

# Site C Clean Energy Project

## Regional Community Liaison Committee Meeting

---

*Meeting Summary*  
*December 11, 2019, 12:00 noon to 3:30 pm*  
*Northern Grand Hotel, Fort St. John*

<p><b>ATTENDEES</b></p> <p><i>Regional Community Liaison Committee Members</i></p>	<p>Tamara Wilkinson, MLA Assistant, for MLA Dan Davies, Peace River North</p> <p>Dianne Hunter, City Manager, Fort St John</p> <p>Mayor Dave Heiberg, Hudson's Hope</p> <p>Director Karen Goodings, Area B, Peace River Regional District</p> <p>Director Brad Sperling, Area C, Peace River Regional District</p> <p>Mayor Rob Fraser, Taylor</p> <p>Dave Conway, BC Hydro</p> <p>Shanna Mason, BC Hydro</p> <p>Nancy Pepper, BC Hydro</p> <p>Chris Waite, BC Hydro</p> <p>Ross Turner, BC Hydro</p> <p>Brent Mossop, BC Hydro</p> <p>Emily Stringer, BC Hydro</p> <p>Kate O'Neil, BC Hydro</p> <p>Kelvin Ketchum, BC Hydro</p>
<p><b>ABSENT WITH REGRET</b></p>	<p>MLA Dan Davies, Peace River North</p> <p>Mike Bernier, MLA, Peace River South</p> <p>Ranish Shakya, Blueberry River First Nation</p> <p>Jane Calvert, Blueberry River First Nation</p> <p>Mayor Allen Courtoreille, Chetwynd</p> <p>Carol Newsom, CAO, Chetwynd</p> <p>Mayor Dale Bumstead, Dawson Creek</p> <p>Duncan Redfearn, CAO, Dawson Creek</p> <p>Cec Heron, Doig River First Nation</p> <p>Terri Paulovich, Constituency Assistant, Peace River South</p> <p>Mayor Lori Ackerman, Fort St. John</p> <p>Tony Zabinsky, City Councillor, Fort St John</p> <p>Chris Cvik, CAO Acting Hudson's Hope</p> <p>Stephanie Rocheleau, McLeod Lake Indian Band</p> <p>Arlene Solonas, L &amp; R Consultation Coordinator, McLeod Lake Indian Band</p> <p>Mayor Lorraine Michetti, Pouce Coupe</p> <p>Christopher Leggett, CAO, Pouce Coupe</p> <p>Director Leonard Hiebert, Area D, Peace River Regional District</p> <p>Director Dan Rose, Area E, Peace River Regional District</p>

	Shawn Dahlen, CAO, Peace River Regional District Betty Ponto, Taylor Andrew Young, Taylor Mayor Keith Bertrand, Tumbler Ridge Jordan Wall, CAO, Tumbler Ridge Councillor Nathan Parenteau, Sauleau Ken McKenzie, BC Hydro Steve Abbey, BC Hydro Ben Rauscher, BC Hydro
<b>INVITED GUESTS</b>	
<b>ATTENDED</b>	Jim Morgan, ATCO Maximilien Bisson, Voith Ann Danilevich, AFDE Troy Van Bolstelen, AFDE Jamie Bodnarchuk, PRHP Adriana daCosta, MoTI
<b>ABSENT WITH REGRET</b>	Brian Hussain, ATCO Christian Dann, ATCO Stephane Giroux, Voith Marelda Brydon, PRHP Craig Cornell, PRHP

**Documents Distributed (on December 10 & 11, 2019)**

RCLC Meeting Agenda  
RCLC Meeting Action Log - Updated December 2019  
RCLC Presentation Slides  
Site C Public Enquiries Report & FAQs for October & November 2019  
Site C Business Summary for Q3 2019  
Site C River Diversion Information Sheet  
Site C Property Acquisition Information Sheet  
Site C October Workforce Report  
Site C Major Contractors Employment Stats Breakdown – September 2019

**1. Opening / Welcome / Agenda**

- a) Dave Conway welcomed the Committee members to the meeting.
- b) Dave thanked Fort St John for hosting the meeting at the Northern Grand Hotel and acknowledged that the meeting was taking place in the traditional territory of the Treaty 8 First Nations.
- c) Dave identified muster locations and exits for safety.
- d) Introductions were conducted around the room of all members.
- e) The agenda was reviewed and a request made for any additional items by Dave Conway.
  - a. No additional agenda items were added.

