

The FRPA Evaluator

2003-2004 Year in Review

Program goals and objectives

The FRPA Resource Evaluation Program (FREP) was established in 2003 by the Ministry of Forests (MOF), the Ministry of Water, Land and Air Protection (MWLAP), and the Ministry of Sustainable Resource Management (MSRM). The purpose of FREP is to determine whether forest and range practices in our province are achieving Government's objectives for resource values identified in the *Forest and Range Practices Act* (FRPA).

The objectives of FREP are to:

- evaluate the status or trends of resource values and determining causal factors;
- determine whether resource values are being managed in a sustainable manner through proven or alternative forest practices; and,
- recommend changes to forest and range policies and legislation, where required.

To achieve these objectives, FREP participants will conduct the following activities:

- identify, prioritise and re-assess evaluation questions that need addressing;
- develop measurable, cost-effective indicators, methodologies, sampling protocols, and quality assurance protocols for testing evaluation questions;
- evaluate priority questions through intensive, extensive and routine evaluations;
- communicate the results of evaluations; and,
- develop recommendations for changes to legislation and policy, for consideration by the FRPA Joint Management Committee (JMC) and the Program Sponsor (Chief Forester).

Accomplishments in 2003-04

In 2003-04, FREP focused on establishing the program's management framework that will support evaluation planning, fieldwork and reporting. In addition, priority evaluation questions were identified, indicators and methodologies were developed for selected resource values, and three evaluation projects were conducted. The following table (on page 2), summarises accomplishments in 2003-04.

Extension Note #3
March 2004

The FRPA Evaluator is a regular publication of the FRPA Resource Evaluation Program designed to inform stakeholders on program development and implementation, and report on the results of evaluation projects.

This Issue: In this issue, we review the past year of FRPA Resource Evaluation Program.

Accomplishments in 2003-04

FREP management framework	FREP evaluation work
FREP program charter outlining program framework	41 priority evaluation questions
Draft Resource Value Team Leader Protocol identifying responsibilities of RVTs	Top seven evaluation questions (see next section)
Draft External Stakeholder Protocol establishing process for stakeholder involvement	Indicators and methodologies for riparian, soils, stand-level biodiversity, karst resource features, water quality, and visual quality
Discussion paper on roles and responsibilities of forest regions and districts	Evaluations of invasive alien plants, cutblock size, and wildlife trees (phase II)
Evaluation terminology paper defining key evaluation terms	Indicator workshop to learn results of Forest Practices Board's indicator field-testing
FREP communications plan for planning and reporting program activities and evaluations	Consultation with academic community and industry to solicit evaluation partnerships
Three editions of "FRPA Evaluator" to update agencies and stakeholders on FREP activities	Phase one of a review of ministry information systems to determine applicability of existing data attributes to FREP.
Technical Note #1 "Developing and Implementing Effectiveness Evaluation Indicators"	
FREP web site	

List of prioritised evaluation questions

Of the 41 evaluation questions developed by resource value teams in 2003, the following seven were deemed the highest priority for evaluation. Each year, the FREWG will rank and prioritise updated evaluation questions, for approval by the JMC and the FREP Sponsor.

Question 1. Are riparian forestry and range practices effective in maintaining the structural integrity and functions (e.g. proper functioning condition) of aquatic ecosystems and their associated riparian areas over both short and long-terms?

Question 2. Is the structural retention (wildlife trees and coarse woody debris) left associated with cutblocks adequate to maintain habitat for dependent species at the site and across the landscape now and in the future?

Question 3. What impact has the Forest Practices Code had on tree species composition and levels of genetic diversity of forest stands harvested and regenerated prior to December 2005? This evaluation will use October 1987 to December 2003 as a benchmark, and will look at both the forest stand level and the landscape level.

Question 4. Are forest practices resulting in levels of site disturbance detrimental to soil productivity and hydrologic function? This evaluation will examine disturbance in the NAR.

Question 5. Is the amount and distribution of suitable habitat within protected areas or managed areas sufficient to maintain the species across its range now and over time? This evaluation will examine one selected species.

Question 6. Have forest practices increased the magnitude or frequency of bank erosion or stability, channel aggradation, channel widening, and flooding?

Question 7. Are range practices resulting in reduced quality and quantity of forage?

The remaining 34 evaluation questions may be found on the FRPA Resource Evaluation Program web site, at <http://www.for.gov.bc.ca/hfp/frep>.

Status of resource value indicators

Resource Value	Status
Soils	Draft routine and extensive indicators were developed by the MOF/MWLAP and tested by the Board during its 2003 audits. The Board will further test a subset of these indicators during its 2004 audits. Refinement of these indicators is now underway and will be field tested by MoF/WLAP in 2004 for use in conducting evaluations.
Visual Quality	Draft routine and extensive indicators have been developed and have undergone initial photo-based testing. The Board and MoF plan to test these indicators during its 2004 audits.
Timber	Extensive indicators for cutblock size have been developed and an evaluation was conducted in 2003 (see next section).
Forage	Routine, extensive and intensive indicators for forage have been completed. An evaluation of invasive alien plants has been ongoing since 2002 (see next section).
Water	Draft routine and extensive indicators for water quality have been developed, and the Board and MoF/WLAP plan to test these indicators during its 2004 audits.
Riparian	Draft routine and extensive indicators and methods were developed by a multi-agency team lead by the MOF. Routine indicators were tested by the Board in 2003 and the MOF in 2004. The MOF and Canfor have also field-tested the extensive-level indicators. Further testing will take place in 2004.
Wildlife	Routine and extensive indicators for wildlife are under development. Some of the stand and landscape-level biodiversity indicators will be used for wildlife.
Bio-diversity	Routine, extensive and intensive indicators for wildlife trees were developed and used for a wildlife tree evaluation that was conducted in 2003 (see next section). The Board tested the wildlife tree indicators during its 2003 audits. Draft routine and extensive indicators for stand-level biodiversity have been developed, and an approach to developing landscape-level biodiversity indicators is underway. The Board and MoF/WLAP plan to test stand-level biodiversity indicators during its 2004 audits.
Resource Features	Draft routine and extensive indicators for karst features have been developed. A stakeholder workshop will be held in April 2004 to review the indicators. Field testing of the draft indicators is planned for 2004 subject to available funding.
Recreation	Indicators will be developed starting in spring 2004 and field-tested this summer.
Cultural Heritage	No indicator development is planned in 2004-05.

