St. John Lori Ackerman, Mayor, City of Fort St. John
SITE C PROJECT TEAM ATTENDEES	Dave Conway, BC Hydro Siobhan Jackson, BC Hydro Judith Reynier, BC Hydro Andrew Watson, BC Hydro Don Wharf, BC Hydro Mina Laudan, BC Hydro Emilie O'Genski, Kirk & Co. Consulting Ltd., Meeting Recorder

**KEY THEMES** 

### **Community Benefits**

- Local government participants expressed a desire to enter into discussions with BC Hydro to pursue benefits from the project and asked for clarification on when and how this would take place. The City of Fort St. John's desire to see a bridge crossing the Peace River was raised as part of this discussion. Participants expressed unhappiness that the project design does not include a permanent bridge crossing.
- Local government participants stated they are thinking long-term, beyond the construction period
  of the project. The City of Fort St. John expressed that they would like to engage with BC Hydro in
  discussions that focus not just on the immediate needs of the project, but also on how the project
  could benefit them in the longer term.
- Local government participants expressed a desire for the proposed major worker camp to be located on the north side of the Peace River to integrate better with Fort St. John.

### **Understanding the Site C Project**

• Local government participants indicated that they need clarity about whether BC Hydro will be seeking a boundary expansion to include the 85th Avenue Industrial Lands and the potential dam site into Fort St. John city limits.

MEETING DETAILS

BC Hydro Site C Clean Energy Project
Project Definition Consultation, Spring 2012
Fort St. John – Local Government Meeting
May 2, 2012, 10:00 a.m. – 12:00 p.m.
Quality Inn Northern Grand
Fort St. John

- Local government participants expressed a desire to have a better understanding of the overall project and all project components, as opposed to being consulted on specific aspects.
- Participants also asked what has been done with their input to-date, as they felt their input was not acknowledged.

The record notes that the meeting was called to order at 10:00 a.m.

### **DISCUSSION**

(Abbreviations will be used and mean – Q: Question, A: Answer, C: Comment)

### 1. Welcome and Introductions – Judy Kirk

Judy Kirk welcomed participants to the meeting and discussed options for the format of the meeting as many participants have already attended other meetings in this round of consultation. It was decided that the meeting format would be a brief review of the Discussion Guide followed by a longer question and answer session. Judy noted that a public comment period for the environmental assessment process was underway and BC Hydro would be back doing another round of BC Hydro-led consultation in the fall. Judy mentioned that the meeting would be recorded for accuracy. Roundtable introductions followed.

### 2. Discussion and Question and Answer Sessions - All

- Q: Lori Ackerman: So far the conversations we've had around highway realignment, outdoor recreation and 85<sup>th</sup> Avenue Industrial Lands I understand. I'm sure that some folks here are not familiar with these topics, but when it comes to consulting with the city, you don't consider the purpose of this meeting to be decision-making at all. So what does this input go into?
- A: Judy Kirk: No, this defined consultation period includes these topics and BC Hydro meeting with local government from Hudson's Hope, Taylor, Chetwynd, Taylor, Dawson Creek as well as stakeholders and the public. The meeting notes, the feedback forms and written submissions, which I'll come back to, all of those pieces of feedback come into Kirk & Co. where we write a consultation summary report and deliver it to BC Hydro for their consideration. Those are the inputs we use to write the summary report which becomes a record digitally and in hardcopy binders for you to review for transparency purposes.
- A: Dave Conway: The information we get also helps us plan and inform our Environmental Impact Statement as well as plan for mitigation.
- C: Judy Kirk: For example, on the preferred method of moving materials from 85<sup>th</sup> Avenue, like the conveyor belt option, if the consultation showed through feedback inputs that stakeholders are opposed to the belt and preferred that BC Hydro look at the truck option, that is the kind of input we would put in the summary report and BC Hydro would then consider that input.
- A: Andrew Watson: We have these key pieces of draft work done. We look at the feedback and figure out which topics we need to do more work on. For example, we know more from this consultation already that there are some alternate positions for boat ramps at the recreation sites we have proposed. We are looking for that type of feedback on the consultation topics at hand.

