## **Managing Editor's Report**



Marilyn **Bittman** 

ur research community continues to grapple with the current and projected environmental consequences of climate change. This issue of JEM features a collection of extension notes and articles from a broader publication, "FORREX Series 28," a collaboration between the Future Forest Ecosystem Scientific Council (FFESC) and the Forum for Research and Extension in Natural Resources (FORREX) that addresses environmental issues related to climate change.

**Al Wiensczyk** describes, in his Guest Editorial, how natural disturbance regimes will continue to shift through climate change, especially in British Columbia. His editorial outlines how the feature article in this issue of *JEM* by **Kathie Swift**, "Decision Support Framework: A Mental Model for Integrating the Environmental and Human Dimensions into Decision Making Related to Changes in Natural Disturbance Events," provides helpful knowledge and support to key individuals within the field. These individuals are already facing the challenges of adapting to post-disturbance land management decisions and activities within climate change-related shifts in natural disturbance regimes.

Swift's "Decision Support Framework" was developed specifically to help meet these challenges. Her article also discusses how current and projected changes in natural disturbance are being linked with existing decision frameworks within government and forest companies in British Columbia. This piece is the backbone of this issue of *JEM* and is supported by several extension notes and articles, providing detailed information to assist natural resource managers, policymakers, and others working within this changing environment. Among the articles are a number of helpful topical syntheses that define and quantify the potential effects of major disturbance types and the incremental effects of management decisions on natural and human systems. In their articles, *JEM*'s authors address watershed values, forest succession, forest carbon, biodiversity, as well as social, economic, and cultural communities.

A research report by **Sean Haughian, Philip Burton, Steve Taylor,** and **Charles Curry**, "Expected Effects of Climate Change on Forest Disturbance Regimes in British Columbia," synthesizes the literature on the expected shifts in the frequency and severity of major natural disturbance events associated with British Columbia's changing climate. The article provides readers with an understanding on how to apply the "Decision Support Framework."

**Todd Redding, Suzan Lapp,** and **Jason Leach's** article on "Natural Disturbance and Post-Disturbance Management Effects on Selected Watershed Values" summarizes the key findings around the "effects on hydrologic processes and watershed functions" following post-disturbance activities. The authors emphasize how having this information





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readily available is important to the effective management of our watersheds. Temperature and water are also the focus in "Successional Responses to Natural Disturbance, Forest Management, and Climate Change in British Columbia Forests." In this extension note, **Kathie Swift** and **Shikun Ran** examine how projected changes in temperature and precipitation may affect the natural disturbance drivers within our environment that affect forest renewal.

Biodiversity plays an integral role in British Columbia Forests and expert biologists, **Don Gayton** and **Pedro Lara Almuedo**, take a close look at how biodiversity can be managed and enhanced in their extension note, "Post-Disturbance Management of Biodiversity in BC Forests." Although their article is a condensed version of the original synthesis, it provides valuable insight into the reasons why "biodiverse ecosystems are resilient and better able to respond to changing conditions." Another extension note responding to the delicate balance of our environment is an article by **Kathie Swift**, "Forest Carbon and Management Options in an Uncertain Climate." This article looks at how forested ecosystems are the necessary "sink for carbon now and into the future." She speaks to forest managers and the decision-making they will need to provide as our forests change due to our changing climate.

Communities are also affected by our changing environment. **Ajit Krsihnaswamy, Ellen Simmons,** and **Larry Joseph** examine how economic, social, and cultural aspects of life are closely linked to the local environment and climate. Their article, "Increasing the Resilience of British Columbia's Rural Communities to Natural Disturbances and Climate Change," looks at the impacts of wildfires and their cascading and unpredictable effects, leaving First Nations communities vulnerable.

The value in supporting decision-makers by providing them with relevant information is key within the papers of *JEM*, and in a similar vein, a number of LINK News articles featured in this issue introduce us to initiatives designed to support decision-makers in a variety of areas. For example, **Pedro Lara Almuedo**, **Rich Weir**, **Fraser Corbould**, **Larry Davis**, **Eric Lofroth**, and **Mark Phinney** inform us that fishers, carnivores of the weasel family, are considered a species at risk in British Columbia. Their LINK News article "Putting Knowledge to Work: The Fisher Habitat Extension Initiative" explains how this extension program was specifically designed to help decision-makers ensure that sufficient fisher habitat is conserved, recruited, and enhanced to sustain their populations in British Columbia.

In **Don Gayton's** "New Research on an Old Weed," we move from the survival of an endangered species to the prevention of further invasion by a species. He explains how the infestation of cheatgrass has spread across western North America over the past hundred years. Given that many observers feel that cheatgrass is on the rise in our province, Gayton proposes that British Columbia take a look at the ways in which others in the scientific community have addressed this pest's ecology and control.

Moving to a natural resource that has the potential to affect us profoundly in this era of climate change, **Suzan Lapp** and **Allan Chapman** talk water. Their LINK News article, "Hydrology Modelling and Decision-Support Tool for Northeast British Columbia," speaks to a project that was developed to assist with future water decisions in the northeast area of the province. Another LINK News article focuses on the broader Canadian forest environment; "Forest Change: An Initiative of the Canadian Forest Service of Natural Resources Canada for Enhancing Forest Sector Competitiveness in a Changing Climate" was written by researchers from the **Canadian Forest Service**, providing information around the initiatives' development while discussing its main deliverables. The project



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itself was developed by the Canadian Forest Service of Natural Resources Canada to support adaptation in Canada's forest sector.

Finally, we move to the underbelly of the forest industry with **Ellen Simmons'** LINK News article, "Non-Timber Forest Resources – What Is in This Term?" Her article contemplates the meaning behind the phrase "non-timber forest resources," particularly in the context of its use within First Nations communities. As the title indicates, Simmons is addressing ambiguities that have arisen from the use of the term, attempting to clear obstacles that may exist in understanding how to manage our forests in an ethical and sustainable way.

Many of you will have noticed that the current articles that have been posted online in this volume of *JEM* have a new look. We are in transition, moving away from print journals. At the end of 2011, a thoughtful examination of the old JEM design was evaluated by a focus group to assist in the redesign of JEM. Brian Hydesmith, a well-established designer, presented a prototype that implemented changes to help bring JEM into the twenty-first century with a design more conducive to the future use of mobile devices. This year's subscribers will continue to receive a print version, but the print component of JEM will be phased out; the last print version will be Volume 13, Issue 3. This transition speaks to the future and FORREX's continuing commitment to share environmental knowledge, management, and discussion, as well as take action to reduce our own carbon footprint.





