

**Site C Review - Responses to questions raised by Deloitte**  
**August 22nd, 2017**

**CONFIDENTIAL**

No.	
159	Date/Source of Question: Email from [REDACTED] August 22, 2017 at 9:06 am follow up from BCUC tour on 08/18/2017
	Response provided by: [REDACTED]
	Functional Approver: [REDACTED] / [REDACTED]
	<b>Question: Is there additional float in the schedule for diversion because of later peaking flows i.e. November instead of September?</b>
	<p><b>Response:</b></p> <p>River diversion requires construction of upstream and downstream cofferdams in order to divert Peace River flows through the diversion tunnels. Construction of the upstream cofferdam must be completed outside of the May through August period due to local flood risk, and outside of the winter period due to constructability and system reliability constraints. There would be increased risk to the cofferdam if construction were attempted during the local flood risk period.</p> <p>The design and construction of this structure has been carefully planned to mitigate construction and hydrology risks and impacts to the upstream generation facilities. The construction plan is reflected in the Main Civil Works Contract milestones which have seasonal constraints requiring a start of construction of the upstream cofferdam by September 1st of a given year. September 1st is expected to be the earliest opportunity to meet the design criteria of achieving a high likelihood of controlled low discharges from Williston Reservoir while managing the risk of high local inflows. The latest permitted start date for river closure is October 1st as a result of the following constraints:</p> <ul style="list-style-type: none"> <li>a) Requirement to reliably construct the upstream cofferdam to the final crest elevation prior to the start of the flood window the following year. Previous analysis has indicated that the current upstream cofferdam construction schedule is nearing the limit of what can be reliably constructed in the available window.</li> <li>b) Consequences to the BC Hydro Generation System to meet restricted flow requirements during winter. Extending restricted flow controls into the winter months will have a high likelihood of restricting upstream Peace discharges throughout the entire winter period due to the downstream ice formation. This imposed winter restriction would have a cascading impact on GM Shrum and Peace Canyon generation, and consequently system reliability during this winter season, since these two plants generally supply 1/3 of the BC Hydro load during the winter months.</li> </ul>