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Paul Sibley

“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!

### Steering Committee Meeting: Conference call on November 6<sup>th</sup>, 2007

#### Highlights:

##### SoK Target Audience:

The target audience will include scientific researchers and senior policy makers and planners from government, industry, aboriginal groups and NGO groups.

##### SoK Deliverables:

A brief synthesis (approx. 60 pages) designed to be “easily accessible”, and include boxes of highlights, definitions, concepts, and guest statements.

A series of **appendices** that will also be designed for accessibility, and include:

- A digital library of journal articles, government and industry reports, and NGO materials to support (b-c) below;
- A region by region catalogue of forest management policy/guidelines and certification standards with respect to watershed and riparian scale planning and operational practices (including road construction and stream crossing guidelines);
- A region by region catalogue of best management practices accompanied by a summary of surveys/interviews and participating individuals/companies; and
- A “toolbox” to develop best management practices for a given forested landscape.

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#### **Next issue: May 2008**

- Results of surveys

#### SoK Scope:

The scope of the SoK has refined its focus. In the original SoK proposal, a system dynamics simulation model was to be developed to enable users to explore social, economic and environmental impacts on and interactions with water resources on forested landscapes under the leadership of Dr. Slobodan Simonovic at The University of Western Ontario. The development of the system dynamics simulation model was not supported by the SFMN Research Planning Committee as it was outside the intended scope of the SoK series and it resulted in a budget outside the budget envelope allocated to each SoK project. Attempts were made to “save” this part of the project as support was received for an NSERC IPS from Ducks Unlimited Canada for salary for a PhD student (Mohammed Khaled Akhtar) to develop this simulation model. However, the lack of operating funds made this an unrealistic venture. As of December 2007, Dr. Simonovic and his PhD student decided to withdraw from the SoK and to pursue a different avenue of research activity.

#### SoK Peer Review:

The budget enables one major workshop (about 50 people with participation by the core team, the steering group, and SFMN partners). There was a consensus that this major workshop be held towards the end of the project (e.g., prior to deadline of December 2008). At the workshop, participants will be able to identify strengths/weaknesses in time for consideration prior to submission of the final SoK report. The possibility of combining workshops from different SoK projects was discussed and encouraged. Discussions are ongoing with SFMN staff to identify these opportunities.

# SoK Feature: national reviews on BMP and blue ribbon standards

## **PROJECT #1: A national review of best management forestry practices for the conservation of water resources**

We are conducting a national review of current forest management practices to achieve sustainable forest management with an emphasis on the conservation of water resources. Forest management practices, sometimes referred to as BMPs (best management practices), are the key means for resource managers to implement forest management strategies on the ground. These practices are driven by a number of different factors, including (a) provincial government policy, regulations and guidelines; (b) company policy including environmental management systems, standard operating practices and responsible land stewardship practices; and (c) certification standards for the various forest certification systems that are found in Canada.

We recognize that there are no absolute best practices. Rather we should think of them as alternative practices which are adapted and implemented based on features in various regions including both biophysical attributes as well as socio-economic and political characteristics. We should also think of them as adaptive practices. For instance, we may have to revise BMPs in regions affected by catastrophic events linked to environmental change, such as the mountain pine beetle outbreak that started in BC, and is expected to affect all of Canada's forests within the next 50 years. In our national review we will examine if the BMPs 'fit' with the state of scientific knowledge on protecting water resources and examine the role that the local or regional context (e.g. forest type, economic and political) plays in shaping BMPs.



**Project members:** Dayna Linley, Saul E. Sotomayor-Taca, and Jelena Friscic.

## **PROJECT #2: "Blue ribbon" standards for forest management of water resources: A critical analysis of provincial forestry policy versus forest certification standards for the conservation of water resources**

We will be conducting a critical analysis of government policy, regulations and guidelines versus non-government (or third party) certification systems as a driver for "blue ribbon" standards for management of water resources in forest management. Forest management policy, regulations and guidelines are developed and administered by provincial government agencies.

