

## **Addendum #1 Dec 24 2007 to: Monitoring Program #4 Big Falls Reservoir Sedge Habitat Maintenance Monitoring, dated October 2006**

### Background

The Fish and Wildlife Technical Committee for the Falls River Water Use Plan (WUP) hypothesized that the sedge community in the Big Falls Reservoir is maintained by periodic inundation when the flashboards are installed at the Big Falls Dam. The committee recommended flashboard operations to help maintain the sedge community as well as an associated monitoring program to monitor the response of sedge and provide information to test the inundation hypothesis.

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. Vegetation sampling was completed during the summer of 2007 as per year 1 of the Terms of Reference. This sampling was completed prior to notification that there would be issues with operation of the flashboards in the future.

The change in reservoir operations will affect the sampling schedule for monitoring the response of the sedge community to flashboard operations. In light of the new schedule for flashboard and reservoir operations, a revised monitoring schedule that will address the Hypotheses and Management Questions is outlined below. Briefly, the new schedule involves repeating the vegetation survey prior to the start flashboard operations, and again 5 years after implementation of flashboard operations. 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.

The Fish and Wildlife Technical Committee expressed an interest to maintain the sedge community that was present at the time of the WUP (2002). However, the sedge community was not monitored in 2002. The first quantitative measures of the sedge community occurred in 2007, and the sedge community may have changed since 2002 given revised flashboard operations since 2002. To help provide inferences on the community that may have been present during the WUP, the first year of sampling examined these revised operations and estimated the associated potential changes to the vegetation present in 2007. These points are discussed in the Year 1 report (in prep).

### Task A2-1 Measure reservoir vegetation and reporting

In order to help understand the effects of flashboard operations on reservoir vegetation, the Fish and Wildlife Technical Committee recommended that reservoir vegetation be surveyed prior to, and 5 years after implementation of flashboard operations, as outlined in the original Terms of Reference. To document the vegetation community in the year prior to start of flashboard operations, the vegetation community will be surveyed in Year 5 (2011) as per the sampling outlined in Tasks 2 to 5 of the Terms of Reference. For the purposes of this document, this monitoring is estimated to occur during fall of Year 5 (2011) prior to flashboard operation in spring of year 6 (2012). A summary data report for this data will be

prepared as per Task 6 of the Terms of Reference. However, if flashboards are installed earlier or later, the Year 5 work will be adjusted accordingly.

To document the response of reservoir vegetation to flashboard operations, the vegetation community will be re-surveyed five years (five growing seasons) after the implementation of the flashboard operation. Re-surveying vegetation five years after implementation of operations is consistent with the monitoring plan recommended by the Consultative Committee, and is consistent the multi-year response time of vegetation communities. For the purposes of this document, this re-surveying is estimated to occur in the fall of Year 10 (2016).

Results from all years of monitoring will be summarized in the final report in Year 10. Information collected in Year 1 will supplement information collected in Year 5 to document conditions prior to the start of flashboard operations.

**Table A2-1: Estimated Budget for the Big Falls Reservoir Sedge Habitat Maintenance Monitoring.**

|       | Year 1   | Year 5   | Year 10  | Total Cost |
|-------|----------|----------|----------|------------|
| Total | \$32,611 | \$34,471 | \$38,059 | \$105,142  |

Note: Shaded cells represent cost adjustments since previous cost estimate (Oct 2006).