

Reuse and Recycle, Lumber to Go

Metro Vancouver's Watershed Management Division employees have been working on a unique portable milling project that is reusing old bridge stringers and proving to be both environmentally and economically sustainable...



Metro Vancouver's Watershed Management Division now has lumber readily available, thanks to a pilot project that reused old log bridge stringers and windfall by milling them on-site via a portable mill to produce ready-to-use, high quality wood for in house projects.

Lumber is purchased annually for projects at a premium cost from lumber stores or mills. This lumber is needed to build boardwalks, pedestrian bridges, kiosks, mountain bike trails, stairs and retaining walls. Feasibility testing through a pilot project of milling dimensional lumber is something that the Watershed Management Division has been keen on doing for a number of years.



Above: Typical log bridge. Watershed staff have found a way to reuse these logs as these bridges are decommissioned, using a portable mill.

As the Division de-activates unused logging roads within watershed lands, the old log bridges also need to be removed. This leaves cedar and fir logs that, with some prep, can be milled down into usable lumber. During winter storms, trees come down across active roads and trails blocking access. Trees or portions that fall off the trails and roads are left to rot naturally, replenishing the natural cycle, but the portion on the roads or trails produces a small amount of usable wood can be salvaged for milling.

In 2008, in preparation for this pilot project, staff began stockpiling wood in 2008. Staff ensured that as the bridges came apart, and wind thrown logs were cleaned up, then the logs were sorted and put aside for the project. The project took very little additional staff time, particularly as log removal is already part of day-to-day operations. Once the logs were at the portable mill site, a metal detector was used to find any nails or spikes which were then removed. A contractor was sourced out who had experience milling this type of "utility grade" wood. Everything was milled right on site, and produced wood to the exact specification we required. What would normally have been considered waste



Above: Winter storm in LSCR brings trees down considered across the Seymour Valley Trailway

including the sides of logs, cracked lumber, etc to be used on smaller projects throughout the LSCR. The goal was to use the entire product in the most effective way.



Above and Side: The portable mill. Logs are placed directly onto the mill, and can be cut into the specifications needed.

The portable milling project has proven to be a success. As a division, watershed staff have been exploring ways to reduce, reuse or recycle and milling old bridge stringers turned out to be a natural fit.

So far decking has been milled out for the refurbished 76 metre Bear Island Bridge set to be installed in late summer 2011 in the LSCR and they have stockpiled enough wood for 2011 projects on the Grouse Grind and throughout the LSCR.