



Lake Country Intake OBWB Grant Progress Report Aug 24, 2009

Larratt Aquatic was retained by District of Lake Country to evaluate source quality and protection measures needed by the Okanagan and the Kalamalka Lake intakes operated by Lake Country. Larratt Aquatic was chosen because of their 10 year history collecting and interpreting water quality data on both intakes.

The purpose of this study was to collect all available information into the Source to Tap Assessment format for use in identifying the intake's strengths, liabilities and for planning water quality protection and improvement. The important data gaps were identified and research to fill them was planned for the study period. These are: long-shore currents that could transport contaminants to the intake, contaminants from sediments beneath the intakes and the serious but unlikely presence of human septic wastes as measured by Cantest's caffeine analysis.

Since the inception of the project, Larratt Aquatic has completed three drogue studies of lake currents on Kalamalka Lake and two on Okanagan Lake in the immediate vicinity of the intakes. Microfloral samples, thermistor data, light data, and water quality samples have been collected, analyzed and recorded in 2009.

Through late summer and early fall, more drogue studies and sampling is planned. Larratt Aquatic will also be sampling sediments from under the intake and collecting caffeine samples from the intake raw water. After the field season is complete, a meeting with Lake Country will be convened and the data reviewed. Lake Country can also provide their knowledge of potential contaminant contributions near the intake sites. All stake-holders will be invited to attend a meeting to review the draft report late in 2009.

The Deep Okanagan Lake Biology Study is complete and will be utilized in this study. The July 10 drogue study encountered a light cyanobacteria bloom in the N basin near the intakes (photo below).

The largest obstacle encountered to date is the number of water-ski boats using the intake area on Kalamalka Lake in July and August. Even early in the morning, there are too many boats to deploy the drogues without presenting a hazard to water-skiers.

Larratt Aquatic has not encountered any problems with the OBWB grant application process. Compared to other grant applications available today, the OBWB process is stream-lined and easy to follow. The OBWB staff is very helpful, knowledgeable, and patient.

PHOTO: July 10 Plankton hauls from Okanagan Lake at the Lake Country (McCoubry Rd) and GEID McKinley Landing Intakes. Note the green ring of cyanobacteria



Heather Larratt, R.P. Bio.

Heather Larratt