## **2. Review of Action Items**

- a) Dave Conway reviewed the action item log and asked if the Committee had any questions.
- b) Shanna responded that BC Hydro will provide the Clayhurst letter to the Committee before the next RCLC meeting.
- c) Fort St John stated that for action item 2019-001 the Fort St John water reclamation facility is ready, waiting for power. Fort St John and BC Hydro will continue to move this action item forward.

**Action:** No new action items.

## **3. BC Hydro Project Update**

### **2019/2020 Site C Update**

Chris Waite introduced himself as the Director of projects for Site C. Update included:

- a) Chris acknowledged that Ken McKenzie, Director of Site C, sends his regrets that he could not attend. Chris presented the 2019/2020 update on Ken's behalf.
- b) Chris reviewed key milestones on the Site C project in 2019.
- c) Chris played the November construction drone video.
- d) Chris stated that 2020 will see activity on all areas of the project site.
- e) Shanna Mason stated that September has been identified for diversion in 2020, but asked Chris to clarify on if conditions are ready for diversion earlier, is there a potential for diversion to take place earlier?
- f) Chris responded that while September 1 is identified in the schedule as the milestone date for diversion, diversion could happen a number of weeks before or after the scheduled September 1 milestone if conditions are right.
- g) PRRD Area C asked whether the timing of diversion could affect fish spawning.
- h) Brent Mossop responded that a few weeks would not impact the fish spawning migration.

**Action:** No new action items.

### **Operations and Resource Management Presentation**

Kelvin Ketchum introduced himself as a principal engineer with BC Hydro. Presentation included:

- a) Dave reminded the Committee of the interest in this topic from the September RCLC meeting.
- b) Kelvin addressed the earlier topic on the timing of diversion. He stated that the focus is on September for hydrological and environmental reasons. The diversion date can't be too much earlier due to potential high rainfall events and safety, which is why the focus is on September and the initial diversion work needs to be completed before power demand increases for the winter. Kelvin stated he will talk about this more in his presentation.
- c) Kelvin encouraged questions during the presentation.

- d) Kelvin discussed the trends in the Williston reservoir levels over the past 7 years for the fall and winter seasons.
- e) PRRD Area B asked if BC Hydro has talked with residents and farmers along Halfway River about what to expect when diversion occurs.
- f) Dave responded that BC Hydro is planning to begin communication on diversion with boating groups in early April 2020, and communication with property owners will take place before this.
- g) PRRD Area B requested notification when BC Hydro is going out to discuss diversion impacts with property owners on Halfway River.
- h) Hudson's Hope requested a week's notification of when diversion is actually taking place.
- i) Shanna stated she will discuss this more in her presentation later, but reviewed that BC Hydro has already met with some upstream property owners and have shown them maps of diversion in some cases. Shanna added that BC Hydro is looking to put together an animation illustrating the headpond filling levels for public information. BC Hydro will let the PRRD Directors know when the meetings with property owners are occurring, and will meet with them as needed.
- j) Kelvin continued with the presentation and stated that BC Hydro measures and provides snowpack forecasts for Williston in monthly updates. At times more frequent updates are available.
- k) Dave added that if members of the Committee are not on the Williston Reservoir forecast mailing list and want to be, to let him know and he will add them to the mailing list.
- l) Presentation shifted to focus on climate change impacts in the PRRD. Kelvin identified the projected seasonal changes in the region in the scenario where little action is taken to reduce climate change, and in the best-case climate change scenario.
- m) PRRD Area C requested clarification on what is meant by precipitation. Kelvin clarified that it includes snow and rain.
- n) Dave reminded the Committee that the Director of PCIC presented on this topic at PWAC and suggested that if any communities are interested in having PCIC present to their communities or local governments on the topic of climate change impacts in the Peace Region, Dave will provide the contact info.
- o) Kelvin summarized that annual variability due to climate change is projected to continue, but the operation of Williston Reservoir can be adjusted to meet needs across the system.
- p) PRRD Area B asked whether the BC Hydro reservoirs increase the moisture in the nearby areas. They stated that there has been lots of anecdotal discussion on this topic, but is there scientific background.
- q) Shanna responded that BC Hydro will take this away to respond.
- r) PRRD Area B expressed interest in hearing from a climate scientist for further details.

**Action:**

BC Hydro will provide a week's notice to the Hudson's Hope District Council when diversion will take place.

BC Hydro will notify the PRRD directors when BC Hydro continues to meet with property owners in early 2020.

Committee members to contact Dave Conway to be added to the Williston Reservoir forecast mailing list as needed.

Committee members to contact Dave Conway for PCIC contact info if interested in having them present to their communities.

BC Hydro to provide response to Fort St John on the science/influence behind if reservoirs increase precipitation in nearby areas.