MEETING DETAILS

BC Hydro Site C Clean Energy Project

Project Definition Consultation, Spring 2012

Fort St. John – Local Government Meeting

May 2, 2012, 10:00 a.m. – 12:00 p.m.

Quality Inn Northern Grand

C: Judy Kirk: BC Hydro must do this work to help inform their application for environmental assessment certification. They need draft mitigation plans. The input from this will also go into refining the plans that are part of the environmental assessment application.

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- Q: Lori Ackerman: Just for the record, I don't consider this to be a consultation with the community.
- A: Judy Kirk: I hear you loud and clear. I want to make sure that you, as Mayor and Council representing Fort St. John, will provide in writing what your input or position is. I understand that you don't want us to consider what you say in this meeting as input towards this consultation.
- C: Lori Ackerman: Yes that's right. This is just an information session for you to clarify information for us.
- Q: Dianne Hunter: Council is solidifying its thoughts on the project. I know that our Mayor and Council has spoken to BC Hydro to get the big picture and that will help us form our position. There has been concern that we always get information in pieces. We haven't seen the big picture yet and the bridge example is a good one. It's hard for us to understand when there are so many components out there that are undetermined. For us to be at the table every single time is extremely draining. It's fatigue already and we are just getting started. Our city is trying hard to put forward a position but it comes in pieces and we want to know the big picture before we comment.
- A: Judy Kirk: For the written submission piece, Dianne, I'm asking you as senior staff, would it be okay to summarize what you said now? Something along the lines of, we participated as an info sharing session and our position will be coming later when we feel we have all the information. In other words, you are going to wait until you have all the information until writing a formal submission, that's just something for you to think about for this consultation. In the fall, there will be additional information on worker accommodation, reservoir clearing plans, access roads and additional information. There might be room to talk more about when is the best time for you to provide your written submission.
- Q: Dianne Hunter: In regards to 85<sup>th</sup> Avenue, for us, there are key decisions that BC Hydro has to make that will help our discussion. A key one is the boundaries. If it's not in our boundary it will be a referral process. If it's in our city boundaries, it's a whole different level of discussion. We don't have a role in land development outside our jurisdiction. There are always collaborations but our role is distinctively different and unless that decision is made then we feel like it's a waste of our time.
- A: Judy Kirk: Let's talk about that. Has BC Hydro decided that it's going to look at changing that?

  A: Siobhan Jackson: Dianne made these comments to me two weeks ago and we've had some follow up discussions to understand how and when we would make that decision. We are looking at the timing for whether we looking to apply for entrance to city boundaries.
- A: Dianne Hunter: Yes, that is the question but until it's determined we can't make a position. We need to know what our requirements are. We had that discussion the other day about water and sewer for the camps, you can design a system that works for BC Hydro but it's not going to meet the city standards. We don't want to comment on it when right now it's outside our jurisdiction. If you are outside the city boundaries, that triggers a lot of other discussions. It's a key component that isn't addressed anywhere. For example, when we talk about fire protection, we provide to business and residents inside our boundaries. So, you are our obligation if you are in our boundaries and we won't talk about it if you're outside and that goes the same with policing and

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others. If the dam is outside our jurisdiction, then it's a whole different discussion but seems like we're all mucking them up, not knowing whether it's in or out. It's a different level of obligation. A key question in my opinion is where does BC Hydro stand on all that? It will drive where our community sits because we'll be able to know if there will be a benefit for our community.

