

Live Liquid Micro-Organisms (LLMO) for Pond Restoration

Phyllis Day Chief, Advanced Water Technologies (AWT)

Advanced Water Technologies (AWT) was recently recognized by the National Research Council of Canada (NRC) as a, ‘Canadian Innovation Leader’ for its introduction of Live Liquid Micro-Organisms (LLMO) as an environmentally-friendly, cost-effective means for lake/pond restoration and beautification. The LLMO acts on the system, providing a healthier environment for fish and wildlife, reducing complaints concerning water clarity, unpleasant odours and sludge build up.

Partnerships were a key element in the successful development of the LLMO applications, which ironically, began with a product developed for wastewater facilities, and through eight years of Canadian research and creative partnerships, LLMO has been shown to be effective in remediating storm water ponds. The National Research Council (specifically Industrial Research Assistance Program, IRAP) has been involved from the ground floor – from the patent search right through to the applications and associated research in three major Alberta cities: Calgary, Edmonton and Lethbridge. As well, learners from the Environmental Science Program at Lethbridge College have contributed to the data collection. Currently, AWT is working with the National Research Council and the University of Manitoba in a Master’s degree study, which will determine the effectiveness of the LLMO-treated water as a natural fertilizer. Finally, AWT is exploring the possibility of a study with the Western Irrigation District, related to using LLMO in irrigation holding ponds and canals. This presentation will illustrate the success of the process through a case study and review the partnerships that contributed to the successful application of the LLMO.

Dr. Phyllis Day Chief

With almost 30 years teaching experience, Dr. Phyllis Day Chief is a true entrepreneur who has a passion for the environment. For many years, her area of expertise has been technical writing: brochures, proposals, annual reports and newsletters. However, with the evolution of Advanced Water Technologies (AWT), she finds herself writing “white papers,” progress reports, promotional materials and policy manuals. A strong sense of environmental responsibility, supported by an excellent technical team, makes AWT the ideal challenge for Dr. Day Chief.