

DRAFT

**Forest Harvesting and Water Quality
A Model Forest Network
Strategic Initiative Concept Paper**

**Karen Saunders
Western Newfoundland Model Forest
April, 2003**

DRAFT

Opportunity Scan

In May of 2000 in Walkerton, Ontario, seven people died and 2300 became ill due to contamination of their drinking water with deadly bacteria (O'Connor 2002a). The tragedy triggered an alarm about the health of drinking water across the country. Walkerton also brought to the attention of resource managers the need for good scientific information and cooperative action when working near drinking water sources. Source protection in particular is likely the most cost-effective barrier in a multiple-barrier approach to drinking water (O'Connor 2002b, Auditor General of British Columbia 1999). There are many activities with the potential to negatively impact drinking water sources. Forest harvesting (including road construction) is one such activity. So important is the link between water and forests that the United Nations Food and Agricultural Organization (FAO) is proposing a new entity in the FAO Medium Term Plan 2004-2009 that will link these two issues.

In Canada, there has been research conducted on the effects of forest harvesting and road construction on water quality in almost every province. There has been, however, little research on the potential effects of forest harvesting on drinking water specifically. Also, there has been little opportunity to share the results gained from research of the forest/water interface between jurisdictions.

Proposal Summary

The proposed strategic initiative includes several activities and incorporates room for adaptations. The first activity involves the development of an appropriate website to house information relevant to forest harvesting activities and water quality in Canada. This activity may occur simultaneously with the second and third activities.

The second activity involves a scoping exercise to be performed at the regional and/or model forest network level with contributions from each of the model forests. The objective of the scoping exercise will be to identify and list suggested topics, areas of concentration and key concerns related to forest harvesting activities and water quality in Canada for use in standardized individual workshops.

The third activity involves the development of a standardized workshop template. The goal is to host a workshop at each model forest or region. Workshops may be at the model forest scale, regional scale, or national scale. A standardized approach will ensure that the objectives of each workshop will be the same, participants will be examining similar issues, and results will be

DRAFT

comparable and of benefit to all. Each workshop should provide opportunities for discussion of all or some of the following:

- Key concerns and topics as identified in the scoping exercise.
- Analysis of the effectiveness of existing approaches to forest harvesting and water quality.
- Results of research related to forest harvesting activities and water quality.
- Identification of research gaps.

The final activity is the compilation of workshop results and discussions and their posting on the website. Ongoing updates and maintenance of the website are assumed.

Responsibility	Activity
Project Leader	Development of website.
Model Forest Network	Scoping Exercise
Model Forest Network	Preparation of standardized workshop template.
Individual Model Forests	Hosting of workshops.
Project Leader	Compilation of results.
Project Leader	Maintenance of website.

Program Objectives

Due to the comprehensive nature of the proposed SI, there are linkages to objectives one through three of Phase III of the Model Forest Program. Specifically, the information acquired regarding forest harvesting and water quality will inevitably be applicable both within and beyond model forest boundaries. The proposed web-based information and discussion site will provide a forum for the dissemination of results and knowledge gained through workshops as well as individual analyses and projects conducted at the local, regional and national levels. The spirit of sharing and cooperation as well as the increase in dialogue and communication between model forests will strengthen network activities.

SFM Policy Linkages

The proposed SI will attempt to forge a relationship with several relevant groups and organizations including (but not limited to): the Canadian Council of Forest Ministers, the Canadian Council of Ministers of the Environment, Canadian Forest Service, provincial government departments charged with the management of forest resources, provincial government departments charged with the management of water resources, industry representatives responsible for the implementation of legislation governing forest practices, municipalities

DRAFT

and woodlot owners with the need for watershed management planning at a smaller scale.

The proposed SI will address at a minimum the following leading SFM issues relevant at several levels: the potential impacts of forest harvesting in proximity to drinking water supplies; integrated water resource management planning; the watershed level approach to forest management planning; community education regarding forestry activities and water quality; community involvement in watershed management; and other issues as identified in the scoping exercise.

It is anticipated that the Network would request that the Canadian Forest Service will adopt the responsibility for site maintenance at the end of Phase III.

Network Priority

Forestry activities and their potential impacts on water quality is an issue of concern across the country. With a model forest in every province, the model forest network is in an excellent position to bring together ideas, successes and failures in water management for discussion and analysis. There is currently a lack of awareness across Canada of the differing approaches and associated research related to forest harvesting and water quality. This initiative will familiarize all Network participants with the possibilities and techniques being used in other parts of the country.

The Network's roles in addressing the identified issue include the following:

- Development and maintenance of website devoted to forest harvesting activities and water quality in Canada
- Coordination of consistent workshops and research at individual model forests that draw upon the water management experiences of partners.
- Ensuring a suitable host to maintain the project upon possible termination of the model forest program after Phase III.

Expression of Interest

Interest has been expressed regarding the results of the report, "Forest Harvesting and Drinking Water in Newfoundland and Labrador". This report provides factual information about each province's approach to forest harvesting activities and the protection of drinking water quality. What the report is lacking is the research that led to the development of current policies and legislation. Nor does the report analyze or discuss the merits and weaknesses of differing approaches.