### **On-Site Construction Update**

Ross Turner introduced himself as the Director of construction for Site C. Update included:

- a) Ross pointed out roads on the Left Bank picture to orient the group to the image.
- b) Worker accommodation: Phase 2 rooms will add an additional 450 rooms, which begin construction in early 2020 with staggered occupancy as units are completed from May to Oct 2020.
- c) Ross identified construction works updates to improve erosion control on the left bank.
- d) PRRD Area B asked if this is near Garbage Creek. Shanna and Ross confirmed that L3 is not near that location, but confirmed that works around Garbage Creek are also complete.
- e) Ross updated that BC Hydro has achieved necessary compaction for the till material which is delivered to site via the till conveyor.
- f) PRRD Area C asked about timed release of sediment ponds at 85<sup>th</sup> Ave industrial lands, and asked which direction the flow will go.
- g) Shanna responded that BC Hydro can take that away to answer in more detail. The ponds delay the release during a storm event.
- h) PRRD Area C clarified his concern is which direction will the runoff go (east towards Old Fort or west towards L3).
- i) Nancy added that the water control structures being installed by PRHP are the first water control infrastructure installed on the lands to the east of 107<sup>th</sup>. The installation of this infrastructure will capture and delay the release of water during rain events instead of allowing the water to flow south uncontrolled past the Wiltsie Drive subdivision as it currently does.
- j) PRRD Area C stated he is concerned about if the flow will go towards Old Fort and may contribute to potential destabilization of the landslide.
- k) BC Hydro will provide an answer on the direction of the flow.
- l) Taylor asked what the headpond level will be at the inlet portals.
- m) Ross responded that the tunnels will be submerged beneath the headpond.
- n) Shanna provided an answer for the height of the headpond at the inlet tunnels. The maximum height of the cofferdam is 433 m. The height at the top of the diversion tunnels is 418 m. The typical maximum height of headpond will be 420 m, so 2 m above the top of the inlet tunnels. Therefore the inlet tunnels will mostly be submerged.

- o) Ross provided construction updates for the temporary fishway.
- p) Brent spoke to the fish habitat enhancement. Works areas 1 and 2 are completed previously. Work area 4 was completed earlier in 2019. Work area 3 is works to come. Work area 5 is under review due to geotechnical instability.

**Action:**

BC Hydro to provide an answer to PRRD Area C on where the flow from sediment ponds at 85<sup>th</sup> Ave will go (east or west).

**Fish Diversion Passage Presentation**

Brent Mossop introduced himself as a fish biologist with BC Hydro. Update included:

- a) Brent outlined existing fish passage techniques used in other locations, and their limitations for Site C. Brent outlined the limitations for use of a fish ladder for this site. Given the length of ladder needed at the site, fish would be exhausted at the top and unable to complete their migration. Therefore trap and haul is the method identified best suited to Site C.
- b) Brent provided context for the routes where migratory fish are coming from. Fish migration patterns would be disrupted by the dam, and BC Hydro took this into consideration during the Environmental Assessment.
- c) Brent provided examples of the use of trap and haul method at other locations— at the Cleveland dam, and a land slide area in North Vancouver.
- d) Brent played a video which demonstrated the trap and haul method in use at the Cougar Dam in Oregon, and outlined similarities and differences of the facility and process at each step as compared to the Site C facility.
- e) PRRD Area B asked if fish use scent to find their migration route.
- f) Brent confirmed that scent is known to inform migration route for salmon species.
- g) PRRD Area B asked if the facility will impact the scent of the water so the fish can't find their migration route.
- h) Brent replied that adjustments to flow rates will be implemented to maintain access for many species.
- i) Hudson's Hope asked if some species will be more attracted to different flow rates.
- j) Brent responded that some fish have implanted radio receivers, and BC Hydro uses these to measure the flow rates that different species respond to and will adjust flows as needed when in operation. BC Hydro has already conducted monitoring to measure which flows attract which species.
- k) Hudson's Hope asked how long different species of fish might need to wait below the dam for their preferred flow rate for them to approach the passage area.
- l) Brent responded that since BC Hydro has gathered data on fish migration patterns through the Peace River before the dam is built and will continue to collect data after diversion and the dam is built, BC Hydro be able to tell if decreases in overall fish passage occurs, and adjust flows accordingly.
- m) Hudson's Hope stated it would be interesting to see the data that has been gathered on fish movement to date.
- n) Hudson's Hope asked if predation has been built into the model.
- o) Brent responded that attraction and passage efficiency has been built into the models.
- p) Shanna asked how many fish have been tagged so far.