Evaluations conducted in 2003-04

The following three evaluation projects were initiated by Forest Practices Branch prior to establishment of the FRPA Resource Evaluation Program. These projects evaluated the effectiveness of Forest Practices Code legislation and policy governing range, timber, and wildlife tree practices.

Invasive alien plants. An evaluation of invasive alien plants and bio-agents has been ongoing since 2002. The evaluation involves multiple research trials intended to measure effectiveness of the invasive alien plant program on individual target plant species. This evaluation is long-term, and effectiveness data will be reported over time as the research trails reveal conclusive results.

Cutblock size. In 2003, an evaluation of cutblock size was conducted. The evaluation looked at cutblocks harvested between 1996 and 2002 to determine the average cutblock size by district for each region, under partial and clearcutting silvicultural systems. Districts conducted a parallel review of natural disturbance history. This evaluation is nearing completion and will be reported in May 2004. Given the significance and complexity of this topic, related evaluations may be conducted in future.

Wildlife trees (Phase II). Phase II of a two-part wildlife tree evaluation was conducted in 2003. Phase I, which was reported in March 2003, assessed wildlife tree retention on 128 cutblocks to determine the effectiveness of retention practices, timber supply impacts, post-harvest structural and compositional changes, and cost-effectiveness. Phase II involved collecting post-harvest wildlife tree data on 14 boreal white and black spruce stands and using that data to (a) develop a model for predicting wildlife tree value from standard cruise data, and (b) compare collected post-harvest data against baseline wildlife tree data. Phase II of the wildlife tree evaluation is nearing completion and will be reported in summer 2004.

Once completed, reports on the invasive alien plants, cutblock size, and wildlife tree evaluations will be posted on the FRPA Resource Evaluation Program web site, at <http://www.for.gov.bc.ca/hfp/frep>.

FREP-Related Forest Practices Board activities in 2003-04

In 2003, the Forest Practices Board conducted three theme audits that examined compliance with and effectiveness of riparian practices, soil conservation practices, and measures to address wildlife trees. The audits examined licensee practices in the Chilliwack (riparian), Mackenzie (soils), and Vanderhoof (riparian, soils and wildlife trees) forest districts. For these audits, the Board used some of the effectiveness indicators developed by MOF and MWLAP specialists. Before auditing, the Board tested and modified the indicators for abbreviated field verification. The Board expects to report the results of its three theme audits in spring-summer 2004.

In January 2004, representatives of the Board, the MOF, and the MWLAP participated in an indicator workshop. At the workshop, the Board gave feedback to the agency specialists on how well the indicators worked and what modifications were made for field auditing. Together, the group brainstormed the qualities of a good indicator. FREP resource value specialists will consider the workshop results when refining and developing new indicators.

Also in January, the Board gave FREP financial assistance to develop new indicators for water quality, visual quality, karst resource features, and landscape-level biodiversity, and to refine existing indicators for stand-level biodiversity and soils. The Board will test these indicators during its 2004 audits.

Expenditures in 2003-04

The following table is an approximate breakdown of FREP expenditures in 2003-04. The funds came from a variety of sources.

Project	Spent
Evaluation of invasive alien plants	20 000
Evaluation of cutblock size	16 000
Evaluation of wildlife trees (Phase II)	15 000
Analysis of information systems	4 000
Development of indicators, methodologies and rationales for riparian	25 000
Development of indicators, methodologies and rationales for soils	18 000
Development of indicators, methodologies and rationales for biodiversity	23 000
Development of indicators, methodologies and rationales for karst resource features	12 000
Development of indicators, methodologies and rationales for water	14 000
Development of indicators, methodologies and rationales for visual quality	10 000
Indicator workshop	3 000
FREP program development, communication and extension	35 000
FREP travel and related business expenses	10 000
Total	\$ 205 000

Projects planned for 2004-05

FREP has 15 priority initiatives planned for 2004-05. Actual accomplishments will depend on available funds and partnerships developed.

1. Development and field testing of indicators, methodologies, and sampling protocols for soils, water, riparian, karst resource features, stand-level biodiversity, visual quality, recreation, and timber.
2. District-level pilot implementation of stewardship monitoring protocols for three high priority resource values (eg, soils, riparian, recreation, and/or stand-level biodiversity).
3. Strengthened internal and external stakeholder communication and participation.
4. Three intensive effectiveness evaluation projects (eg, recreation, range, and biodiversity).
5. Completion of the FREP management framework.
6. Development of a FREP quality assurance plan and protocols.
7. Publication of a data management plan.
8. Implementation of a data management system.
9. Publication of a paper defining links between FREP indicators and Certification indicators.
10. An effectiveness evaluation workshop with external stakeholders.
11. An effectiveness evaluation workshop with regional and district staff.
12. Refinement of high priority evaluation questions.
13. Completion and delivery of effectiveness evaluation training.
14. Two technical editions of the FRPA Evaluator.
15. A FREP Year In Review report.

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For more information on the FRPA Resource Evaluation Program please visit our web site at (<http://www.for.gov.bc.ca/hfp/frep>).