

Evaluating Forest Management in British Columbia

The introduction of the *Forest and Range Practices Act* (FRPA) initiates the transition to a results-based forest practices framework in British Columbia. This new approach to forest management will maintain environmental standards, while reducing administrative requirements and encouraging innovative, cost-effective forest and range practices. Under the results-based framework, the forest industry will be held accountable for sustainable and responsible forest management outcomes.

The FRPA policy framework is based on three pillars – objectives, performance requirements, and compliance and enforcement, and two foundations – professional reliance and effectiveness evaluations. As such, the FRPA Resource Evaluation Program is critical for implementing the *Forest and Range Practices Act*.



The goal of the evaluation program is to ensure relevant, timely and appropriate assessments of the effectiveness of FRPA in the stewardship of forest and range resource values. Through the evaluation process, we will be able to identify issues regarding the implementation of forest policies, practices and legislation, as well as promote the continuous improvement of forest practices in British Columbia.

In October 2003, a charter outlining the framework for the evaluation program was endorsed by the FRPA Joint Management Committee (JMC) and approved by the Chief Forester. As described in the *FRPA Resource Evaluation Program Charter*, the objectives of the program are to:

- Evaluate the status or trends of resource values, and determine causal factors;
- Determine whether resource values are being managed in a sustainable manner through proven or alternative forest practices;
- Communicate the results of evaluations; and
- Recommend options for changes to forest and range policies, practices and legislation, where required.

The FRPA Evaluator

Extension Note #1
February 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 provide an overview of the program structure, discuss internal and external stakeholder roles, and present a few examples of evaluation projects conducted during 2003.

Upcoming Issues: Future issues will include the program's prioritized list of evaluation questions, proposed evaluation projects for 2004/2005, more on district roles and responsibilities, a detailed look at individual evaluations, a description of what makes a good indicator, and principles and practices for conducting scientific and statistically sound evaluations.

Program Participants

Internal Stakeholders

The Ministry of Forests' Forest Practices Branch, in collaboration with Research Branch; Resource Tenures and Engineering Branch; forest regions and districts; and the Ministry of Water, Land and Air Protection, Biodiversity Branch, is leading the coordination and development of the evaluation program through the FRPA Resource Evaluation Working Group (FREWG). The primary role in coordinating the program is to ensure that scientifically based and peer-reviewed protocols are developed for FRPA resource evaluations, that evaluation efforts are done in collaboration with other existing evaluation initiatives, and that stakeholders are fully involved in the evaluation process.

It is envisioned that the provincially coordinated evaluation program will focus mainly on addressing specific resource value priority issues on a project basis, and be conducted by resource evaluation teams consisting of both branch and regional staff. A complementary forest stewardship plan monitoring program will be managed out of each region and district through a coordinated program that will determine what gets evaluated based on local needs and concerns.

Evaluation and monitoring activities at the regional and district level, particularly monitoring the results of forest stewardship plans and trends in resource values, will play a critical role in the overall evaluation of FRPA, and be linked to provincial evaluation program activities. Regional and district activities are likely to include:

- Monitoring the effectiveness of forest stewardship plan strategies, practices, and results as well as alternative forest management strategies in Code Pilots;
- Using results of monitoring to improve evidentiary requirements for future forest stewardship plans that contain similar proposed strategies and results;
- Identifying resource stewardship issues that require follow-up analysis and resolution;
- Identifying resource value/sub-value trends within each region;
- Identifying and recommending topics for evaluation under the evaluation program, and leading or assisting in the evaluations; and
- Recommending options to improve forest practices by modifying best management practices, policies, legislation or training.

External Stakeholders

External stakeholders include the academic community, non-government organizations, the forest industry, municipalities and regional districts, First Nations groups, other provincial ministries, provincial and federal agencies, and any other groups or organizations that may be affected by the *Forest and Range Practices Act*.

Input from external stakeholders will be sought throughout all phases of the evaluation program to ensure that stakeholder needs, priorities and concerns are identified and addressed. The Forest Minister's Practices Advisory Council will serve as the primary point of contact for external stakeholder involvement. Effective two-way communication with stakeholders will be established and maintained to ensure stakeholders are kept apprised of ongoing projects and to facilitate understanding and awareness of the program. Mechanisms are in place to enable stakeholders to provide technical input into the design, implementation and analysis of the evaluation program, as well as individual evaluation projects. Opportunities for stakeholder review and comment on program initiatives will also be provided.