- C: Judy Kirk: We'll take that away as a follow up it's not directly related to consultation and we'll come back with an answer as to where things sit right now and whether there would be any change. You want to know is that going to change.
- A: Janet Prestley: A boundary extension takes time. It's at least 6-months and that's another concern for our staff.
- A: Judy Kirk: In my days with the city you used to have to do a vote.
- C: Janet Prestley: You can do a referendum or an alternative approval process.
- C: Dianne Hunter: If a decision takes too long, then there is no decision and then the opportunity is lost. We feel a bit panicky because there is no decision.
- C: Judy Kirk: You would like a timely answer on this. You want to know about what BC Hydro's position is on the boundary change and the larger question that you're asking it will drive more conversation.
- C: Judy Kirk: I'm going to ask Dave to kick-off, not that we haven't done that already, and review the front section of the Discussion Guide and then we can talk about which of the topics you want to start with.
- C: Lori Ackerman: I've sat through this twice already; I have to say that what I am really interested in is the stuff that's coming out in the fall.
- A: Judy Kirk: Should we start with worker accommodation and you can ask questions on that? Or should we go through 85<sup>th</sup> Avenue, I want to make sure that all councilors and staff hear the information and then we can move on.
- C: Larry Evans: I think we pretty much know all about 85<sup>th</sup> Avenue Industrial Lands.
- C: Lori Ackerman: We had that meeting in council chambers. The conveyor belt concerns me and it needs to be addressed. I just say that as a good neighbor because it's not in our jurisdiction. The Regional District is not happy because it seems like you're saying this is what we are doing there hasn't been consultation. Some properties have dropped 30% in value, that's what some banks have told owners, and that concerns me.
- C: Judy Kirk: What we are asking in this consultation, for example, is if you look at trucking versus the conveyor belt, do you think that the belt system makes sense relative to trucking? That's the broadest question that is being asked here.
- C: Lori Ackerman: I'm sure there are several ways that a belt can be constructed to decrease the dust and the noise, I'll leave the challenge to the engineers. If you can't mitigate, then there has to be some kind of compensation. I know that people in town we have had a dusty spring and the belt will really impact the community. I was just talking to Cordero Coal at the airport and Chetwynd had unbelievable coal dust problems. To mitigate as a good corporate citizen, Cordero Coal is sealing the coal trucks now.
- Q: Larry Evans: A blind man with a stick in his eye could tell you a belt would be better than trucks. We don't need any more diesel smoke in the air, along with the dust. Has there been any other

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exploration of other places like across the river on the south side where you could find this material?

- A: Andrew Watson: We've done extensive studies on both banks and when you come up towards Fort St. John, there is a ridge of material that is most suitable. The best place would be to take material from excavation in the left bank but that material is not suitable. It really is the ridge that works best.
- C: Larry Evans: If you look around Fort St. John there are cracks all around. That's the movement towards the river. If you pull all that dirt out of 85<sup>th</sup> Avenue, there is going to be more movement. We'll feel the effect of that up here. If you are just going to pull out the dirt and not replace it, that's what will happen. You can ask Victor, we have a big crack in front of the hospital. You should be prepared to mitigate that so it's not going to move.
- Q: Trevor Bolin: All I want to say is that from our first meeting, I thought the belt was a brilliant idea. The talk of covering it to mitigate dust would be a good idea. I would rather see the belt used than the trucks as long as you can semi-seal the conveyor belt. You're going to have a lot of backlash from residents in that area, but if you gave the option most people would lean to conveyor belts. I think you are on the dime but really look to seal it up.
- A: Duane Anderson: The focus of our discussions so far has been about mitigation. We recognize there are impacts and we want to know what we can do to mitigate it. The other thing is that the material we would be moving is cohesive and clay-like. We will be able to wet it down so it's not too dusty. It's not the same type of material as dry gravel, coal or things that are quite dusty. We are very focused on noise, dust, and mitigation.
- Q: Trevor Bolin: What's the estimate? Will that belt be in use for a two-year period?
- A: Duane Anderson: We know that we'll place material about five and a half months a year, up to five years. The maximum would be years three, four, five and six of construction, and it could be lower. Those are the things we know. When we look at hours and operation, there are different options. Can we move all that material and put it in trucks and place it in day only shifts? If not, would you run the supply-chain day and night 20 hours a day? Or do some stock piling away from houses. There are options and tradeoffs with different impacts to people and to the project. We need to do some more work to really understand. It's definitely not 24/7 there are limits, up to six days a week, 20-hours a day. We are asking ourselves what can we reasonably do and that's one of the big mitigating factors.
- C: Judy Kirk: Any other questions on 85<sup>th</sup> Avenue? There is a section in the Guide about post-construction use and obviously the question of jurisdiction is relevant there.
- Q: Dianne Hunter: The best and highest use of that land post-Site C is service land. Adjacent to our boundaries it makes sense that it meets the OCP and development plan for lands adjacent to the city in the long run. I mean everyone is saying it makes sense, but we need a decision about whether it's in the city boundaries, then we can really sit down with BC Hydro to see what that will look like. Phasing is understood but that is the highest and best use of the land. You talk about mitigation and I hear that word a lot. One of the messages that we try to bring forward in all our meetings with BC Hydro is what would actually leave people in this community better off. How are you going to make this community a better place? The 85<sup>th</sup> Avenue is one of those topics that gets