DRAFT

Beyond the Boundaries

Who?	How?
Canadian Council of Forest Ministers (CCFM) and the Canadian Council of Ministers of the Environment	Providing a strong link to policy development.
National Aboriginal Forestry Association (NAFA)	Providing input and perspectives on First Nations' water quality concerns.
Industry	Providing an industry perspective.
Provincial governments	Ensuring up-to-date information regarding policies, legislation and guidelines governing water quality and forestry activities.
Academia	Conducting scientifically sound research on various aspects of forestry activities and water quality.
Model Forests	Hosting workshops and forums. Coordinating the gathering of opinions and perspectives from partners.
Model Forest Network Coordinators	Ensuring consistency and punctuality with initiatives. Ensuring currency and accuracy of information.

Outputs

- A one-stop, current (up-to-date) reference resource (including website, research reports, etc.) for forest managers interested in water quality issues.
- A searchable library of literature and research related to forestry activities and drinking water quality in Canada.
- Increased connection between the research community, model forests, forest managers, policy makers and the public.
- Implementation of improved forest management that is better designed to ensure the protection of water quality.

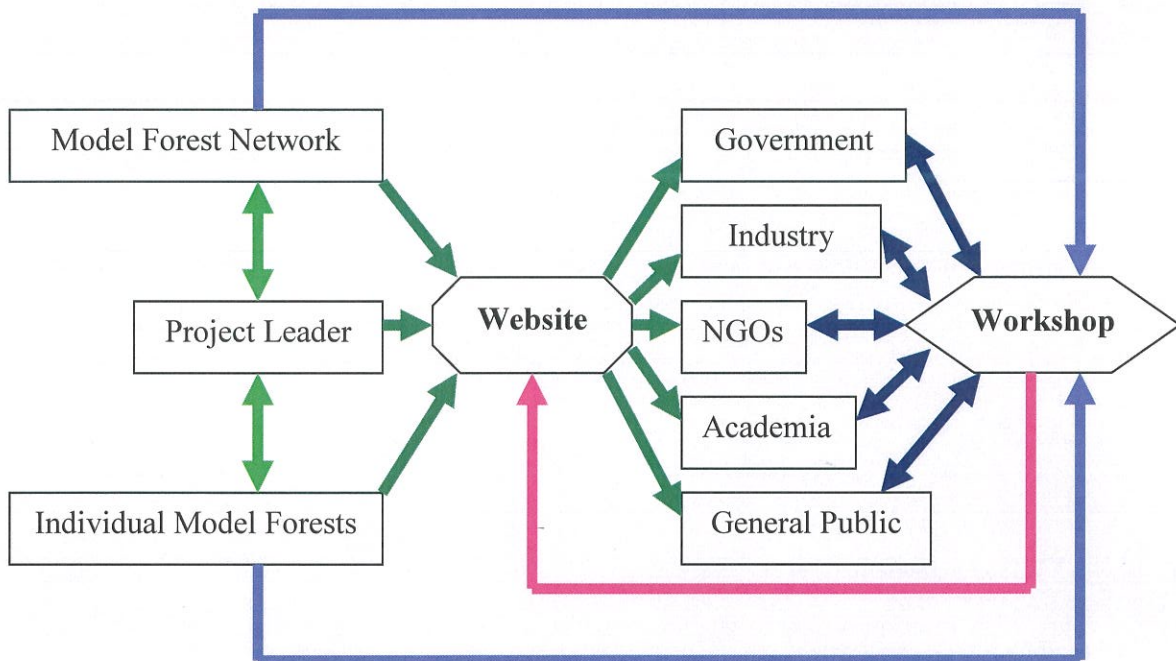
Immediate Outcomes

- Creation of closer relationships between and among forest managers and those concerned with water quality across Canada.
- Increased awareness of water management options.

Intermediate Outcomes

- Increased collaboration between jurisdictions in the studying of forest harvesting activities and water quality.
- Increased analysis of the benefits and weaknesses of various approaches to water quality maintenance.
- Identification of research gaps and opportunities through joint partnerships.

Communication Strategy



Expected Cost

The expected costs are specified below (see table). Workshops would occur in the next fiscal year. The budgeting includes allowances for ½ person year. A second concept paper – Forest Management Planning in Canada – also provides allowances for ½ person year. These two proposals could most logically be implemented in tandem. Listed costs could also be reduced through several avenues – in kind contributions, individual model forest contributions, etc.

Activity	Year 1	Year 2	Year 3	Year 4	TOTAL
Staff (person*years)	\$27,500	\$14,000	\$5,000	\$5,000	\$51,500
Travel	\$5,000	\$5,000	\$2,000	\$2,000	\$14,000
Workshops	n/a	\$25,000	n/a	\$35,000	\$60,000
Miscellaneous	\$1,000	\$1,000	\$1,000	\$2,000	\$5,000
TOTAL	\$33,500	\$45,000	\$8,000	\$44,000	\$130,500

DRAFT