Future Forest Ecosystems Scientific Council (FFESC)

Terms of Reference

August 20, 2008

Purpose

The purpose of the FFESC is to promote research that supports adaptation of BC's forest management framework to anticipated effects from climate change.

The specific objectives are stated in the FFESC charter (Appendix 1) and include the following:

1. Increase our understanding of how forest and range ecosystems can be expected to change over time as a result of climate change.
2. Develop projections to forecast those changes.
3. Develop methods of adapting forest management in response to climate change that will help mitigate the impacts on forest and range ecosystems and productivity.
4. Research the economic and social consequences to BC of the changing forest and range ecosystems, and the effects of the proposed mitigating options.

Membership and Decision Making

FFESC consists of a chair, two representatives (or their designates) from each member organization (i.e., University of British Columbia, University of Northern British Columbia, and Ministry of Forests and Range), and a secretariat.

FFESC will use a consensus method for decision-making. Quorum consists of one member of each organization.

Potential conflict of interest issues will be brought to FFESC council for discussion and decision.

Chair:

Chief Forester, Ministry of Forests and Range (MFR)

Representatives:

University of British Columbia
- Dean, Faculty of Forestry
- Associate Dean, Faculty of Forestry

University of Northern British Columbia

Dean, College of Science and Management
Chair, Ecosystem Science and Management Program
Ministry of Forests and Range
Director, Research Branch
Director, Climate Change and Forest Carbon

Secretariat:

The FFESC secretariat is comprised of members drawn from each of the three member organizations. Members of the secretariat will attend FFESC meetings as required in *ex officio* capacity. Secretariat members serve as a liaison between the member organizations and FFESC. The secretariat will provide research, administrative support, and coordination for the FFESC.

Allocation of funds

The FFESC funds will be expended as follows:

- Cost of running FFESC including administration support and overhead to a maximum of 15% of the total grant.

- Discretionary envelope up to 10% of the FFESC funds.

    - Discretionary funds, up to 10% of the FFESC grant, are to be used at the discretion of FFESC to address miscellaneous expenditures not covered in the administration budget, such as costs associated with additional meetings, workshops, etc.

- Granting funds to research projects.

    - A one-phase selection process for targeted research will be utilized.

    - Identification and prioritization of themes taking into consideration research funded from other sources.

    - Proposals will be solicited from qualified researchers.

    - Proposals will normally be peer reviewed.

Current Administration Funding Approach

As per the Charter and the Grant-In-Aid from MFR (Appendix 2), overhead of 5% will be provided to the administrator (UBC). In addition, project level support is 3% for projects carried out by UBC and 5% for projects carried out by others. FFESC member agencies will hire staff to provide secretariat support as described above. See FFESC administrative budget in Appendix 3.

Strategic planning

A FFESC strategic plan will be developed from priorities identified by the secretariat and other institutions and agencies. This plan will consider information gaps and identify research themes for FFESC funding.

Contributions to FFESC

FFESC may accept contributions in kind or in cash from institutions or agencies wishing to support the goals and objectives of the FFESC.

Reporting

The FFESC secretariat will develop an annual report, for FFESC approval, on funding decisions and deliverables that includes an accounting of funding received and disbursed.

Auditing

The FFESC will oversee a value for money audit that will be conducted by a third party auditor to verify the effective utilization of disbursed funds as required by the Grant-In-Aid letter.

3. Disbursements will be based on the principles of good value for money, timeliness of the product and scientific merit

4. UBC will undertake the role of "administrator" to the FFESC and provide administrative support functions. UBC may be reimbursed an administrative fee as per specific contribution agreements.

5. FFESC may accept contributions in kind or in cash from institutions or agencies wishing to support the goals and objectives of the FFESC.

6. All funds received by FFESC and disbursed to agencies other than the administrator (UBC) will be subject to a maximum administration fee of 5% by the receiving agency.

7. FFESC will disburse all funds from each contribution within 4 years of receipt.

8. An annual report will be prepared to publicly report on funding decisions and deliverables as well as to provide an accounting of funding received and disbursed. Reasonable costs of report preparation incurred by the member institutions may be recovered from FFESC funds.

9. Biannually a value for money audit will be conducted by a third party auditor to verify the effective utilization of disbursed funds. Reasonable costs incurred by member institutions may be recovered from FFESC funds.

10. FFESC may amend this Charter as required with full agreement of council members and will annually publish a business plan to guide their decision making processes.

FFEI Research Objectives

1. Identify functional constraints for key species and ecological processes to establish a baseline of information for forecasting and monitoring ecosystem changes.

2. Develop forecasting models to determine how key species and ecological processes might respond to potential future climates.

3. Develop scientific approaches to (a) monitoring ecosystem changes and (b) evaluating existing and new approaches to forest and range management under changing ecological and climatic conditions.

4. Monitor and document the effects of climate change on key species and ecological processes.

5. Carry out experimental tests or trials of existing and new approaches to forest and range management for their effectiveness under changing ecological conditions.

6. Assess the environmental, economic and social risks and benefits associated with implementing climate change adaptation strategies and practices.

