September 2007

"protecting Canada's valuable water resources"

STATE OF KNOWLEDGE – WATER RESOURCES

SFMN State of Knowledge (SoK #9)

News and Notes

The **purpose** of this newsletter is to provide project participants and supporters with detailed information about our progress to date and future directions. Expect to see a newsletter every four months!

SoK workshop:

This meeting marked the third time the core group of the Sustainable Forest Management Network funded State of Knowledge (Water resources) project participants met, this time as part of a one-day workshop at the University of Western Ontario, in London, Ontario on September 21st. The broad goal of the workshop was to start a discussion on the scope and form of the synthesis report.

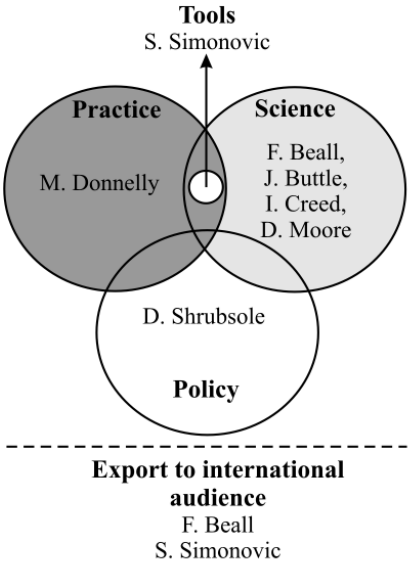
KEY OUTCOMES:

- Before embarking on adapting a framework for the synthesis report, the input of project partners will be essential! (Please see second page for more details).
- The report will be written with one voice but different people will take the lead on various sections. The goal is to make it accessible to scientists, policy makers and managers alike.
- The report will be wrapped around four fundamental concepts considered in resource management: complexity, change, uncertainty, and conflict.
- The report will include guest opinions from partners, and will be illustrated with specific case studies throughout.
- The length of the report is expected to be between 60-100 pages.

Implications of forest management activities on water resources under a changing global climate

Water is, or could become, the most valuable product of many forested landscapes across the country. Forest management activities at stand and landscape levels can have significant impacts on the quantity and quality of surface and ground water. These impacts have many secondary effects on various downstream users of water. This project is aimed at generating a synthesis of knowledge and expert opinion about the relationships between various forest land uses and down-stream water yield and water quality, within the context of climate change. (from project proposal)

Principal investigators for SoK



Inside this issue

Next issue: January 2008

- Final core and steering group approved format and general content of report.

SoK workshop: What will our synthesis report look like?

A key outcome of the meeting in London was a conceptual framework for the synthesis report. We suggest to organize the synthesis around four fundamental and interrelated facets of resource management: *complexity*, *change*, *uncertainty* and *conflict* (B. Mitchell, *Resource and Environmental Management*, 2001). We will discuss the interplay of science, management approaches, tools, management practice options and research needs as they relate to each of these categories (Table 1). ***Complexity*** is the facet of resource management which recognizes the deep and wide-ranging interrelationships in the natural environment and in the interface between the natural world and humans. Experience demonstrates that resource management decisions often have unintended consequences due to the multiplicity of variables involved and unforeseen interactions. ***Change*** encompasses the changing needs and expectations of stakeholders, as well as changing economic conditions and the change brought about by increasing knowledge of ecosystems. For example, in a recent survey of Canadians' attitudes towards resource industries showed that Canadians now value the ecosystem benefits of forests more than the economic benefits. ***Uncertainty*** is the aspect of resource management where decisions have to be made in the face of incomplete knowledge and understanding. The broad outlines of climate change have been predicted but there is a considerable range in the predictions and, at the local scale, there is almost no confidence in what the prevailing climate may be in 50-100 years. ***Conflict*** is often the dominant feature of resource management issues and arises from differences in understanding, values, distribution of benefits and/or historical perspective. Many examples could be cited, such as timber vs. caribou or Aboriginal land claims, of conflicts over resource management and they are often the most visible face of the accumulation of change, complexity, uncertainty and conflict in resource management.

COMPLETED PROJECT MILESTONES:

- Conceptual framework for SoK.
- Annotated bibliography to support writing of SoK.
- Synthesis of provincial and territorial guidelines.
- Draft Table of Contents (to be presented at the combined core and steering group meeting).

Next steps:

- We feel it is **critical** that the steering group and core group meet face-to-face (or conference call) to finalize conceptual framework and initiate surveys and interviews for report.
    - We ask members of both the steering and core group to **email** Dr. Creed regarding the need for a 1 day meeting in London, Ontario and if yes, your availability between **October 9 to November 12.** Please indicate the best 5 days for both a face-to-face meeting and a conference call so we can accommodate as many as possible.

