

MONITORING TO IMPROVE MANAGEMENT: RIPARIAN BUFFERS AND STAND STRUCTURE IN THE BABINE

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Monitoring is useful if it increases knowledge about how management strategies affect objectives and if this knowledge is used to improve management. The Babine Watershed Monitoring Trust selects projects that are likely to increase knowledge. The ultimate success of their monitoring programme depends upon whether the increased knowledge improves management. I will present results from two projects and discuss implications.

The first study assessed the status of riparian forest around unmanaged and managed streams in the Nichyeskwa watershed. We used a combination of existing forest cover data, new remote photos and limited field checks to document forest age, stand structure and windthrow around different types of streams. Results showed that current risk to riparian forest within 60-m ribbons is low: forest around most stream types deviated less than 30% from natural; windthrow was rare. These results confirm existing management strategies for leaving riparian buffers.

The second study documented structural legacies left by natural disturbance. We measured live and dead standing stems and downed wood on all easily-accessible, unsalvaged natural disturbances originating within the past 50 years in the SBSmc2 and ESSFmc around the Babine watershed. Immediately following disturbance, fire left the most snags and wind created the most downed wood. Wind and beetles left more large than small snags and downed wood. A continuation of this study (currently being analysed) suggests that retention in managed stands is considerably below natural levels. Further investigation of the ecological consequences of this finding will be necessary, considering the role of stand retention in the context of landscape reserves and mountain pine beetles.