

## ENVIRONMENT AND SOCIO-ECONOMIC

### Fish and Aquatic Habitat

**Report:** **25. Site C Fisheries Studies – Baseline Peace River Tributaries Fish Use Assessments in Spring and Fall 2008**

**Prepared by:** Mainstream Aquatics Ltd.

**Summary:** The purpose of this study was to continue to build upon previous fisheries investigations describing fish use and habitat characteristics of the Peace River tributaries upstream of Site C that were completed in 2005 and 2006. The study objectives were to determine the relative numbers, duration, and timing of upstream fish movements in spring and fall.

The study focused on spawning large-fish species such as spring spawning rainbow trout, longnose and largescale suckers and fall spawning mountain whitefish. Mountain whitefish egg surveys were conducted in the Moberly and Halfway rivers to confirm the presence and extent of mountain whitefish spawning. Large numbers of fish were captured in the spring sampling program and mountain whitefish fall spawning was confirmed in the Halfway and Moberly rivers.

In spring 2008, a total of 5,878 fish representing 20 fish species were recorded in the study tributaries; 11 of these species were adult fish in spawning condition, indicating numerous fish species use tributaries for spring spawning. During the fall program, 1,961 fish were sampled in the Moberly and Halfway rivers, with mountain whitefish and redbreast shiners dominating the catch. The fall program established that mountain whitefish originating in the Peace River spawn in the Halfway and Moberly rivers, and confirmed they did not spawn in the smaller tributaries.