

October 30, 2013

Community water supply safer, more reliable when separated from BC Hydro energy generation

A community water supply that's separate from BC Hydro's system from John Hart Lake will provide a safer, more reliable drinking water source for the City of Campbell River, Council and BC Hydro reps agree.

When Council awarded the contract to begin construction of a new community water supply system at its October 22 meeting, discussion included questions about plans for an alternative water system that could provide a back-up supply in the event of an emergency. In particular, why not have a way to tap into BC Hydro's new tunnel that will carry water past the dam to generate energy?

"We looked at many options considering cost and timing, and tapping into the tunnel had major issues that prevented it from being a viable option as a domestic water supply," confirms Stephen Watson, John Hart project communications lead and BC Hydro's liaison to the City for the past 13 years. *"For the City's drinking water safety and reliability, it's beneficial for both parties to have complete separation from each other's infrastructure. This is one of the primary reasons why BC Hydro, appreciating the City's financial situation, is contributing as much as we are for a much-improved and detached City water withdrawal system."*

Watson says coupling the City's supply with BC Hydro's tunnel would not provide a reliable water source, particularly in the event of an emergency.

"We have to remember that an earthquake would likely affect water supply in that tunnel," Watson says. *"In that kind of an emergency, BC Hydro would likely have to de-water the tunnel for inspection. Also, BC Hydro's new tunnel will be dewatered every two to five years for maintenance that could last for about two weeks. It is simply not a reliable source of water."*

"There have been comments made asking what's the advantage of having a new source from a different area of the lake rather than using the three large pipelines that come from the dam down to the generating station now?" explains Councillor Andy Adams, City Council liaison to BC Hydro. *"Along with being built to higher earthquake standards, the City's new water infrastructure, that will go deep into the John Hart reservoir and below the draw-down zone, will be much more reliable than the current water supply source."*

"These 60-plus-year-old wooden penstocks are just one single source of drinking water drawn from the same body of water, and at one location at the dam," says Watson. *"In the event of an earthquake, BC Hydro might have to lower the reservoir level for dam safety and public safety reasons, and all three pipelines would then be dewatered and out of service for potentially days, weeks or months pending the results of the dam inspection."*

"The City will determine requirements for a back-up system and how to best meet future water supply demand, but it will not be coming from BC Hydro's tunnel infrastructure," Adams says.

"BC Hydro and the City of Campbell River have worked well together on the water supply issue for many decades, from the ongoing water use agreement that's renewed every one to five years, to the great deal of work over the past two years on the John Hart project and the City's domestic water supply infrastructure," Watson adds.

"BC Hydro's funding support is vital for this project to proceed. This significant contribution from BC Hydro for this portion of the John Hart project was deemed appropriate and defensible to the BC Utilities Commission's (BCUC) exhaustive review and eventual approval of the John Hart project," Adams adds. *"It is important to note that the City of Campbell River will be receiving a brand new structural and seismically sound, dedicated water supply system that will provide safe, clean drinking water for the next 50 years at a cost of 25 cents on the dollar, and possibly even less. With this solid partnership, we will vigorously pursue alternative sources of provincial and federal or other funding for the balance of the infrastructure costs."*

Points to note

- The Highway 28 watermain will be constructed by Stantec Consulting Ltd. at a value of \$422,154.16.
- In July 2012, Council approved BC Hydro's commitment to contribute 75 per cent of costs (up to \$12.5 million) of the projected costs to construct a new, dedicated domestic water intake for the City of Campbell River.
- BC Hydro and the City have been working together to develop a solution for continued City water supply since early 2011.
- The City of Campbell River's water license permits water from John Hart Lake to be delivered to approximately 35,000 people (including three First Nations reserves and some areas within the Strathcona Regional District).
- Raw water has been delivered to the City's water system directly from BC Hydro's pipelines since 1947.
- BC Hydro is replacing its pipelines with a tunnel from the dam to the replacement generating station.
- The tunnel will not be suitable as a primary supply route for City water because it will be scheduled for regular draining and maintenance.
- A new intake system will continue to route raw water directly from John Hart Lake to the existing water treatment centre prior to distribution to the community.
- Campbell River's high quality drinking water is treated with ultra-violet and chlorine disinfection. Raw water from John Hart Lake does not currently require filtration.

###

Contacts:

Councillor Andy Adams, City of Campbell River

250-286-5708

Stephen Watson, BC Hydro

250-755-4795