

## SITE C PROJECT

# OLD FORT FISH HABITAT ENHANCEMENT

## Q&A

*The following questions have been sent in by Old Fort residents in response to the notification of fish habitat works beginning.*

### About the Open House

**1. Can this meeting be held in person instead of virtually?**

- At the time this meeting was planned, there were still a lot of unknowns regarding the COVID-19 pandemic. COVID-19 passports will still be in place at the time the meeting is held.
- We decided to host the meeting virtually for health and safety reasons.

**2. Haven't you already done enough fish enhancement work? We were under the impression you had finished with fish enhancement works.**

- Under the Fisheries Act Authorization for the Site C project, BC Hydro needs to enhance fish habitat to offset the effects of the dam.
- We are about halfway done the habitat enhancements needed for the project, under the Fisheries Act Authorization.
- We worked with independent hydrotechnical and geotechnical engineers to develop habitat enhancements to deepen the riverbed, preventing areas from becoming dry due to fluctuating water levels.
- The first portion of the fish habitat enhancement was completed on the south bank in 2019.
- We had originally planned to create habitat on the north bank as well but changed our plans due to concerns about the landslide.
- The new area is only on the island in the middle of the river, and geotechnical engineers have determined that it will not affect the slide area on the north bank.

**3. Is the reason this project was moved because BC Hydro needs the gravel, not due to the landslide? Why have the plans been approved and then changed?**

- Since the 2014 concept development, we had planned to create fish habitat in the area around Old Fort.
- Due to concerns about the landslide that took place in 2018, we eliminated the planned side channel habitat enhancement works but determined the works in the mainstem off the island could proceed.
- We finished the fish habitat enhancement work on the south side of the river across from Old Fort in 2019.
- As part of our efforts to reduce the need for gravels from outside the project areas, we are using the gravel we excavate from the river-bed in the construction of the dam.
- BC Hydro has already used gravel from in-river excavations that were part of an offset for damsite construction activities – this is more of the same.

**4. Are you bringing gravel to the island for the fish enhancement work, or are you hauling it away?**

- We are hauling gravel away from the fish enhancement area and using it for dam construction. That helps us create additional fish habitat at the same time as repurposing a large amount of excavated gravel.
- Hauling will take place over several months this summer/fall.

## Timing

**5. Why has the Old Fort community been ignored? Why weren't we told sooner – the work is about to start?**

- We recognize this work will be disruptive to residents at times over the coming year and we appreciate your patience as we work to mitigate the impacts where possible.
- We originally discussed this project with the community and waterfront residents in 2016 and 2017, when we were planning the backchannel work as part of the fish habitat project.
- Redesign of the Old Fort fish habitat enhancement took several years to finalize after the 2018 Old Fort slide, and we are now talking to you about the revised project before starting construction in May.
- We also discussed this with several the waterfront property owners and the Old Fort community during our virtual town hall meeting in July 2020 and follow up meetings with waterfront property in April 2021.
- Under the project's Fisheries Act Authorization, BC Hydro must complete the works before the beginning of project operations, expected in December 2024.

**6. Will the main construction for the fish habitat enhancement project be complete in December 2022 and why does it take until then?**

- In addition to the 2022 fish habitat enhancement works in the middle of the river near Old Fort, additional works are expected in 2023 on the south side of the river, near the dam site, to meet the balance of our remaining Fisheries Act Authorization offset requirements.
- It takes a considerable amount of time to design and construct fish habitat. For example, it took approximately 14 months for us to create the fish habitat on the south side of the river.
- Since 2014 we have been working to design fish habitat enhancements; this timeline was extended due to the 2018 Old Fort slide and reconsideration of an available enhancement location.

**7. Is the reason you are starting in March to avoid the bird nesting window?**

- Yes, we are starting work early so we can avoid the bird nesting window.

## Slope stability

**8. Has BC Hydro done a geotechnical study to confirm it is safe to work near the landslide? Will this project impact the landslide?**

- BC Hydro has undertaken engineering assessments of the planned works and determined that the works will not interact with the area of instability.
- The work is more than 700 metres horizontally from the closest point of the Old Fort slide area, and no active landslides were identified in the work area.
- The area of work activity is constrained to the gravel layer within the riverbed of the mainstem of the Peace River. The works will not extend deeper than the current maximum river depth in the area or disturb bedrock layers below the riverbed.
- BC Hydro was able to obtain agreement from the Department of Fisheries and Oceans to reduce the scope of the fish habitat works, eliminating the planned habitat in the “side channel” area, near the deposit area of the Old Fort slide.