- q) Brent responded that about 15,000 fish are tagged per year, and around 100,000 have been tagged overall.
- r) PRRD Area B asked how far the fish will be trucked.
- s) Brent responded that fish will travel around a 1hr drive to the release sites. Multiple release sites are in place based on which area is best suited for different species—appropriate sites were identified through monitoring programs.
- t) PRRD Area B reiterated question about whether changes in water scent will impact spawning patterns.
- u) Brent responded that the trap and haul method is not observed to have affected the migration patterns for these fish.
- v) PRRD Area B queried whether water withdrawal from the river by the oil and gas industry will impact the fish.
- w) Shanna responded that the comptroller of water rights and BC Hydro are in regular contact, and oil and gas companies have a similar relationship with the water comptroller. The comptroller is intended to ensure that the combination of competing industries does not negatively impact the overall water quality.
- x) Hudson's Hope asked if different species will arrive at the intake at different times.
- y) Brent confirmed that different species will have peak arrival for migration at different times of the year. The facility will operate from April-October, which correlates with observed fish migration patterns.

**Action:** no new action items.

### **Off-Site Construction Update**

Chris Waite presented on construction works for the dam off-site areas. Update included:

- a) Chris stated that the Hudson's Hope berm procurement is in early stages.
- b) Chris acknowledged the recent challenges with smoke from burn piles and the venting windows. Chris stated that local mill closures have created a challenge in processing deciduous tree debris, creating more debris, and increasing the number of burn piles. Mills are currently taking coniferous trees.
- c) Chris reiterated that BC Hydro is targeting a 420 m headpond and outlined the debris clearing buffer that is being implemented.
- d) Peace River North (PRN) shared that they have been advocating for a safe chain up area at the bottom of Bear Flat hill on Highway 29 and asked if that work could be carried out with the realignment work.
- e) MoTI responded that a chain up area is not part of the scope for BC Hydro realignment since it is not part of the impact of the reservoir works.
- f) Hudson's Hope stated that a passing lane in that area is needed.
- g) Hudson's Hope asked PRN to share info on the chain up area request they received with Hudson's Hope.
- h) MoTI acknowledged that safe passing and a safe chain up area is an existing issue, but that they are not part of the realignment package for Site C. Upgrades to address those issues would be a separate package for update.
- i) Hudson's Hope reiterated the danger of that area, and that they have been requesting a solution from MoTI.
- j) MoTI stated that part of the Site C package design is to not reduce passing opportunities.
- k) PRRD Area B asked how BC Hydro is dealing with known unstable slopes around Farrell Creek with the new highway design.

- l) Chris acknowledged that Farrell Creek has some challenging slopes. Chris described the design of Lynx Creek East (which is below some of these challenging slopes). The design in this area includes a stability berm which protects the slopes below the existing highway from the impacts of the reservoir. It also includes a large embankment fill in a side channel of the Peace where the realigned highway will be located. This design moves the highway away from some of the unstable slopes.
- m) Dave added that the aggregate comes from the island in the Peace across from this segment. Chris confirmed.
- n) PRRD Area B asked about loss of wildlife habitat from loss of the island.
- o) Shanna answered that the wildlife program has specific species that BC Hydro is required to provide replacement habitat for (including bats, fishers, snakes, eagle nests, and 550 acres of wetland replacement). For other species the provincial government requires BC Hydro to study how a subset of all species are using the area before and after inundation, and report back to the province on the impacts of the changes. Other species are species of less concern (e.g. deer, elk, and moose). BC Hydro recognises that these species are adaptable outside of the impacted footprint of Site C. Shanna offered to have a presentation to this group on wildlife impacts and wildlife programs and monitoring programs at the RCLC or PWAC. Shanna added that information on BC Hydro's wildlife program was included at the Hudson's Hope open house on November 27.
- p) PRRD Area B would like info on the wildlife programs to go to the public.
- q) Shanna suggested BC Hydro's biologists involved in the programs can come to present and that BC Hydro has been trying to break the programs down into small easy to communicate updates and would welcome any suggestions on particular programs to highlight.

**Action:**

Committee to confirm interest and which forum to present information on BC Hydro's wildlife programs.

Shanna Mason presented on Site C Emergency Planning Guide for River Diversion Stage.

Update included:

- a) BC Hydro has had initial meetings with the PRRD, Fort St. John and Taylor to discuss the process to share information and finalize the guide.
- b) Intent is in January to put together a working group on diversion.
- c) BC Hydro will add Site C to the existing Emergency Management Guide for the existing dams once the permanent dam is complete. During the diversion period, there will be a separate Guide just for Site C. The guide will include notification stages developed collaboratively with the local governments.
- d) Shanna asked whether/what capacity communities upstream of Site C want to be involved in this emergency planning. Shanna asked the Committee to think on this and continue the discussion in the new year.
- e) PRRD Area C stated they will discuss this with BC Hydro in January and stated they have already had preliminary discussions with Shanna on this topic.