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people excited because it's seen as mining for the purpose of dam, for BC Hydro only, and it's right on the city boundaries. The real challenge is to say to the community, yes we know it's a significant undertaking but we are going to talk to you about the use after so you feel better off. We want to know where we will get ourselves in the long run. What you do never really gets people thinking about what it could be. If we are only talking about moving material, all the property owners will say they had quiet properties, but now their life will be less attractive than what it was before. If you have a proper discussion with property owners and tell them about the benefits it's a whole different discussion. So that 30% in reduction in property value might go up 50% increase in value but it's not in the same discussion. You're going to have 250 acres in light industrial and it's going to provide more employment opportunities if you'll put up with a conveyor for 7 years. If you don't connect that vision, then all you are going to do is get push back on single issues. Another example, the bridge that is designed, where is the benefit to the community at the end of the day. Again, if BC Hydro is not thinking about the big picture, then we are missing the opportunity and getting so far down the road. Here is BC Hydro's opportunity to really think about it in bigger terms. You keep designing a dam for BC Hydro's purposes without the long lasting benefits for the community.

- A: Judy Kirk: Part of what you are discussing is the conversation of what BC Hydro legacy benefits and they want to talk to you about. In the coming weeks and months when the benefits talks start coming, it will start to be more cohesive. The discussion about serving 85<sup>th</sup> Avenue or the bridge that seems to me that it will be an important forum. On the bridge for a second, you will probably recall that BC Hydro did bring the notion of a bridge in the 2008-2009 consultation period. You should look at the reports and the region was very much divided. That was the result at the time.
- Q: Dianne Hunter: It wasn't robust enough and not enough research. There was never an economic study done to show what the benefit was. The whole issue of opening up another transportation corridor there was no talk with industry it was just at that point a number of communities making emotional positions without further research done on it. It was an easy out.
- C: Judy Kirk: I'm going to ask BC Hydro to speak to that. I hear you loud and clear.
- A: Trevor Bolin: It's back to the benefits for people, there are line-ups right now because of the bridge work and the main road is about a 40-minute trip right now. When you ask Dawson Creek or Prince George about a bridge I don't really care what because it doesn't really benefit them. We need to take a hard look at us getting us out of town because I was there with those meetings as well. Hudson's Hope says they're not in favor. We need to look at the impacts to people in Fort St. John. One of the trade-offs is we can get to Chetwynd quickly. Right now, too many people in other areas shop in Grand Prairie and this is the opportunity we are faced with. We need to find ways to keep British Columbian's shopping and spending in B.C.
- Q: Larry Evans: When that bridge was first proposed, no one thought about where it would go. That's what happened there. I completely agree with Trevor. If we could get out of Fort St. John and the trucks didn't have to come through here, that's the transportation link and the benefit.
- C: Lori Ackerman: It's interesting you say industry wasn't interested in it and...
- C: Judy Kirk: I didn't say industry wasn't interested in a bridge, I said we did consult on it.
- Q: Lori Ackerman: We are going to be speaking with them because they were not aware of it in Calgary. They are looking at four-laning the highway this is an opportunity to build a bridge that

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will enhance this region and the economic benefits gets from the industries that have been here for years. The fact that it will be a construction bridge only is a complete waste of time and reason number one for this project to not go ahead. It's so important. This discussion needs to happen with the Ministry.