The Evaluation Process

The effectiveness evaluation program identifies, prioritizes and, in conjunction with stakeholders, conducts timely, scientifically valid and appropriate FRPA resource value evaluations, with valuable input from operational and forest stewardship plan monitoring from regions and districts. The general program planning process is as follows:

- Resource Value Team Leaders, in consultation with internal and external stakeholders, compile a list of relevant evaluation questions with estimated time and budget requirements, and priority rankings (these evaluation questions will be directly linked to the budget planning process and individual performance measures). This list is forwarded to the FRPA Resource Evaluation Working Group (FREWG).
- FREWG reviews submitted evaluation questions and recommends priority projects to the FRPA Joint Management Committee.
- The FRPA Joint Management Committee decides which priority projects to fund in consultation with the Evaluation Program Sponsor (Chief Forester).
- Resource Value Team Leaders work together with Evaluation Project Leaders to develop or refine appropriate indicators, and data collection and analysis methodologies, and refine budget requirements for approved projects.
- Evaluation Project Leaders conduct approved evaluation projects in consultation with Resource Value Team Leaders.
- FREWG is responsible for reporting on the results of projects under the evaluation program.

Occasionally, evaluation priorities (e.g., executive-level issues) will emerge outside the regular planning process and require immediate attention. These types of priorities will receive special consideration and be incorporated appropriately into the project ranking scale.

Types of Evaluations under the Program

Depending on available funding and priorities, the types of effectiveness evaluation projects conducted under the evaluation program can range from short duration, geographically limited or single-topic evaluations to complex multi-year or multi-value evaluations. In ascending order of detail, the various types of evaluations carried out under the program include routine, extensive and intensive evaluations. All levels of evaluations use a set of indicators to identify the effects of forest management on specific resource values.

Routine evaluations are low intensity, overview evaluations that use relatively simple qualitative indicators that can be obtained at most sites, such as visual estimates or yes/no answers. Routine evaluations may, in many instances, be conducted by district staff during forest stewardship plan monitoring activities. Extensive evaluations generally involve quantitative data collection using visual estimations of categorical data for specified indicators at randomly selected sites. Extensive evaluations will mostly be conducted by regional and district staff during forest stewardship plan monitoring activities or other regional or district priorities. Intensive evaluations involve quantitative data collection and analysis with comparisons to established controls, and will largely be conducted through the provincially coordinated evaluation program on a project basis. A fourth type of evaluation is the validation evaluation (primarily a research tool), which is used to verify existing assumptions underlying targets, goals or standards.

Linkages with other Monitoring/Evaluation Programs

The FRPA Resource Evaluation Program is linked to the work of several other agencies, and will share data and information with a number of complementary monitoring and evaluation initiatives in British Columbia, including:

- FRPA Administrative Effectiveness Evaluation Program (MOF Resource Tenures and Engineering Branch);
- Ministry of Water, Land and Air Protection (MWLAP) biodiversity and environmental monitoring programs;

continued on page 4

Linkages with other Monitoring/Evaluation Programs – continued

- MOF and MWLAP compliance and enforcement programs;
- Forest Practices Board audits and special investigations;
- Certification audits;
- National Criteria and Indicators Reporting; and
- Provincial State of the Forest Reporting.

A clear understanding of the linkages with these other agencies is important to ensure that the evaluation program's budget and staff resources are allocated in an efficient and effective manner. Representatives from these agencies are engaged at various levels in the evaluation program.

One linkage of particular interest is Compliance and Enforcement (C&E). Activities carried out under the evaluation program will not duplicate the efforts of C&E programs. The mandate of C&E is to ensure compliance with, and enforcement of, legislation. Therefore, C&E staff will not participate in the evaluation program. However, as part of normal operating practices, C&E staff will keep their compliance databases up-to-date (e.g., Compliance Information Management System), and non-confidential data relevant to effectiveness evaluation priorities and projects may be requested and used by staff during district, regional and evaluation program monitoring and evaluations.

Program Partnerships

Limited government resources are available to initiate and operate a modest evaluation program. The future scope and scale of the program will be a function of government funding and resource contributions from external partners. The goal of the program is to gradually increase capacity over time through the success of individual projects and the creation of innovative funding and partnership relationships.

Contributions from partners will serve to strengthen the overall evaluation program. Potential partners may include external stakeholders, such as the forest industry or the academic community, and would likely include stakeholders that are already participating as team members under the program. In most cases, it is anticipated that contributing partners will want to be represented on project teams that oversee the projects the partners are supporting.

Partner contributions could benefit evaluation projects in a number of ways, such as providing:

- Financial support;
- Project leaders;
- Existing data, additional information, local knowledge;
- Field staff;
- Data analysis staff;
- Project operating funds; or
- Logistical support.

A protocol for potential partners is currently under development.

Quality Assurance

A quality assurance plan for the evaluation program is currently being developed to ensure each component of the program has quality assurance protocols. All program deliverables will be subject to a review and approval process. Quality control for each deliverable will be covered under the quality assurance plan.

