Guest Editorial

Accepting the challenge and breaking the trail

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As I sit in my office and look out at the forested slopes of the Robson Valley, I can't help but reflect on my own personal journey over the past 5 years. I knew when I first came to the Robson Valley Forest District that managing for sustainability would not be without its challenges: 20% of the land base was in protected areas; a non-consensus Land and Resource Management Plan was in place; high biodiversity, recreation, and visual values were a feature; a declining allowable annual cut was projected; and high, non-recoverable losses had occurred (due, in part, to a large outbreak of hemlock looper). But as is so often the case, these challenges became an opportunity when the Robson Valley Forest District was awarded an Enhanced Forest Management Pilot Project[2] (EFMPP) in 1999. It was our chance to break trail!

So how do you take a forest management regime governed by the *Forest Practices Code* up a level and manage for sustainability? In a recent *BC Journal of Ecosystems and Management* (*JEM*) editorial (Vol. 2, No. 1), **Jack Blaney** stated his belief that sustainability was about integrating economic, social, and environmental considerations into all of our planning. To do that, we needed to capture baseline information and be grounded in science.

The papers presented in this special issue of *JEM* accomplish both. Emanating from research projects undertaken through the EFMPP, they provide important science-based information on environmental, economic, and social considerations in the former Robson Valley Forest District.

On the environmental side, several studies quantify areas of importance for specific wildlife species and another provides baseline inventory data on plant and fungal species of potential commercial importance. **Dale Seip** surveyed mountain caribou distribution and abundance over three consecutive winters in the Robson Valley Timber Supply Area (TSA). His work has helped determine whether caribou habitat management zones are located in the most appropriate places. **Kirk Safford** presents a similar study aimed at modelling critical ungulate winter range for mule deer, white-tailed deer, Rocky Mountain elk, and moose. Through field evaluation, he was able to point out limitations of the model and suggest how it can best be used. **Ray Pillipow** and **Cory Williamson** conducted biotelemetry and spawning assessments of the blue-listed bull trout in the Goat River watershed. Their research provides clear management direction for forestry activities in the area; it also ensures that the risks of bull trout over-exploitation and habitat degradation are minimized or eliminated. To support the sustainable development of non-timber forest products (NTFP) from the Robson Valley TSA, **Tyson Ehlers**, **Shannon Berch**, and **Andy MacKinnon** inventoried all NTFP plant and fungal species. Their findings indicate that to develop sustainable management strategies, future research should focus on individual species information.

Still on the environmental side, two landscape-level studies focus on natural disturbance scenarios and on old-growth management. **Glenn Sutherland**, **Marvin Eng**, and **Andrew Fall** developed a spatio-temporal landscape model to assess the effect of uncertainties, generated by timber supply policy drivers and three stand-replacing natural disturbance agents, on indicators of forest sustainability. Their study offers important insights into the interaction of these agents and provides valuable input for the design of sustainable management policies and the determination of allowable annual harvest rates. To determine whether mapped age classes truly reflect appropriate candidate areas for old-growth management, **Craig DeLong**, **Philip Burton**, and **Michelle Harrison** examined ecological characteristics of older stands in the Robson Valley TSA. Their paper presents a rank scoring system that can be used to assess the value of old forest stands as wildlife habitat.

Three of the EFMPP studies in this issue highlight economic and social considerations in the Robson Valley. A team from the Canadian Forestry Service in Edmonton (**Amanda Moon**, **Mike Patriquin**, **William White**, and **Michelle Spence**) gathered data on the regional economy of the Robson Valley Forest District. Here, they present findings on the contributions of the forestry, visitor, public, and agriculture sectors to the regional economy—information that is necessary to assess future responses to internal and external changes within that economy. As they so aptly point out, "a comprehensive understanding of the mechanics of an economy facilitates decision making."

David Watson, **Bonita McFarlane**, and **Michel Haener** took a different approach and studied the human dimension of biodiversity conservation. Their report documents stakeholders' understanding and perceptions of biodiversity issues, examines potential trade-offs associated with conservation, and provides decision makers with insight concerning the acceptability of potential forest management scenarios. Their results suggest that stakeholders need more information about forest management practices, and about the effectiveness of forestry practices in conserving biodiversity.

Finally, **John Parkins**, **Jeji Varghese**, and **Richard Stedman** provide a methodology for developing local-level indicators of community well-being and sustainability. Through workshops, interviews, and a mail survey they were able to develop indicators and measures of primary interest to the communities within the Robson Valley TSA.

So what did we learn through the Robson Valley EFMPP and how can this information affect important policy decisions in British Columbia? Perhaps of greatest significance are the various indicators we've developed to measure sustainability. While the information collected under the Robson Valley EFMPP is specific to this area, the lessons learned here and the methodologies followed have application throughout British Columbia and other jurisdictions with similar ecosystems and issues. While tackling the TSA as a whole made for some monumental challenges, it has also paved the way for the development of defined forest area management (DFAM) and sustainable forest management planning under the new forest legislation. Through the use of modelling and follow-up field verification, we have been able to test various management scenarios without any detrimental effects to the land base. Management of the TSA must move toward spatially explicit modelling so that we can refine aspatial model assumptions and tie current management activities to predictive sustainable forest management plans. We must also develop key indicators of sustainability to monitor our progress and achievements.

The Robson Valley EFMPP was a unique journey into the environmental, economic, and social bases of sustainability. Although it must necessarily be a journey without end, the trail has been broken if others are willing to follow.