**9. Does BC Hydro have a safety plan if the landslide reactivates? What is BC Hydro’s plan in terms of safety if there is a slide?**

- As the slide is outside the project boundaries and unrelated to our works, BC Hydro is not the lead for monitoring this area.
- If the slide were to reactivate, we would participate in any emergency response activities as requested by the Peace River Regional District (PRRD) and/or the Ministry of Transportation & Infrastructure as was the case previously.
- We would share any engineering information we have available and would look to support the PRRD where possible.

**10. Will there be erosion below our property after the project is completed?**

- The natural erosion processes that are presently taking place are expected to continue.
- We do not expect an increase in erosion due to the fish habitat enhancement works deepening of the main channel in the middle of the river acting to divert flows away from the backchannel.
- We anticipate that fish habitat enhancement works will result in flows through the backchannel decreasing slightly at low Peace River flow rates while remaining the same at average and high flow rates.

**11. If there is another slide, would the residents of Old Fort be allowed to use the construction access road created for the fish enhancement project?**

- If there were another slide, BC Hydro would work with the Peace River Regional District on options they might propose.

## Dust and noise

**12. Are there any health warnings that tells people to be inside if the monitoring station records higher amounts of dust? What is the plan to mitigate the noise and dust? How is the dust BC Hydro creates allowed?**

- The project's Environmental Protection Plan identifies steps that can be taken to minimize dust, such as:
  - Spraying water on haul roads and gravel areas.
  - Minimizing material drop heights.
  - Regular monitoring by both BC Hydro, contractors, and environmental monitors.
  - Using ambient sound back-up alarms on heavy equipment
  - Shrouding around any portable generators used early, or late, in the day
  - Keeping a vegetative strip between the community and work site.
- We are not expecting this work to be very dusty.
- Over the past several years, we have completed similar side channel and in-river excavations and because the material being handled is typically wet, we have not yet experienced dusty work conditions.
- Site C operates a continuous air quality monitoring program and performs regular dust suppression activities, such as application of water, or other stabilization products on roads at our construction site, which is informed by results of this monitoring.
- BC Hydro installed an air quality monitoring station at Old Fort in 2011 to collect baseline air quality data prior to construction.
- We continue to monitor air quality data from this station which is equipped with instruments that measure particulate matter PM2.5 and PM10, which is particulate matter of two different sizes. PM10 is typically what you observe as 'dust'.
- Air quality data from the Site C network is provided to the Ministry of Environment. Since 2016, real-time data from our air quality stations has been publicly accessible through the BC Ministry of Environment website.
- The Ministry of Environment makes this data available to the public and, in conjunction with Northern Health, is responsible for notifying the public of air quality advisories.
- Information on Air Quality Monitoring and how to access the data can be found on our website at <https://www.sitecproject.com/sites/default/files/Air-quality-monitoring-SiteC-information-sheet.pdf>

### **13. Are there public health guidelines for dust?**

- We follow the ambient air quality objectives set out by the province.
- On many occasions, the local airshed can be very dusty, or smoky, but our project is often only one of many contributors to the air quality issues.

### **14. There will be increased noise, dust, and traffic. How is this acceptable?**

- We are committed to mitigating the environmental effects from the Site C Project.
- We recognize this work will be disruptive to residents at times over the coming year and we are working to mitigate the impacts where possible.
- We have a regulatory obligation to enhance fish habitat in the Peace River before Site C becomes operational.
- Traffic on the Old Fort Road will not increase, since all hauling will occur from the construction area on the island to the dam site.

**15. What should we expect with this construction work at the island for noise from back up beepers?**

- We are committed to mitigating the construction impacts from the fish habitat enhancement works.
- Work will usually occur during daylight hours, seven days a week. Work outside of these hours will occur 24/7, similar to our operations at the dam site, for hauling from the far west deposit area.
- A variety of heavy equipment vehicles will be used. These include different types of on-and-off-road trucks, excavators, loaders, vegetation clearing machines, and graders.
- There will be increased noise and traffic along the access road in the local area.
- There will be no increased construction traffic along Old Fort Road, since all log and gravel hauling will take place within the project site.
  
- The project's Environmental Protection Plan identifies mitigations, such as:
  - Minimizing material drop heights.
  - Regular monitoring by both BC Hydro, contractors, and environmental monitors.
  - Using ambient sound back-up alarms on heavy equipment.
  - Shrouding around any portable generators used early, or late, in the day.
  - Keeping a vegetative strip between the community and work site.