Communications

A communications plan for the program is being developed to include protocols for all aspects of report preparation, writing, technical reviews, approvals, and information transfer to stakeholders. Communication principles will include the following:

- All evaluation program reports will be objective and impartial.
- Approved final reports will be made available to the public.
- Reporting of project findings on high priority FRPA issues will be conducted cooperatively between appropriate agencies.

Quarterly status reports will be provided to the Evaluation Program Sponsor and senior management. Status reports will also be made available to internal and external stakeholders through posting on the evaluation program website.

2003 Evaluation Projects

Planning and Development of the FRPA Resource Evaluation Program

The FRPA Resource Evaluation Program Charter defining the purpose, objectives, scope, deliverables, stakeholders, structure and management of the program was developed by the FRPA Resource Evaluation Working Group and approved in October 2003. A copy of the charter is available at: (<http://www.for.gov.bc.ca/hfp/pubsmonitoring.htm>)

Development and Testing of Routine Indicators for Riparian, Soils and Stand-level Biodiversity Values

Three FRPA resource values (riparian, soils, stand-level biodiversity) were selected as a basis for gaining experience in developing and implementing scientifically valid indicators. Each of these projects developed a set of draft routine, and in some cases, extensive field indicators for evaluating the designated resource value. The draft indicators were field tested by the Forest Practices Board.

Routine Indicator Workshop

Results from the routine indicator projects for riparian, soils and stand-level biodiversity resource values were discussed at a workshop in January 2004. Project team members collaborated to develop recommendations and procedures for developing routine indicators and conducting routine evaluations, which can be used to guide future evaluation projects.

Evaluation of Cutblock Size and Distribution

This evaluation is reviewing cutblocks harvested between 1996 and 2002 to determine average cutblock size by forest region. The evaluation will also review natural disturbance history (pests and fire) in the regions to determine if cutblock size can be correlated with the size of natural disturbances in the region.

Evaluation of Invasive Alien Plants and Bio-agents

This evaluation is measuring the effectiveness of the Invasive Alien Plant Program on individual target plant species and the plant community as a whole.

Phase II Wildlife Tree Retention Evaluation

The Phase II Wildlife Tree Retention Evaluation builds on the Phase I Wildlife Tree Retention Evaluation completed in March 2003. (see: <http://www.for.gov.bc.ca/hfp/pubsmonitoring.htm>). Phase II is collecting additional data for the BWBS BEC zone, as well as published baseline data for three BEC zones (ICH, CWH and ESSF) for comparison with results found in Phase I.

For More Information

For more information on the **FRPA Resource Evaluation Program**, please contact any member of the **FRPA Resource Evaluation Working Group**:

Frank Barber	MoF — Forest Practices Branch	Frank.Barber@gems6.gov.bc.ca	250 387 8910
Peter Bradford	MoF — Forest Practices Branch	Peter.Bradford@gems1.gov.bc.ca	250 356 2134
Denis Collins	MoF — Coast Forest Region	Denis.Collins@gems4.gov.bc.ca	250 751 7121
Greg Jones	MWLAP – Biodiversity Branch	Greg.Jones@gems3.gov.bc.ca	250 356 8186
Shirley Mah	MoF — Research Branch	Shirley.Mah@gems8.gov.bc.ca	250 356 2180
Wayne Martin	MoF — Northern Interior Region	Wayne.Martin@gems9.gov.bc.ca	250 565 6102
Brian Nyberg	MoF — Forest Practices Branch	Brian.Nyberg@gems6.gov.bc.ca	250 387 3144
Yvonne Parkinson	Northern Interior Region	Yvonne.Parkinson@gems1.gov.bc.ca	250 565 6207
Hal Reveley	MoF — Coast Forest Region	Hal.Reveley@gems4.gov.bc.ca	250 751 7097
Ken Soneff	Southern Interior Forest Region	Ken.Soneff@gems7.gov.bc.ca	250 828 4164
Gerry Still	MoF — Research Branch	Gerry.Still@gems1.gov.bc.ca	250 387 6579
Craig Sutherland	MoF — Southern Interior Forest Region	Craig.Sutherland@gems4.gov.bc.ca	250 828 4124
Richard Thompson	MWLAP – Biodiversity Branch	Richard.Thompson@gems2.gov.bc.ca	250 356 5467
Kristine Weese	MoF — Forest Practices Branch	Kristine.Weese@gems3.gov.bc.ca	250 558 1760
Charlie Western	MoF — Resource Tenures and Engineering Branch	Charlie.Western@gems4.gov.bc.ca	250 387 8360

External FTP site address:

<http://www.for.gov.bc.ca/ftp/HFP/external/!publish/FRPA%20Evaluation%20Program/>