Table 1: Proposed conceptual framework for SoK report.

State of science, policy, practice (planning and operations)					
	Science	*Approaches (Policy & strategies)*	*Tools (planning)*	*Management Practice Options (operations)*	*Needs (Research & Monitoring)*
Ideas considered under each of: complexity, change, uncertainty, and conflict	Reference conditions Effects of natural disturbance on reference condition Management effects on reference conditions	Rule based Ecosystem based Participatory Risk Adaptive management	Data and tool availability Decision Support Systems & Models	Alternate strategies	

Features that will be included in the SoK:

Case studies
Boxes:

- Highlights
- Definitions and concepts
- Contentious issues … state of thinking and debate
- Key Messages
- Sidebars
- Guest statements

Contacting SoK researchers and partners

The SoK (Water resources) project is a large collaborative project with a core group of 6 Principal Investigators, 2 Research Associates, 1 PhD student and a steering group comprising aboriginal groups, governments and industries. If you are interested in exploring collaborative work within SoK, please contact project director, Dr. I. Creed.

Core group

Name	Institution, Department	Telephone, email
Principal Investigators		
Fred Beall	Canadian Forest Service, Great Lakes Forestry Centre	(705)-541-5553, fbeall@NRCan.gc.ca
Jim Buttle	Trent University, Geography	(705)-748-1011, ext. 1475, jbuttle@trentu.ca
Irena Creed	The University of Western Ontario, Biology	(519)-661-4265, icreed@uwo.ca
Margaret Donnelly	Donnelly Ecological Services Limited	(902)-837-1090, margdonn@ ns.sympatico.ca
Dan Moore	University of British Columbia, Geography	(604)-822-3538, rdmoore@geog.ubc.ca
Dan Shrubsole	The University of Western Ontario, Geography	(519)-661 3126, dashrubs@uwo.ca
Slobodan Simonovic	The University of Western Ontario, Civil and Environmental Engineering	(519)-661-4075, simonovic@uwo.ca
Highly Qualified Personnel		
Seneca Sanford	The University of Western Ontario, Biology	ssanfor2@uwo.ca
Mohammed Khaled Akhtar	The University of Western Ontario, Civil and Environmental Engineering	makhta@uwo.ca
Tracy Malakof	The University of Western Ontario, Biology	tmalakof@uwo.ca

Steering group

Institution	Contact person	Telephone, email
Aboriginal groups		
National Aboriginal Forestry Association	Harry Bombay, Executive director	(613)-233-5563, nafa@web.ca
Métis National Council	Donald Sharp, Director of environment	(613)-232-3216, donalds @metisnation.ca
Governments		
Natural Resources Canada, Canadian Forest Service	Fred Beall, Scientist	(705)-541-5553, fbeall @NRCan.gc.ca
Environment Canada, National Water Research Institute	Garth van de Kamp, Research scientist	(306)-975-5721, Garth.Vanderkamp @ec.gc.ca
Government of Alberta, Sustainable Resource Development, Forest Management Branch	John Diiwu, Hydrologist	(780)-644-5112, johndiiwu@ gov.ab.ca
Government of Ontario, Ministry of Natural Resources	Ed Iwachewski, Scientist	(807) 343-4024, Ed.iwachewski@ mnr.gov.on.ca
Industry		
Abitibi-Consolidated Inc.	Paul Poschmann, Divisional forester	(807)-683-6360, paul_poschmann@ abicon.com
Louisiana-Pacific Canada Ltd.	Donna Kopecky (Grassia), District biologist	(204)-734-7706, Donna.Kopecky@ lpcorp.com
Alberta Pacific Forest Industries	Mark Spafford, Aquatic ecologist	(780)-525-8000, mark.spafford@ alpac.ca
Ducks Unlimited Canada	Eric Butterworth, Senior biologist	(780)-489-8110, e_butterworth@ ducks.ca
Researchers		
Saskatchewan Research Council	Mark Johnston, Scientist	(306)-933-8175, johnston @src.sk.ca
Canada Water Network	Kelly Munkittrick, Scientist	(506)-648-5825, krm@unb.ca
SFMN KETE liaison for SoK project		
Bruce McNab	Knowledge exchange manager	(780)-492-9834, bruce.macnab @sfmnetwork.ca

Help us make this newsletter better

Send new material, suggestions, or corrections to:

Dr. Irena Creed, Associate Professor
Department of Biology,
University of Western Ontario,
1151 Richmond St., London,
Ontario, Canada
Phone: 519-661-4265
Email: icreed@uwo.ca