In contrast, forest certification systems are developed by "third-party" agencies that assess forest management using specific requirements developed for the various systems. Forest certification systems include the Forest Stewardship Council (FSC), the Canadian Standards Association Z809 system, the Sustainable Forestry Initiative (SFI), and ISO14001 Environmental Management System. They each develop their own principles, criteria, and standards, and use their own evaluative process. Forest management companies voluntarily agree to undertake certification for several reasons including market access, a means to demonstrate responsible land stewardship and sustainability and a way to continually improve the operational and environmental performance of their management strategies.

This study will undertake a review of current forest management policy in Canada, including provincial and territorial government agencies, and compare it to the standards of the various certification systems with respect to the conservation of water resources. This review will assess the 'fit' between both the policy and certification frameworks and the current state of science on forest management and the protection of water resources. The review will also highlight areas where neither government forest policy or certification standards are failing to protect or conserve water resources.



**Project members:** Heather Lichty, Cale Fisher, Jennifer Hayward.

# Completed milestones, current and future activities for SoK#9

## COMPLETED PROJECT MILESTONES:

- Conceptual framework for SoK.
- Annotated bibliography to support writing of SoK (ongoing initiative).
- Catalogue of provincial and territorial government policy, guidelines, and regulations.
- Catalogue of provincial and territorial best management practices.

## Past face-to-face Project Meetings:

January 2008, Vancouver, BC (Core Group  
- combined with HELP Workshop)

- Meeting to brainstorm surveys/interviews questions and generate distribution list.

October 2007, London, Ontario (Creed/Donnelly)

- Meeting to select graduate students to participate in the SoK projects and to discuss project scope and deliverables.

September 2007, London, Ontario (Core Group)

- Workshop to discuss proposals for the scope and form of the synthesis report and to come up with recommendations to the SoK#9 Steering Group.

August 2007, London, Ontario (Creed/Donnelly)

- Meeting to develop workshop materials (including proposals for scope and form of the synthesis report).

June 2007, London, Ontario (Core Group)

- Meeting of Creed/Shrubsole/Simonovic to meet new SFMN researchers, to review comments from SFMN Research Planning Committee on the SoK#9, and to determine next steps.

## Next Meetings:

January 25, 2008, London, Ontario  
(Creed/Donnelly)

- Meeting to monitor progress of the SoK#9 projects, and to finalize survey/interview design and distribution list for these components of the projects.

## Current Activities:

- Design of survey/interview questions.
- Formation of list of participants.
- Completion of the projects led by the two groups of graduate students (expected to be completed by April 2008).

## Next Steps:

Watch out for the **SPRING WORKSHOP** (April/May 2008) to be delivered by the combined efforts of investigators from SFMN's SoK#9 and HELP investigators. The goals of this **SPRING WORKSHOP** will be to:

1. Share progress on the SoK#9 and HELP projects.
2. Present to SFMN partners the suite of forest hydrology resources that we have developed for them, including:
  - (a) A forest hydrology website that will compile and organize hydro-ecological data from across Canada's forest landscapes.
  - (b) A digital library with search engine of articles/books representing the state of science, policy and practice in terms of forest management for the conservation of water resources.
  - (c) A nation-wide catalogue of best management practices.
  - (d) A nation-wide catalogue of forest management policy/guidelines and certification standards with respect to watershed and riparian scale planning and operational practices (including road construction and stream crossing guidelines).
3. Receive from SFMN partners feedback on the two SOK projects focused on factors influencing development of BMP for conservation of water resources and other progress to date.

## Contacting SoK researchers and partners

The SoK (Water resources) project is a large collaborative project with a core group of 6 Principal Investigators, and 7 Research Associates 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. Irena Creed.

Core group		
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*Help us make this newsletter better*

Send new material, suggestions, or corrections to:

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