Addendum #1 April 16, 2009: Mid Columbia River Sturgeon Egg Mat Monitoring and Feasibility Study (CLBMON# 23)

A1.1 Addendum Rationale

Annual sturgeon spawn monitoring below Revelstoke Dam is required as part of the Columbia River Water Use Plan to document spawning events, timing, frequency, egg deposition, and habitat conditions. Due to the low numbers of aging sturgeon in Arrow Lakes Reservoir, it is likely that spawning events do not occur every year and events will gradually decline in frequency over time. In the past, spawn monitoring has occurred when tagged fish have been located close to the spawning site. As an alternative, the WUP Consultative Committee proposed that the feasibility of underwater videography be tested as a less intrusive means of monitoring staging and spawning activity. It was also proposed that substrate mats also be used to record actual spawning events, and allow for the collection of eggs for rearing and release in the mid Columbia River as part of the aquaculture program.

The initial field program was designed to encompass two key components: a two-year (2007 and 2008) study to determine the feasibility of using underwater videography as a means of detecting potential spawners; and spawn monitoring using substrate egg mats. Before the third year of the program (2009), the Technical Working Group (TWG) of the UCWSRI was to determine the most effective and efficient means of continuing to monitor spawning events. It was envisioned that this could include egg mats, videography, or a combination of the two methods.

The egg mat sampling and videography work was conducted as planned in years 1 and 2 (2007 and 2008) of the program. Both techniques were successful in collecting preliminary information related to monitoring spawning activity; however, these results did not provide conclusive evidence to support making a decision on a preferred method. As a result, BC Hydro is proposing to conduct an additional year of videography work to assess the feasibility of this technique as a monitoring tool, and to provide the TWG with the necessary information for recommending a design for long-term monitoring and an experimental flow release from Revelstoke Dam during the sturgeon spawning and incubation period.

A1.2 Budget

The original Terms of Reference assumed that a single monitoring method (i.e., egg mats) would be utilized in future years (2009-2016) of the program. Given the need to collect data over an additional year to better inform decision making by the TWG, BC Hydro is resubmitting the program budget to include the costs for further videography feasibility work in 2009. It is anticipated that BC Hydro would extend the existing contract with the consultants currently undertaking the work under CLBMON# 23 to ensure continuity across years. It is expected that BC Hydro would submit a new budget for 2010 to 2016 if the TWG recommends use of videography or a combination of techniques.

The project budget has been revised to reflect the amended scope of work for 2009 as detailed above. Consistent with the budgets for 2007 and 2008, the additional year of videography will cost an additional $97,623. However, BC Hydro did not use the 5% contingency that was built into the budgets for 2007 and 2008, and therefore is requesting only an additional $83,376 to the total previously approved budget. A breakdown of the costs by task is provided in the accompanying table.