**Action:**

Committee to confirm interest on meeting/involvement in emergency planning with BC Hydro in January 2020.



## **Job and Business Update**

Kate O'Neil presented the business update. Update included:

- a) Aug 2019 is the peak project employment in the last 12 months. The seasonal shift and decrease in employment seen in past years has not occurred this fall, due in part to some of this fall's workforce now working on tunnels and highway 29.
- b) Nancy introduced the Northeast labour force numbers to provide context for the Site C PRRD employment number. The northeast includes the PRRD and NRRM which is a larger area than Site C's numbers which are only reported for the PRRD. Nancy compared this percentage for Site C to the labour force in similar industries. E.g. manufacturing sector accounts for 4% of Northeast labour force, and combined forestry, fishing, mining and gas is 9% for the Northeast.
- c) Nancy presented the community employment breakdown for the month of September 2019, included in the meeting materials package. Three major contractors reported out the numbers, and highlighted that the numbers are not comparable to cumulative monthly numbers.

**Action:** no new action items.

## **4. Contractor Updates**

- a) PRHP reported that they contributed \$90,000 to various Peace River Region community groups in 2019. The largest amount went to Northern Lights College, providing \$30,000 in scholarships to women in trades. Scholarship recipients must have graduated from a high school in the PRRD, as a way to ensure the funding is supporting PRRD residents. The college matched the donation, and it will be a legacy fund. The source of funds was from a site-wide recycling program for drink packages, as well as recycling construction debris materials. That money goes exclusively to community investment, and keeps that debris out of the landfill.
- b) AFDE reported that 100,000 cubic metres of concrete have been placed. Described that penstock sections require a unique crane for installation and they are using one of four in the world (more info on the crane is on their website, including a time-lapse video on their social media of the crane moving a penstock). Stated that hiring in 2020 & 2021 will increase their workforce by 50%. AFDE continues to sponsor a variety of community and indigenous events.
- c) ATCO described the upcoming camp additions in 2020. Stated they are continuing their local involvement with the Salvation Army, and donated \$2500 to the annual Christmas campaign. ATCO is working on a meals program with the Salvation Army to provide meals to in-need students at schools and in-need residents, from the hospitality side of ATCO's business.
  - a. Fort St John asked ATCO to expand on the meals program.
  - b. ATCO elaborated that the meals prepared at the Site C ATCO camp are prepared in individual packages. The meals are removed from the camp before their overall use-by date (per the contract), but are still useable. The Salvation Army has a van that can transport the food to the community.
  - c. Fort St John highlighted that the City was integral to this program being put in place and stated since the Peace Region has many work camps, this presents an opportunity to all Cities and Districts to share this program with other

companies for other worker camps and encourage them to partner in similar ways.

- d. Dave asked if this program will expand at other ATCO camp sites.
- e. ATCO responded that once the program is streamlined, they will look at expanding it to their other locations at other ATCO work sites.
- d) MoTI. Described upcoming procurement steps.
- e) Voith. Described upcoming works, including mobilising for installation of powerhouse for spring of 2020.

**Action:** no new action items.

## 5. Roundtable

A roundtable update occurred from the local community representatives:

- a) Fort St John: stated they had no further update other than the meal program partnership with ATCO.
- b) PRRD Area B: Stated a frequent question they hear is if Site C is on budget. Requested that the quarterly BCUC report to be sent to RCLC members.
- c) Hudson's Hope: Stated they are talking to BC Hydro regarding community outreach. Thanked BC Hydro for the November Hudson's Hope community open house. It was the second open house in one year. Stated that the community appreciates having info come out as available.
- d) PRRD Area C: Mentioned the burning and venting window, and that they are keeping an eye on dust on Old Fort.
- e) Taylor: Thanked BC Hydro for taking responsibility for their part of the burning window impact. Stated they are interested in meeting with BC Hydro on emergency planning for Taylor, especially for Peace Island Park. Thanked BC Hydro for continuing to keep them informed on diversion.

**Action:** BC Hydro to send quarterly BCUC reports to RCLC members on an ongoing basis.

## 6. Next Steps

- a) The spring meeting date was confirmed.
- b) Summer meeting dates were proposed: No date was chosen. BC Hydro will send potential spring dates, and poll for preferences via email.

**Action:** no new action items.