

## **Addendum #2 Dec 17 2007 to: Monitoring Program #5 Big Falls Reservoir Tributary Backwatering Monitoring, dated October 2006**

### Background

The Fish and Wildlife Technical Committee for the Falls River WUP hypothesized that Dolly Varden char (*Salvelinus malma*) and cutthroat trout (*Oncorhynchus clarki*) may spawn in sections of tributaries that flow through the reservoir drawdown zone. The committee also hypothesized that the survival of these spawned eggs may be negatively affected if backwatering or inundation of the connecting tributaries occurs when reservoir levels rise. To minimize this risk, the Consultative Committee (CC) recommended a reservoir operating alternative that maintains high reservoir levels, by installing flashboards at the Dam, during the cutthroat trout spawning period only. However, it was uncertain whether Dolly Varden or cutthroat spawn in these sections, and the CC also recommended an associated monitoring program to determine whether Dolly Varden and cutthroat spawn in these sections. It was recommended that these sections be surveyed for the presence of Dolly Varden and cutthroat spawners during their respective fall and spring spawning periods. However, during the preparation of the original Terms of Reference for this program the flashboard operations during the spring would limit the ability to survey for cutthroat spawning in the spring.

As a result of mechanical issues that were uncovered during operation of the flashboards that raised dam safety concerns at the Big Falls Dam during spring 2007, it will not be possible to install flashboards as per the schedule in the Falls River Water Use Plan (WUP) until mechanical upgrades can be completed. These upgrades are not scheduled to be completed for several years. A request for a Water Licence variance for the operations of the flashboards was submitted to the Comptroller of Water Rights on Sept 27, 2007 via e-mail from Peter McCann, BC Hydro Operations Planner.

This change in reservoir operations and resulting lower reservoir elevations in the spring means that it will now be possible to survey for cutthroat spawning in the drawdown zone during their spawning period, and collect the information that was originally requested by the CC. A revised monitoring plan is outlined below.

### Task A3-1 Observing evidence of spawning

As per Task 3 of the Terms of Reference, the drawdown zone for all three tributaries will be examined for evidence of cutthroat and Dolly Varden spawning during their respective spawning periods.

To accommodate the additional cutthroat survey, the original effort for Dolly Varden will be extended over the cutthroat period. To accommodate province wide resource limitation currently being experienced within the agencies, Comptroller of Water Rights office, and BC Hydro, this study has been postponed to take place in 2010. If the flashboards are slated for installation prior to winter 2011, this study will take place earlier.

**Table A3-1: Estimated Budget for the Big Falls Reservoir Tributary Backwatering Monitoring.**

	<b>Year 4</b>	<b>Total Cost</b>
<b>Total</b>	\$29,473	\$29,473

Note: Shaded cells represent cost adjustments since previous cost estimate (Oct 2006). The cost adjustments for this study are limited to adjustments for inflation.