- A: Andrew Watson: There are two things. The historic design had a bridge downstream because the power house needed to be accessed from the south bank. The design change which was driven by seismic considerations and the spillway repositioned the structure. The spillway is switched for hydrology reasons. The other thing is we need early access across the river. We would build cofferdams to expose as much as the earth as we can. What we would do is channel the flow and put a construction deck and it would be done quickly. It's nothing like a permanent bridge. Then that temporary bridge becomes part of the coffer dam. Across our fleet of dams, we are keeping people off our dams for security reasons. You'd have to go over the gantry cranes, and this is only done by maintenance personnel. It wouldn't be used for the public anyway. We want to keep the public off the earth-filled dam. We'd need a second bridge built to the public standard. There were fundamental changes to the project. I think the discussion of a bridge would be an add on to the project. If you need a bridge for regional process, it would be a different structure and an addition. It could be built, but it's not needed for the Site C project. The roads we're using for construction are done to an industrial standard; you'd need a planning study. The main thing is that the discussion of a bridge isn't a construction bridge - the cost associated isn't related.
- Q: Janet Prestley: The construction bridge will be taken down?
- A: Andrew Watson: It will form part of the cofferdam and it would only be up for 8 months. The construction bridge is progressing out of the earth filled dam as we build it.
- C: Dianne Hunter: That wasn't clear. This is a key issue and it's not going to go away. It needs to be discussed further and maybe have us included in some of the design process. While you recognize we are the most impacted, there doesn't seem to be much willingness for Site C to consider how this dam will affect us and how you could make it better for us. This is our opportunity for us to say this is critically important. If you need additional studies I think that has to happen. In 2008 the economic arena is distinctively different than that of 2012. Life has changed for us all. We are saying this is an opportunity to say how we can make this region function more efficiently. We are a significant economic driver. We want that legacy.
- C: Judy Kirk: Good discussion.
- Q: Lori Ackerman: When Bennett was Minster, he said the bridge was a no brainer. I fail to see why we can't have the conversation about a bridge realizing that BC Hydro isn't the only to have that conversation with.
- A: Andrew Watson: I understand, the design of the facility doesn't warrant a bridge and it would be more downstream. We are not looking at changing the design itself.
- C: Lori Ackerman: If you built a bridge downstream, you would use it during construction.
- A: Andrew Watson: We would still build the construction bridge. Sure, we might use it if it was already there.
- Q: Larry Evans: Has anyone asked Ministry of Transportation and Infrastructure to see? We have been talking about twining and four-laning the highway. As Bolin said, the south Taylor hill has been under construction. If they ran it below the dam it would make more sense than all of a sudden

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having a big job twining two bridges. If you're building this, I don't see why you can't get on the same page and look at the overall picture.

- C: Judy Kirk: Are you asking if BC Hydro has talked to Ministry of Transportation and Infrastructure?
- A: Andrew Watson: Yes, as soon as this came up we talked about the issue. This connection has never been in their long-term planning horizons.
- A: Don Wharf: We did meet with Ministry of Transportation and Infrastructure to discuss this actual potential crossing. Ministry of Transportation and Infrastructure said it wasn't a priority and they had other priorities around the province.
- Q: Larry Evans: Lekstrom had to have been considering it at some point.
- A: Judy Kirk: There were staff discussions.
- Q: *Trevor Bolin*: Has there been any further consideration about putting a main camp on the north side of the river?
- A: Siobhan Jackson: Yes, we've definitely heard your comments and we are doing some further work. Some comments are about the nature of the workforce and how much will be long term general contractors versus specialists. We need to understand the reality of local and long-term jobs because of the nature of the work. We are working on that with the engineering team. It looks like 50-50, don't quote me but with the south bank structures and the power house, there are a lot of labor hours. We are doing work and I know we are doing a justification analysis with the business case. We have some cost estimates and looking at providing future information around the relative location and size. That's driven by where the work is and cost assumption for transport of workers.