**16. Will Old Fort Residents be compensated for impacts on our lives and putting our health and safety at risk?**

- BC Hydro provides compensation for direct, permanent impacts of the Project and implements mitigation measures, as described above, to address potential temporary impacts such as traffic, dust, noise, and light.

## **Waterfront access**

**17. Will we be able to launch a boat from our property this summer or will we need to find another location?**

- Access to the community by boat and use of the boat launch will not be affected by this work.
- Work will start at the east end of the island on the opposite side of the back channel from the Old Fort community and proceed west around the southern shoreline of the island.
- Our contractor will be placing "Hazard ahead/Work in progress" signage downstream of the work zone to warn approaching boater traffic of workers and equipment in the area.

**18. Will our children be able to play in the back channel and if so where?**

- Work will start on the opposite side of the channel from the Old Fort community and proceed west along the shoreline on the south side of the island, so there should not be any risk to children playing in the water directly adjacent to the Old Fort community.
- We will work to complete the initial work across the backchannel as quickly as possible to increase the distance we are from the community.

## Archaeology

### 19. Did you do archaeological surveys?

- Yes, BC Hydro is in the process of completing an archaeological assessment within the work area. Additionally, BC Hydro's contractor will follow Site C's heritage chance find procedures during construction.

## Post-completion

### 20. Will the fish habitat enhancement project be public in any way following construction?

- The public will be free to enjoy the habitat enhancement projects that we complete on public lands.
- For example, you are currently free to boat and fish in the side channel we completed a few years ago across the river.

### 21. What will the project look like when it's completed?

- The gravel bar excavation will be almost entirely underwater, so you will not see much.
- You will notice that during summer low flows, the gravel bar at 109L lower will be mostly submerged – this is beneficial for fish.

### 22. What happens to the beaver and otter that are in this area?

- We are not aware of any beaver lodges that would be affected by the proposed works.
- If we do encounter wildlife during the work, we have a team of biologists and wildlife experts who will assist with ensuring the wildlife are protected and relocate them if necessary.

## Property rights

### 23. We have not signed off on this like the rest of the property owners did. Will you be touching the bank on our property?

- The fish habitat work is taking place only within the existing river channel. The work will not be taking place on the bank adjacent to Old Fort and as a result, no private property rights are required.

### 24. Will BC Hydro be acquiring any property rights?

- BC Hydro will not be acquiring property rights, since the new area for the fish habitat enhancement construction is not taking place on, or adjacent to, any private property.
- BC Hydro did acquire rights from some owners adjacent to the backchannel when this project included work in that location. Those rights are not required to undertake this current work and no new rights over private land are required.

- Anyone interested in regaining ownership of riparian rights purchased by BC Hydro in 2016, or 2017 should contact the Site C Project team at [sitec@bchydro.com](mailto:sitec@bchydro.com), or at 1-877-217-0777.

## Regulatory permits

### 25. Who were the geotechnical engineers and what ministry approved permits?

- The fish habitat mitigation design was led by Northwest Hydraulic Consultants, with geotechnical support from Amec Foster Wheeler (now Wood). Slope stability reviews were completed by geotechnical engineers at BGC.

### Where are the permits? How many federal permits were needed?

Agency	Permit/Approval	Permitted Activity	Status
Ministry of Forests	Land Act Licence of Occupation	Land tenure to carry out activities	Permit issued*
	Forest Act Occupant Licence to Cut	Clearing vegetation	Permit issued
	Conditional Water Licence	Withdrawing water for dust suppression purposes	Licence issued
	Water Sustainability Act Approval for Instream Works	Excavating in Peace River	Permit issued*
	Water Sustainability Act Approval for Instream Works	Fording equipment across backchannels until bridges are constructed	Permit issued
	Water Sustainability Act Approval for Instream Works	Constructing bridges over two backchannel crossings	Application submitted
Transport Canada	Canadian Navigable Waters Act Approval	Approval for construction of bridge over navigable backchannel	Application submitted
	Canadian Navigable Waters Act Approval	Approval for in-river excavation activities	Permit issued
Dept of Fisheries and Oceans	Works are required as a condition of the Project's Fisheries Act Authorization. No additional Fisheries Act Authorizations are required. BC Hydro has submitted a Notification to DFO regarding the updated design of the works in accordance with the Project's FAA.		

\*Amendment information submitted to reflect updated design.