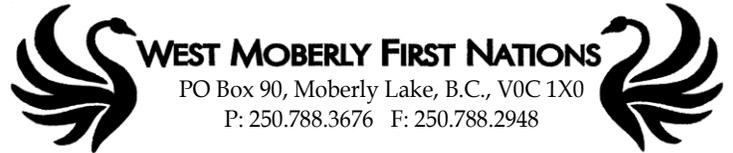




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## PRESS RELEASE

### **“Extremely High Probability” of Site C Delays Expert Report in Injunction Case Contradicts Public Assurances by Energy Minister**

**JANUARY 19, 2018 (FORT ST. JOHN, TREATY 8 TERRITORY):** There is an “extremely high probability” that Site C will be delayed by at least one year according to a comprehensive report prepared by international dam construction expert, E. Harvey Elwin, who reviewed a number of confidential documents obtained by West Moberly First Nations in the leadup to their court application for an injunction to halt work on the project. Mr. Elwin’s report contradicts recent assurances by Energy Minister Michelle Mungall praising BC Hydro for doing “a fantastic job” and claiming the project is on track with its current schedule and budget.

Mr. Elwin’s report identifies seven distinct “major risk issues” responsible for current and future delays. At the top of the list? Major setbacks in the placement of concrete for the dam’s right bank roller compacted concrete (RCC) buttress, a massive structure requiring almost 2 million cubic meters of concrete. Mr. Elwin observes that only 35% of the planned concrete was placed in 2017 and acceleration efforts this year appear to have failed. Delays in concrete placement have ripple effects on other critical steps, leading Mr. Elwin to conclude that there is an “extremely high probability” that the Project Milestones will be delayed, pushing river diversion, reservoir filling, and the project’s in-service dates back by at least one year.

But the list goes on. Mr. Elwin finds that several of the “major risk issues” may independently delay the project even if setbacks on others can be overcome. These issues include “unusual”, “detrimental” delays in building the right bank drainage tunnel which Mr. Elwin says should have been a relatively “straightforward, simple” job, particularly compared to the two large (750 meters long, 12 metres wide) horseshoe-shaped diversion tunnels yet to be built.

BC Hydro has previously estimated the cost of a one-year delay to be over \$600 million.

“Here’s a report from an international expert setting out the seven deadly sins of dam construction. And Site C is guilty of every one of them,” said Chief Roland Willson, of West Moberly First Nations.

“We’ve been hearing rumours of problems at the dam site for a while. But now we’ve got the cold, hard facts, and nobody can blame us for the massive delays and cost overruns to come. They can thank the Premier himself for those,” said Chief Willson.

The BC Government and BC Hydro appear to be in denial about the troubled state of the project. In a June 13<sup>th</sup> article in the Vancouver Sun, Energy Minister Michelle Mungall is quoted praising BC Hydro for doing a “fantastic job” and claiming that the NDP Government

had adopted a more “conservative type of modelling” which predicts Site C has a 90% probability of meeting its current budget. A progress report filed with the BCUC on July 11<sup>th</sup> by BC Hydro President Chris O’Riley also claims that the project is on track to meet its key milestones.

However, internal BC Hydro documents obtained by West Moberly and reviewed by Mr. Elwin tell a different story. For example, the February 2018 meeting minutes of the Project’s Technical Advisory Board describes BC Hydro’s schedule as “aspirational” and expresses many of the same concerns that are set out in Mr. Elwin’s report but not acknowledged in statements by the Minister or in BC Hydro’s public progress reports.

“Why is it up to the First Nations to unearth what’s actually happening at Site C? Every time they take one step forward they take two steps back and the only thing the public gets to know is that important steps were taken,” said Chief Willson.

“The only ‘fantastic’ thing about Site C is the belief that it will ever be completed,” added Chief Willson.

### **Public Disclosure during the Injunction**

For his expert report, Mr. Elwin reviewed a number of documents that were not previously disclosed to the public, including detailed schedules, internal progress reports, technical advisory board meeting minutes, and other documents he required to estimate the likelihood of project milestones being met and the potential cost of an injunction. References to confidential information has been redacted from the expert report, but an unredacted version will be provided to the court for the three-week injunction hearing set for three weeks in Vancouver, starting on July 23<sup>rd</sup>.

The First Nations have obtained a court order requiring the proceedings to be videotaped and made available on the internet for public viewing. However, the terms of the order prevent confidential information from being recorded or webcast, and also restrict news media or the public from downloading, editing or reproducing the footage. The Canadian Broadcasting Corporation has filed an application to vary the terms of that order by removing the restrictions on editing and republication. However, it remains to be seen whether reporters will be permitted to attend the proceedings and report on any confidential aspects of the case.