We are looking to have that info around the end of May. The other piece is around the in-town housing and what that would look like and what BC Hydro's role would be. What type, market or non-market? We have workshops focused on demonstration units with respect to sustainable northern housing concept, or more units that would move into the long-term housing. We don't want to get into the business of owning houses. We are looking at the long-term options and long-term occupants with an affordable housing focus. We'd like to speak to your affordable housing committee to determine where the needs are. The last thing, we need to put together an overall housing plan and part of that will be an annual plan. Our contractors would give us a forecast of the coming year. We don't want more camp units than we need to. We don't want a maximum camp but we want to house the workforce. Once we have those forecasts we'll be able to plan.

- Q: Duane Anderson: What is your concern with camps?
- A: Trevor Bolin: My family has been in the gas industry since when Larry was born. When I grew up, you had a camp and would still be a part of the community. You're going to have people move here. We want the community of Fort St. John to have the benefit of these people being here. If it's located on the south side of the river, they're going to drive to Dawson or Chetwynd and it makes more sense to have them in Fort St. John and get involved rather than driving farther to Dawson Creek or Chetwynd.
- A: Siobhan Jackson: No matter where the camp is, there will be a transportation link to get into Fort St. John. On the south side, we don't want private vehicles driving into the camps. They'll be sitting in camps on the south, with trucks in Chetwynd for when they're done their shift and ready to go home. The way we structure it, the realistic link will be with Fort St. John. You don't want traffic on

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the busy construction roads. There will always be a road crossing across the site which will be downstream. They'll never be cut off. We need to be able to transport injured workers to the hospital and maintain road access through the construction period.

- C: Lori Ackerman: I think the real issue is that you're looking at transmission in 2021, and the city's view of the impact is way beyond that. There are some real issues. You're looking at your window and how it affects your project and we look at all the areas. From just a project perspective, we are looking way beyond this. I sat on PWAC for almost 10 years, and I have listened to the folks around Hudson's Hope and the historical issues about BC Hydro. Nothing against you people here, but the fact of the matter is, if this is an opportunity for BC Hydro to look at the long-term project.
- C: Judy Kirk: The benefits conversation has to start now. It's a requirement that BC Hydro has these discussions on what you call these "piece-meal" topics. I just want to be clear that BC Hydro consults on these pieces that are going to ultimately part of a plan in the environmental assessment. That doesn't mean that it's satisfactory to you but they need to do it for the boarder project. They can't go into the environmental assessment process without consulting on a lot of these topics. You need additional layer of benefit discussions and those should occur soon.
- Q: Lori Ackerman: When you bring the whole package to it, you need have a holistic conversation with the Ministry of Transportation and others.
- A: Dianne Hunter: If the goal is trying to ensure the long-run picture is considered versus a project, then you leave and know that we are at the same table. If you say we're here to build a dam and mitigate, then that's a different story. To know those key questions at the beginning then we'll know that we're having the right conversation. Is there an appetite for BC Hydro to talk about the 100-year picture and make community better off? If we don't agree on this, then it will probably be a short discussion.
- A: Judy Kirk: I don't think there will be an answer today, but there will be soon.
- A: *Mina Laudan*: I know that executive members would like to be involved as well. I think at the same time, there is so much work to meet the EIS-G obligations and that area of the project to get ready. The focus is to bring all those pieces together which is coming together in time.
- Q: Larry Evans: What we've discussed here today we've done before. This is not new. There hasn't been any decisions made about BC Hydro about anything but somewhere down the way we need to take the bull by the horns. At the end of the day we need new information and make decisions.
- Q: Lori Ackerman: Janet and I sat in on the conversation in the consultation office, I believe that the Ministry needs to step up the plate and ensure there are recreation sites. The Lynx Creek site is always full and it needs to be replaced. I realize there will be a timeframe before the reservoir can actually be used and I like the locations that you've proposed.
- C: Trevor Bolin: Ditto.
- A: Dianne Hunter: We all recognize the change from river to a reservoir. That needs to be communicated. It's not a lake. There needs to be strategy in place. What do local residents do for the ten years especially considering the lifestyle up here in the north?
- A: Judy Kirk: I'm going to pause; it's not actually ten years. It's been very clear in our other meetings that BC Hydro talks about moving from a river to a reservoir.

