

## From Golf Balls to Wetlands

What do you do with a class of twenty eager 4<sup>th</sup> year Ecological Restoration students from BCIT? Restore/create wetlands of course. That's just what happened in September 2013 at Logan Lake. The Logan Lake Enhancement Group (LLEG) continued a partnership with BCIT in a week long outdoor classroom project aimed at restoring/creating wetlands on the Meadow Creek Golf Course, on the inlet, just upstream of Logan Lake. Armed with hard hats, safety vests, notebooks, shovels, rakes and gumboots, these students, their instructors and members of LLEG immersed themselves in the black organic soil to learn all about wetlands. Wetlands that function properly are natural purifiers of water. When the Golf Course was constructed in the mid 1980's, the rich organic soil that wetlands contain was an easy source of material for building greens and fairways.

Every good project needs a competent leader and ours was none other than wetland expert Tom Biebighauser, a retired Wildlife Biologist from Kentucky, who has restored/constructed over 1600 wetlands all over the States and BC. The students provided the many hands required to do the pre inventory of water sampling, vegetation, small mammals and birds as well as site surveying. The rough work of digging ponds, contouring the soil, "planting" the snags and placing the rocks was done by heavy equipment and then the students moved smaller woody debris, planted salvaged and nursery stock vegetation and spread peat, straw and wood chips. This experience has many benefits; hands on learning about restoration techniques for students, restoring the wetlands on the Golf Course to a more natural state to improve water quality downstream in Logan Lake and create valuable habitat for wildlife in the area.

Water quality problems, such as high pH, high nitrates and high salt, exist in Logan Lake. These problems originate upstream of the lake and the fact that wetlands on the Golf Course were impacted wasn't helping the problem. The idea of restoring/creating wetlands all started as a result of the Wetland Institute in Kamloops in June 2010 and consequently the LLEG wanted to experiment with wetlands to see if we could have a positive impact on downstream water quality. A partnership with BCIT formed and a small 800m<sup>2</sup> test wetland complex was constructed upstream of the Golf Course in 2011. By utilizing peat, which is very acidic, to lower pH, native riparian vegetation to take up the nitrates and working with the Department of Transportation and Highways to remediate the salt shed site upstream we have been amazed at the improvements in water quality our initial wetland created.

The LLEG received generous funding from Teck Highland Valley Copper in 2011 for ongoing habitat restoration in the Logan Lake watershed and were also successful in receiving funding from the Habitat Conservation Trust Foundation in 2011 and 2013. The partnership with the Ecological Restoration Program at BCIT and longer term funding has provided stability for planning and future classes. Stay tuned!