### **Concerns regarding Secrecy at Site C**

Mr. Elwin’s sworn affidavit is highly critical of the lack of transparent public reporting on Site C:

[W]ithholding virtually all the cost, schedule, and progress information from the public and the public oversight bodies such as the BCUC are far from the norm...

Based on my experience with many major dam and hydroelectric projects constructed by numerous governmental and public agencies, it is my opinion that the extremely high level of confidentiality and the lack of availability of quantitative progress, cost, and schedule status and progress information in the Site C Project public and BCUC quarterly and annual progress reports is extraordinary. I have never

seen in 50 years a major public project or program being put in place for its ratepayers by a public agency providing as little information.”

### **Mr. Elwin’s Qualifications**

E. Harvey Elwin has spent most of his 50-year career with large multinationals working on hydroelectric projects around the world as an engineer and in major leadership roles. His vast experience in the area includes assisting construction management teams reach planned 400,000 cubic meters per month in concrete production for the \$27.6 billion Three Gorges Dam in China, and as a lead project manager responsible for design and construction of the \$2.25 billion Ghazi Barotha Hydroelectric Project in Pakistan, which involved more embankment dam fill, excavation, and concrete placed than Site C and was one of the few mega-hydroelectric projects to finish on time and under budget in the last 20 years. Mr. Elwin also has experience acting in senior roles related to river flow/surface levels; transmission lines/substations; management of design/procurement; cost estimating; remote arctic construction; river diversion; quality assurance/performance audits; construction planning/scheduling; and highways construction.

### **Implications for West Moberly’s Injunction**

On January 15, 2018, West Moberly First Nations and Prophet River First Nation each filed civil actions alleging that Site C in combination with the previous two dams on the Peace River, unjustifiably infringe their constitutionally protected rights under Treaty 8. The civil claims ask the court to prevent the completion of Site C. However, it may take a number of years to obtain a judgement at trial. So, on January 15, 2018, West Moberly (with Prophet River’s support) filed an application for an interim injunction to suspend work on Site C until the civil claim is decided at trial. As an alternative, West Moberly is also asking the court to consider an interim injunction that suspends work only within 13 “critical areas” that West Moberly believes do not overlap with the critical path work that BC Hydro would need to complete to meet its project milestones but which have irreplaceable cultural and ecological value to West Moberly (the “Critical Areas Injunction”), as well as an assurance that any work BC Hydro elects to do outside the critical areas cannot be used later as an argument against the permanent work stoppage if the First Nations succeed at trial. These critical areas are depicted on a map included as an appendix to the Notice of Application filed January 15, 2018.

In its response to the West Moberly injunction application, BC Hydro claimed it will cost \$660 million to suspend work in the critical areas for 2 years and \$1.1 billion for 3 years. However, Mr. Elwin’s report demonstrates that most of these estimated costs are attributable to the assumption that the Critical Areas Injunction would cause BC Hydro to miss key project milestones such as river diversion, reservoir filling, or in-service date.

On the contrary, Mr. Elwin’s report demonstrates that work in the critical areas can be stopped for up to 36 months without impacting any of the project milestones. This greatly reduces the cost of the Critical Areas Injunction, which Mr. Elwin estimates will range from

about \$17 million (18-month injunction) to \$71 million (36-month injunction). To give these numbers context, this represents only 0.16% to 0.66% of Site C's current \$10.7 billion budget.

In the human rights context, large enterprises, such as hospitals, are held to a higher standard than smaller operations, like corner stores. Costs are only a defense to denying reasonable accommodations if they significantly affect the viability of the employer's operations. For example, in *Council of Canadian with Disabilities v VIA Rail Canada Inc.*, the Supreme Court of Canada imposed a remedy that added costs of between 4.4% and 35% of a \$402 million-dollar project.

### **BC Hydro's Previous Claims that Others are Responsible for Project Delays**

BC Hydro has made previous claims that work suspensions proposed by others will lead to lengthy delays and cost overruns. For example, shortly after the NDP won the plurality of votes in May 2017, John Horgan, then Premier-elect, asked BC Hydro to suspend work on Site C's Highway 29 Realignment for about three months until the end of the BCUC Inquiry on the basis of concerns raised by West Moberly, local landowners and others. In response to Mr. Horgan's letter, BC Hydro's CEO held a press conference on June 7, 2017 claiming the highway realignment work would take two years to complete and had to be finished prior to river diversion, which in turn had to occur in September 2019, meaning that any delay to the highway realignment would force BC Hydro to delay river diversion by an entire year at an estimated cost of \$630 million.