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- Q: Dianne Hunter: I'm talking about people in the community. Before the reservoir fills up, there is a recreation resource that is taken out of our community. The other part that is critical is to implement a master plan for the reservoir to be developed over time. With Williston, I know the methods have changed, and there are things you can't do in early stages. A plan will give assurance to the community that there is a bigger picture plan in place. It will take time to reach that and there will be a need to have a plan in place; both short-term in the construction period and for what the long-term picture going to be. In all of that, it needs to be realistic in what we are communicating. I get people saying there will be a phenomenal recreation and we're going to be the Okanagan of the north.
- C: Judy Kirk: Long-term plan is a good idea. Siobhan, can you go over the use?
- A: Siobhan Jackson: Page 25 of the Guide gives a lot of information. It's important for us to share what our expectations of use will be. During construction period, I do not anticipate a substantive upheaval of the use of the river. Transit from downstream to upstream wouldn't be possible. With short-term area closures that we'll manage those but majority of the river kilometres will continue to be open. We won't be allowed to close it. Transport Canada administers the Navigable Waters Protection Act (NWPA) that is inherently the right for propel to navigate the water. Closures would only be allowed based on Transport Canada's approval. During the reservoir operations, we are focused on getting it cleared and opened as quickly as we can. We are looking at pre-clearing some trees in the erosion area. We are looking at clearing that in advance so it's not floating debris. We are working with Andrew's team on slope stability to understand which areas would be most active in erosion. We anticipate that the upstream end would be clear and open the earliest. The areas around Hudson's Hope and Lynx Creek could be open within the year. Then, the downstream area around Cache Creek would open later within three years because we are being proactive. The Williston Reservoir is not a good comparison because it's 17,000 square kilometres and it wasn't cleared.
- C: Larry Evans: Just because you say it, doesn't mean it's so.
- Q: Trevor Bolin: Number one, we've said from the beginning we want to work with you. Help us love you. When we have meetings and there is no new information, that doesn't help us love you. We want to keep that relationship. Let's move forward and work together.
- A: Siobhan Jackson: Dave and I will follow up with you Dianne and how the process could look different. We want to move it away from information to consultation and the benefits framework will also be part of it. We hear that you want the whole ball of wax.
- C: Lori Ackerman: This is your project, but this is our life and we need to look at the longer term.
- C: Andrew Watson: Especially when we talk about worker accommodation. The missing pieces that are worth taking you through at the same time are access roads, clearing and worker accommodation as well as the construction sequence so you can see. Those are the main buckets.
- C: Lori Ackerman: Everything that is part of the worker accommodation. Northern Health isn't ramping up because they were told there was no need. My daughter had to wait 5-hours for a life threatening surgery. When you talk about workers, there is a whole lot more than just accommodation.