7. Communicate and extend knowledge gained through research activities to the forest and range management community.

FFEI Research Priorities

Research and analysis into the following areas and concerns will be included as the first set of priorities to be addressed in the pursuit of the above objectives.

1. Studies on the impacts of forest management actions such as harvesting in mountain pine beetle areas and fertilizing on the coast, on the forest carbon balance and CO_2 emissions.

2. Predict effects of climate variability on forest growth at the regional level to assist in long-term timber supply analysis.

3. Develop understanding of the effects of declining species in forest stand composition on the management of the current and future timber supply (e.g. yellow cedar decline along the coast).

4. Expand our ability to forecast future risk of insect and disease pests of commercial conifer and hardwood species.

5. Understand the effects of a warming environment to Northern BC hydrology and geomorphology, where there is evidence of increasing landslides.

6. Understand the effects of climate change on wildfire and wildfire prediction, and the impacts on hydrologic and geomorphologic processes.

7. Assess the vulnerability of dominant tree species to successful regeneration under various climatic projection scenarios

8. Determine the primary vulnerabilities, adaptation opportunities and challenges to BC and Canada's main tree species (including genetic, mortality and pest susceptibility issues).

9. Identify the tolerances of major grasses, forbs, and shrubs to predicted levels of climate change and determine implications for the range industry.

10. Determine how changing climate will affect wildlife habitat supply, (especially where there are compounding environmental impacts such as in the mountain pine beetle region).

Dr. Jack Saddler, Dean of Forestry
University of British Columbia

25 March 08
Date

Dr. William McGill, Dean
College of Science and Management
University of Northern British Columbia

19 Mar 08
Date

Jim Snetsinger, Chief Forester
Ministry of Forests and Range

Mar 27/08
Date

Appendix 2: FFESC Grant-In-Aid

08-1594

APR 0 9 2008

BRITISH COLUMBIA
The Best Place on Earth

File: 00245-01

March 28, 2008

Mr. Angus Livingston
Directing Manager
University-Industry Liaison Office
The University of British Columbia
#103 – 6190 Agronomy Road
Vancouver, BC V6T 1Z3

Dear Mr. Livingston:

RE: Grant-In-Aid Support for Dr. J N Saddler at the University of British Columbia (UBC) in the Faculty of Forestry for the Project entitled "Future Forest Ecosystems Scientific Council Projects"

We confirm that we are pleased to provide to UBC the Grant in the total amount of $5,500,000.00 for the Researchers who will perform the Project on the following terms:

1. The Project is expected to commence upon the receipt of funds
2. The Researchers will provide us with reports, make a presentation to us, or provide us with a copy of any publication in relation to this work.
3. UBC will not be restricted from presenting publications at symposia, national or regional professional meetings, or from publishing in journals or other publications, accounts of the Project.
4. This Grant shall be governed by the laws of the Province of British Columbia and the federal laws of Canada applicable therein.
5. The Researcher will acknowledge our assistance (unless we request otherwise in writing) in any publication arising from the Project.
6. We may copy and internally distribute any reports prepared for us.
7. The Grant funds will only be used for those expenses which are required to carry out the Project and which are in accordance with UBC's regulations governing the use of grant funds.

Ministry of Forests and Range | Forest Stewardship Division | Location: 3rd Floor, 1520 Blanshard Street Victoria, British Columbia V8W 3K2 CANADA | Mailing Address: PO Box 9525 Stn Prov Govt Victoria, BC V8W 9C3 Tel: (250) 387-1296 Fax: (250) 953-3687

8. It is understood that the Faculty of Forestry shall charge an administration fee of 5% out of the total $5,500,000 for administrative purposes. An additional 3% administration fee will be charged by UBC departments that are subsequently awarded funds for specific projects, also to come out of the available funds. Funds that are awarded to external bodies (i.e. UNBC) will include an administration fee of up to 5%.

Sincerely,

Doug Konkin
Deputy Minister
Ministry of Forests and Range

Joan Hesketh
Deputy Minister
Ministry of Environment

Encl: Cheque

pc: Dr. J N Saddler, Dean, Faculty of Forestry
Ms. Barbara Borthwick, Director of Administration, Faculty of Forestry
Craig Sutherland, Deputy Chief Forester
Brian Storey, Director, Forest Stewardship Operations

Appendix 3: FFESC Administrative Budget

Function	$	Comments
Financial Administration	275,000	To UBC for 1) financial disbursements, accounting, reporting oversight and, 2) coordination of FFESC activities
FFESC Meeting Costs	40,000	$10,000 per year – meetings/management
Strategic plan	-	Done by staff
Value Audits	30,000	External audit – quality review at same time
Final Report	-	Done by staff.
Secretariat: Research Coordination	160,000	UNBC – Research quality and performance, assessment of existing research
Secretariat: FFESC / FFEI Integration	160,000	MFR – Integration with other FFEI activities and FFESC support
Project level administration	185,000 *	3% to UBC and 5% to others
Total Administration Functions	850,000	

***** Estimated