However, shortly after Mr. Horgan's NDP took office, BC Hydro suspended the highway realignment work at Cache Creek, identified a local detour to resolve the asserted "public safety risks" which BC Hydro's CEO had claimed made it impossible for river diversion to precede completion of the highway realignment. A one-year delay to river diversion was later announced by BC Hydro on October 4, 2017. Mr. Elwin's report confirms that it was the tension cracks at the left bank which first arose in February 2017 which were responsible for the one-year delay to river diversion, and his report states that this delay would have been evident to BC Hydro well before this announcement was made. According to a June 13, 2018 article in the Vancouver Sun, Minister Mungall now acknowledges that the tension cracks were the cause of the delay to river diversion.

### **Summary of the Elwin Report on 7 Major Risk Issues:**

- 1. Right Bank RCC Buttress:** In the first year of the three-year plan, the main civil works (MCW) contractor placed only 35% of its planned roller compacted concrete (RCC) placement. At that pace it would take nine years to lay the concrete. The generating station contractor cannot start work on the powerhouse until the powerhouse RCC buttress is complete. Mr. Elwin predicts a delay of three to five years in completion of the dam and core block and provides the following expert opinion:

"[T]here is an extremely high probability and likelihood that the Project Milestones will be delayed by the delay in the remaining RCC Buttress work affecting both the earth fill dam construction and GSS construction work, even if the challenging Left

Bank Diversion Facility accelerated plan and schedule succeed and there is no further diversion delay.,

- 2. Right Bank Excavation Completion:** Right bank excavation is seriously behind schedule and likely to delay Project completion. “8.2 million cubic meters of bedrock for the approach channel and 2.3 million cubic meters for the RCC buttress (including the spillway). Mr. Elwin concludes that “the Right Bank excavation is seriously behind schedule and falling behind further. ...”
- 3. Right Bank Drainage Tunnel** is delayed and a sign of serious problems. “Before excavation of the spillway buttress can proceed, the right bank drainage tunnel (“RBDT”) has to be completed. Mr. Elwin concludes that “It is my opinion that the RBDT should be a straightforward, simple, small tunnel to excavate, and the progress and delays in completing it have been unusual and highly detrimental to the progress and finalization of the design of the Right Bank Buttress.” “the delay is difficult to understand and clearly a sign of potential problems in moving to the excavation of the two relatively massive diversion tunnels”
- 4. Left Bank Excavation** in 2017 encountered two tension cracks which required stabilization and delayed left bank progress by adding to the quantities of excavation and embankment. These challenges “led to the late start of the diversion facilities and most likely the year delay in river diversion milestones” which Mr. Elwin states “was evident well before the announcement was made.” Technical Advisory Board meeting minutes indicate continuing concerns with ongoing excavation, and Mr. Elwin concludes “there is a likelihood of further delays”.
- 5. Diversion Tunnel Excavation** has a “high risk” of being delayed and contributes to a “very high” risk that river diversion will be delayed for a second year, from 2020 to 2021. The diversion tunnels require excavation of two horseshoe-shaped tunnels approximately 750 m long and 12 meters wide. Mr. Elwin concludes. “I seriously doubt the capability of the Main Civil Works contractor to take on and effectively perform to an accelerated schedule for two major tunnels each more than seven times the size of the [Right Bank Drainage Tunnel].”
- 6. MCW Work Quality:** Based upon his review of Technical Advisory Board meeting minutes, non-conformance reports, and a number of confidential documents, Mr. Elwin concludes that significant risks to project schedule (and reflected in the issues identified above) come from the poor performance of the MCW contractor. He concludes: “In my experience, when this situation occurs it is nearly always accompanied by serious delays in the work due to quality issues involving rework or stoppages of the work until work can be done in accordance with the contract requirements.”
- 7. Confidential Major Risk Issue:** Mr. Elwin’s report identified a seventh major risk to delayed project milestones. However, his opinion on this issue is based on a review of information BC Hydro asserts to be confidential. Mr. Elwin concludes that this issue will contribute to a significantly increased likelihood over the next several years that the

current project milestones will be delayed, independently of the RCC placement delays and other major risk issues outlined above.

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**More Information:** See General Backgrounder on Site C Litigation, available at: [www.sagelegal.ca](http://www.sagelegal.ca) (Site C tab)