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- Q: Grace Fika: For me, I know when we've done this stuff before, I read from the beginning to the end, and it feels like it fell into a black hole. For me, it felt like we did this response and it went into a hole. I know there has been a couple of times and I don't know that it was really acknowledged, more than a small verbal comment. I know for us when we work on it and there is a lot of effort.
- Q: Lori Ackerman: Was our letter response reviewed or was it just a tick box?
- A: Siobhan Jackson: No, we reviewed it and we use it in terms of our planning. I'm actually meeting with Northern Health soon.
- C: Judy Kirk: What you are saying is that when you take the time to review a study is asking for a reply from BC Hydro to say that you've received and this is what we are doing with it.
- A: Dave Conway: If it's feedback into an engagement, we have generally not been responding. But we have tried to respond to those sorts of letters.
- C: Janet Prestley: One other comment, this project provides a lot of concern for our staff. BC Hydro has been working on this for years. The decisions that you are making regarding this project are going to create additional work for staff and the timeframe is something we need and it really concerns me.
- C: Judy Kirk: What I'm hearing is that you want to have an idea of what the benefit discussion would be and what timeframe, you want to know timelines like the boundary extension issue, and you want a response to letters when you send them in with input on studies, and you want a longer term planning horizon.
- C: Dianne Hunter: I think there is willingness from BC Hydro so don't take away from me that there isn't the cooperation. At the end of the day, we feel less loved when the dam is designed without that consideration but no one came forward and that was an important issue for Fort St. John and there was no acknowledgement. That was an important deal breaker for this city. If you really valued that relationship, why weren't we included in the decision? That is one example. We are all majoring in the minors but it's really important to stand back and look at the communities.
- C: Janet Prestley: Even in the 1980s there were problems that council is raising now. The city has indicated that over time and there isn't even an option.
- Q: Victor Shopland: The whole thing with the bridge, then a construction bridge, and now it's a construction bridge and just dirt so it's a big concept that was never brought back to us.
- A: Judy Kirk: When the PDR was issued, was there a meeting with Fort St. John at that time?
- Q: Dave Conway: I did information updates about it but the level of information was not conveyed at that time.
- C: Lori Ackerman: If you put the camp on the south side of the river, then Dawson Creek hospital is going to get nailed. We have a new hospital.
- A: Siobhan Jackson: Our planning, with making sure we have road transportation to the worksite doesn't change and the nearest facility would be Fort St. John. The worksite hasn't moved. Where they work on shift isn't affect where their camp is.
- Q: *Trevor Bolin*: What about going out at night?
- A: Siobhan Jackson: There will be a shuttle that will continuously bring people into town.
- C: Trevor Bolin: We want people to be part of Fort St. John. We spent a lot of time cleaning up the mess of the 70 and 80s when people didn't feel part of something.

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- A: Duane Anderson: The point of where they sleep, you still have to manage where these people move. There is a distinction of where the choice is and the primary movement of people would be in Fort St. John.
- A: Siobhan Jackson: They would be coming through the dam site on work construction roads because they have no way of getting across the Pine.
- C: Lori Ackerman: This is why we need to see the whole picture.
- C: Judy Kirk: I think that the broader conversation about worker accommodation will be happening in the coming weeks and months and that will be where we can go into more detail. Is there anything else?
- Q: Dianne Hunter: Regarding transportation, we've been advocating for improvement to the Alaska Highway over ten years. We are always alerting industries that they better be aware that there a several projects happening at the same time. So it's another major project and it's one that impacts all of us. They look at the Alaska Highway without looking at what that actually means. It's going to be hard for us to move around. When you talk to the Ministry, I think there needs to be a real plan. The upgrade to the highway is happening a decade too late. Again, some industries are missing that component. And when you talk about attracting and retaining people, this is going to be a real issue with bottle necks. Again, this is something to be mindful of. One of our suggestions back to the provincial government is that one way to mitigate the impact on the region is to twin it wherever possible to keep the highway open at all times. Apart for it being safer, it will allow our economy to work efficiently. The government doesn't look at it in the big picture. We are only getting one upgrade in this 100 years, so let's do it right the first time. We need others to add their voice to that and we have to keep people and goods moving. If we aren't looking at new bridges and twinning, how do we survive that? The expectation is that at least we should study so we know the options. It's the cost of the economy, not just the asphalt.
- C: Larry Evans: My final comment is all you have to do is look east to Alberta. They never had any interruption; there was too much oil and gas. Lastly, in the 1980s, the meetings for Site C was held in this very room.

Dave Conway wrapped up the meeting and encouraged participants to complete the feedback form and to encourage friends and others to participate.

The record notes the meeting ended at 12:00 p.m.